

Copper Fox Metals Inc.

# Schaft Creek: Hydrology Baseline 2008

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February 2010

# SCHAFT CREEK: Hydrology Baseline 2008

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**Prepared for:**



Copper Fox Metals Inc.

**Prepared by:**



Rescan™ Tahltan Environmental Consultants

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# **Executive Summary**



## Executive Summary

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A baseline hydrological monitoring program was initiated in the Schaft Creek area in 2006. In 2007 and 2008, hydrological monitoring continued in the area within the Schaft Creek and Mess Creek watersheds. This report presents the methods, results and analyses of hydrometric data collected in the Schaft Creek Project area in 2008. Results from 2006 and 2007 monitoring have been reported previously (RTEC 2007, 2008 respectively).

At each station an automated pressure transducer and data logger recorded water level readings every ten minutes. The automated monitoring period extended from late April to late November, except for the HC-1 station, which remained active during the previous (2007/2008) winter period. In total, 48 manual flow measurements were conducted employing the velocity-area and salt dilution techniques. At each monitoring station, previously-established stage-discharge rating curves were updated.

Annual runoff (Table ES-1) was observed to range from 1,870 mm (HC-1) to 400 mm (SK-2) across the Project area. Except for HC-1, runoff values were the lowest since the inception of the monitoring program in 2006. For most stations, the majority of the annual runoff occurred in June, July, and August with up to 69% of flow occurring in this period (Table ES-2). The annual peak flow recorded at the lower elevations stations (SCTR-1, SK-1, and SK 2) was due to a spring snowmelt event in late May. The annual peak flow recorded at the higher elevations stations (HC-1, SC-2, SCTR-2, SCTR-3, and MESS-1) occurred later in the season, and was the result of a sustained rainfall event combined with residual snowmelt, and glacier melt in mid August (Table ES-3). Annual low flows (Table ES-4) across the Project area occurred during the winter when the majority of available water was stored within the snowpack.

Bathymetric surveys were conducted at Skeeter and Start Lakes, in September 2008. The Skeeter Lake average depth was 14.5 m, and a total volume of 8.77 Mm<sup>3</sup>. The average depth of Start Lake was 5.8 m, and the lake volume was 1.32 Mm<sup>3</sup>.

**Table ES-1. 2008 Annual Runoff**

Station	Area (km <sup>2</sup> )	Median Elevation (m)	Annual Runoff (mm)	Average Annual Flow (m <sup>3</sup> /s)
HC-1	87.3	1,620	1,870	5.19
SC-2	216.0	1,330	1,430	9.77
SCTR-1	5.5	1,060	520	0.09
SCTR-2	75.6	1,570	1,201	2.88
SCTR-3	8.1	1,860	1,140	0.29
SK-1	16.8	1,220	440	0.23
SK-2	38.6	1,090	400	0.49
MESS-1	212.7	1,370	1,170	7.92

**Table ES-2. 2008 Seasonal Runoff Distribution**

Station	Percent of Annual Runoff											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
HC-1	1	<1	<1	1	8	14	22	30	12	9	3	1
SC-2	1	<1	<1	1	7	12	25	32	11	7	2	1
SCTR-1	1	<1	<1	2	29	22	13	9	7	10	5	1
SCTR-2	<1	<1	<1	1	8	12	23	29	15	7	1	1
SCTR-3	<1	<1	<1	<1	8	14	26	32	11	6	2	1
SK-1	1	1	1	1	14	20	25	18	7	6	4	2
SK-2	2	1	2	3	18	19	17	13	8	9	7	3
MESS-1	1	1	<1	1	10	22	22	16	6	6	10	4

**Table ES-3. 2008 Annual Instantaneous Peak Flow**

Station	Flow (m <sup>3</sup> /s)	Yield (L/s/km <sup>2</sup> )
HC-1	43.3	496
SC-2	71.3	330
SCTR-1	0.78	142
SCTR-2	27.9	369
SCTR-3	3.18	393
SK-1	1.38	82
SK-2	2.24	58
MESS-1	55.7	262

**Table ES-4. 2008 Annual Low Flows**

Station	June through September (m <sup>3</sup> /s)	Winter (m <sup>3</sup> /s) <sup>a</sup>
HC-1	4.02	0.06
SC-2	4.25	0.86
SCTR-1	0.07	0.03
SCTR-2	1.16	0.09
SCTR-3	0.14	0.17
SK-1	0.14	0.01
SK-2	0.39	0.04
MESS-1	3.79	0.23

<sup>a</sup> Based on winter manual flow measurements

# Acknowledgements



# Acknowledgements

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This report was written and produced by Rescan-Tahltan Environmental Consultants (RTEC).

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# 1. Introduction



# 1. Introduction

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This report describes the results from the 2008 Schaft Creek Project baseline surface hydrology monitoring program. The report presents the methods used to collect and analyze hydrometric data in the Project area. The data are used to calculate key hydrological indices such as annual runoff, seasonal runoff distribution, and extreme (high and low) flows experienced in the Project area during 2008 and compares these to regional data.

## 1.1 PROJECT SUMMARY

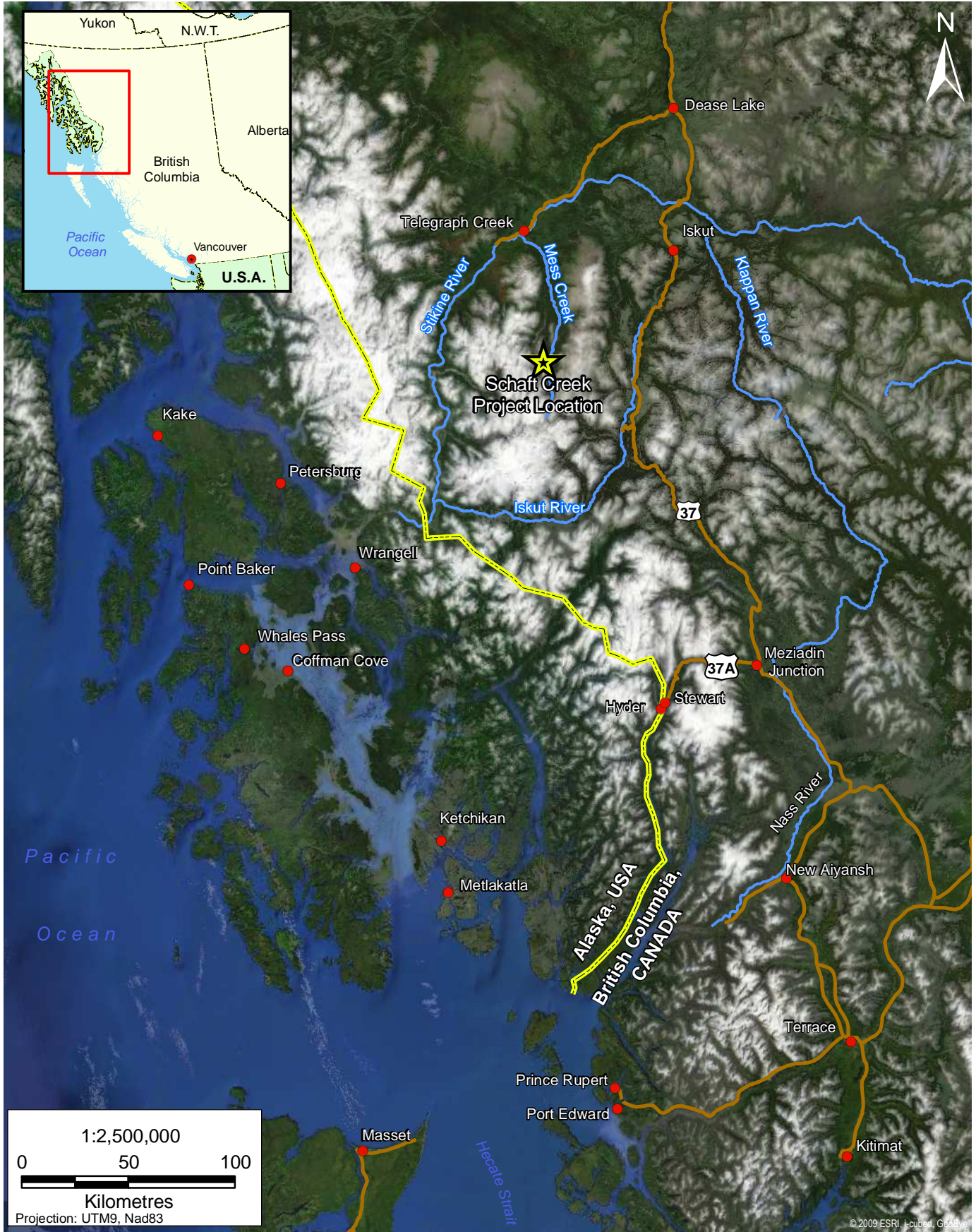
Copper Fox Metals Inc. (Copper Fox) is a Canadian mineral exploration and development company focused on developing the Schaft Creek deposit located in northwestern British Columbia, approximately 60 km south of the village of Telegraph Creek (Figure 1.1-1). The Schaft Creek deposit was discovered in 1957 and has since been investigated by prospecting, geological mapping, geophysical surveys as well as diamond and percussion drilling. The deposit is situated within the upper source regions of Schaft Creek, which drains northerly into Mess Creek and onwards into the Stikine River. The Stikine River is an international river that crosses the US/Canadian border near Wrangell, Alaska. The Schaft Creek deposit is a polymetallic (copper-gold-silver-molybdenum) deposit located in the Liard District of northwestern British Columbia (Latitude 57° 22' 42"; Longitude 130°, 58' 48.9"). The property is comprised of 40 mineral claims covering an area totalling approximately 20,932 ha within the Cassiar Iskut-Stikine Land and Resource Management Plan (Figure 1.1-2).

The Schaft Creek Project is located within the traditional territory of the Tahltan Nation. Copper Fox has been in discussions with the Tahltan Central Council (TCC) and the Tahltan Heritage Resources Environmental Assessment Team (THREAT) since initiating exploration activities in 2005. Copper Fox will continue to work together with the Tahltan Nation as work on the Schaft Creek Project continues.

The Schaft Creek Project entered the British Columbia Environmental Assessment (EA) process in August 2006. Although a formal federal decision has not yet been made, the Project will likely require federal approval as per the *Canadian Environmental Assessment Act*. Copper Fox has targeted the third quarter of 2010 for submission of their Schaft Creek EA Application.

The current mine plan would see ore mined from an open pit at a rate of 100,000 tonnes per day. The mine plan includes 812 million tonnes of Measured and Indicated Mineable resources providing for an estimated 23-year mine life. The Project is estimated to generate up to 2,100 jobs during the construction phase and approximately 700 permanent jobs during mine operations.

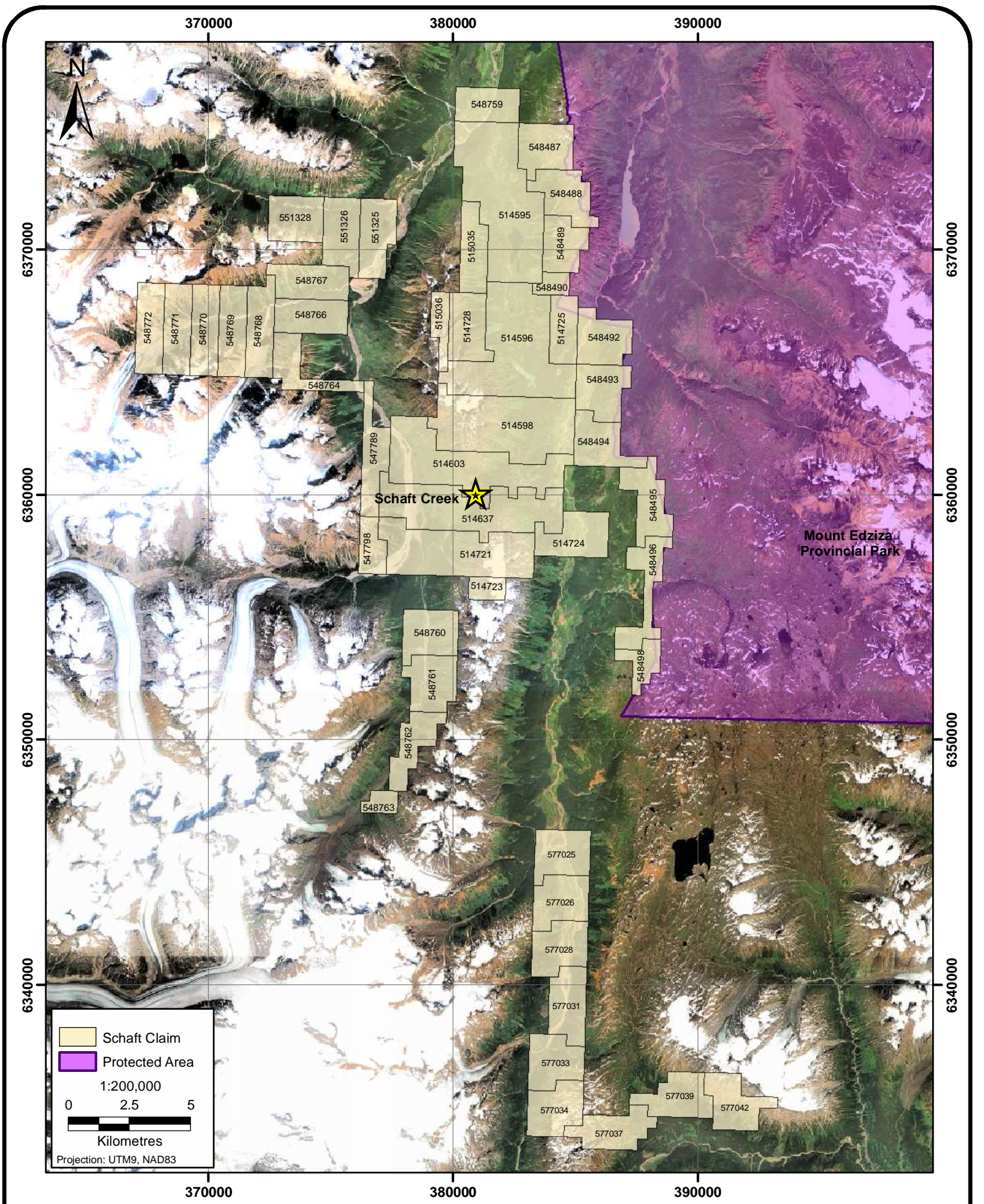
The deposit will be mined with large truck/shovel operations and typical drill and blast techniques. The ore will be crushed, milled, and filtered on site to produce separate copper and molybdenum concentrates. The Process Plant will include a typical comminution circuit (Semi-Autogenous Mill, Ball Mill, and Pebble Crusher) followed by a flotation circuit and a copper circuit with thickener, filtration and concentrate loadout and transportation. The Process Plant includes a designated molybdenum circuit with thickener, filtration, drying and bagging. A tailings thickener and water reclaim system will be used to recycle process water. The circuit will have a design capacity of 108,700 tonnes per day and a nominal capacity of 100,000 tonnes per day (36,000,000 tonnes per year). Approximately 293,000 tonnes of concentrates will be produced each year, which will be transported via truck to the port of Stewart, BC for onward shipping to markets.



# Location Map for Schaft Creek Project

FIGURE 1.1-1





Copper Fox will construct an access road to the mine site (Schaft Creek Access Road; Schaft Road) to the 65.1 km point of the Galore Creek Access Road (Galore Road). The Schaft Road will cover a distance of 39.5 km from the Galore Road to the Schaft mine site (Figure 1.1-3). Both the Galore and Schaft roads will be gravel roads with a six-metre wide driving surface. Pullouts and radio controls will be used to manage two-way traffic on the road. The Schaft Road will be a private road used to service the Schaft Creek mine.

The Galore Road is a fully permitted multi-use road: British Columbia Ministry of Forests and Range Special Use Permit (S24637). Galore Creek Mining Corporation is constructing the Galore Road. Currently, Galore Creek Mining is only planning to construct the Galore Road to 40 km while they review the current Galore Creek Project for which the road was to service. Copper Fox will engage Galore Creek Mining with respect to the completion of the Galore Road, and if necessary, arrange to transfer the permit to Copper Fox as the Schaft Creek Project advances.

The Galore Road connects to Highway 37 near Bob Quinn Lake. The total road distance from the Schaft mine site to Highway 37 is 105 km. The majority of the 39.5 km Schaft Road is within the Mess Creek Watershed. In order to avoid geohazards along the Mess Creek valley, the Schaft Road will cross Mess Creek twice (Figure 1.1-3). Mess Creek is considered navigable per Transportation Canada criteria.

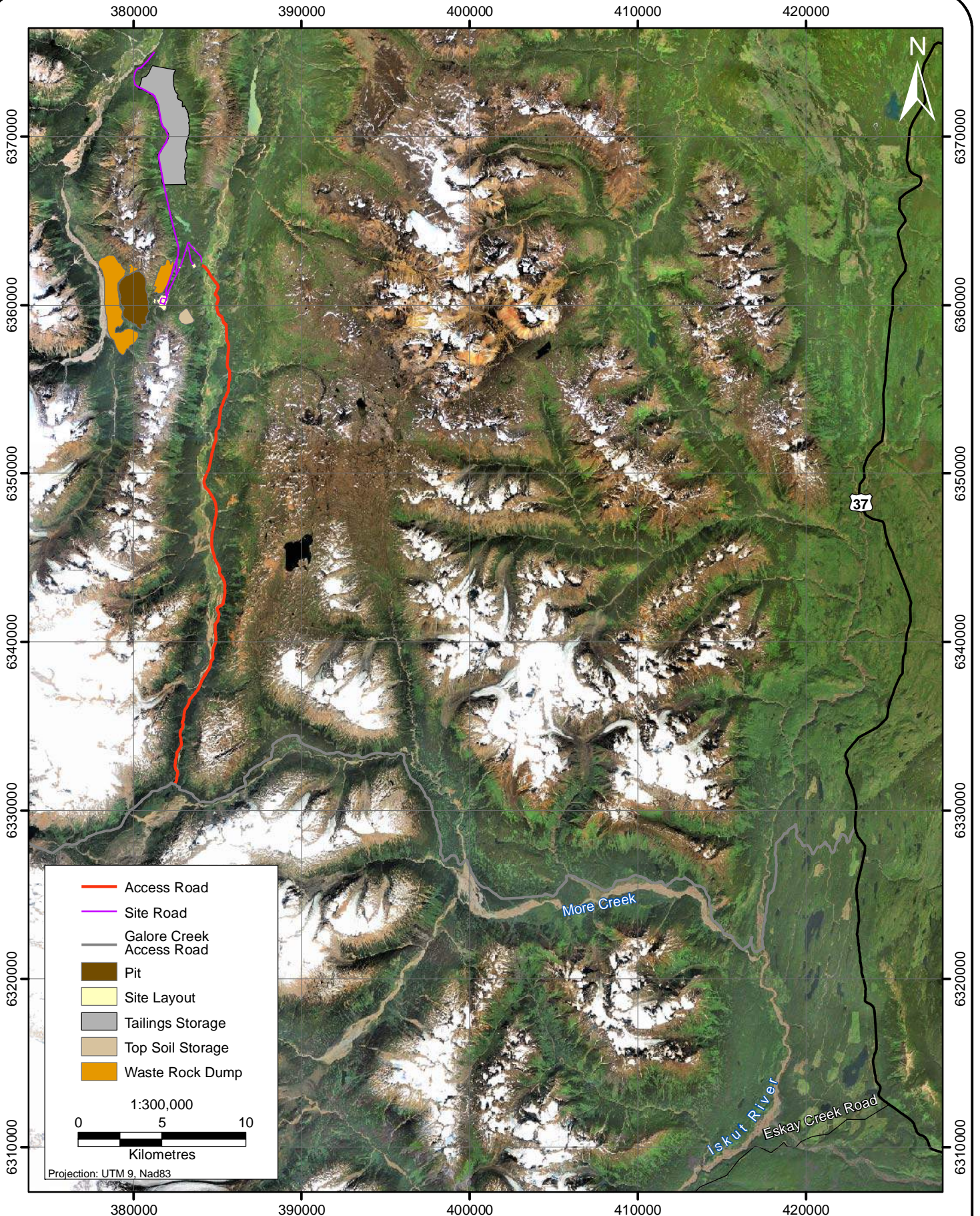
After crossing Mess Creek at the north end of the Schaft Road (32.5 km), the route rises up the side of Mount LaCasse crossing Shift Creek (10 m bridge) and Big B Creek (10 m bridge). The route terminates at Snipe Lake (39.5 km). Conventional 30-tonne trucks will be used to transport concentrate from the mine site to the Bob Quinn area along the Schaft and Galore roads. From Bob Quinn to Stewart, convention B-train commercial truck haulage can then be used along Highway 37 and 37A. There will be 30 concentrate trucks along this route over a 24-hour period, seven days per week.

Electrical power to the mine site will be provided via a 138 kV transmission line, extending from Bob Quinn Lake to the Project along the proposed corridor for the Galore and Schaft roads. The proposed transmission line assumes that electrical power will be supplied from British Columbia Transmission Corporation's (BCTC) proposed new 287 kV Northwest Transmission Line from a point near Bob Quinn Lake.

The Schaft Pit will encompass an area of 4.9 km<sup>2</sup> at the end of the mine life (Figure 1.1-4). The Pit will extend 330 m below the current elevation (520 masl). An ore stockpile and crusher will be located between the Pit and Schaft Creek. Crushed ore will be conveyed to the Plant site on the saddle just east of the Pit. Tailings from the Process Plant will be piped to the Skeeter Tailings Storage Facility (TSF) as slurry (55% solids).

Over the life of the mine, the Project will generate over 812 million tonnes of tailings, which will be managed in the Skeeter TSF. The TSF will not span the low relief watershed divide between Skeeter and Start watersheds. The Skeeter TSF will require three embankments to contain the tailings generated over the life of the mine (Figure 1.1-5). Based on average climatic conditions, the TSF will have a positive water balance. Discharge from the TSF will be to Skeeter Creek.

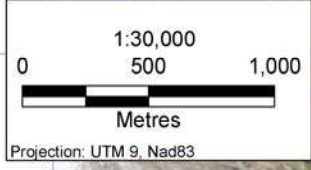
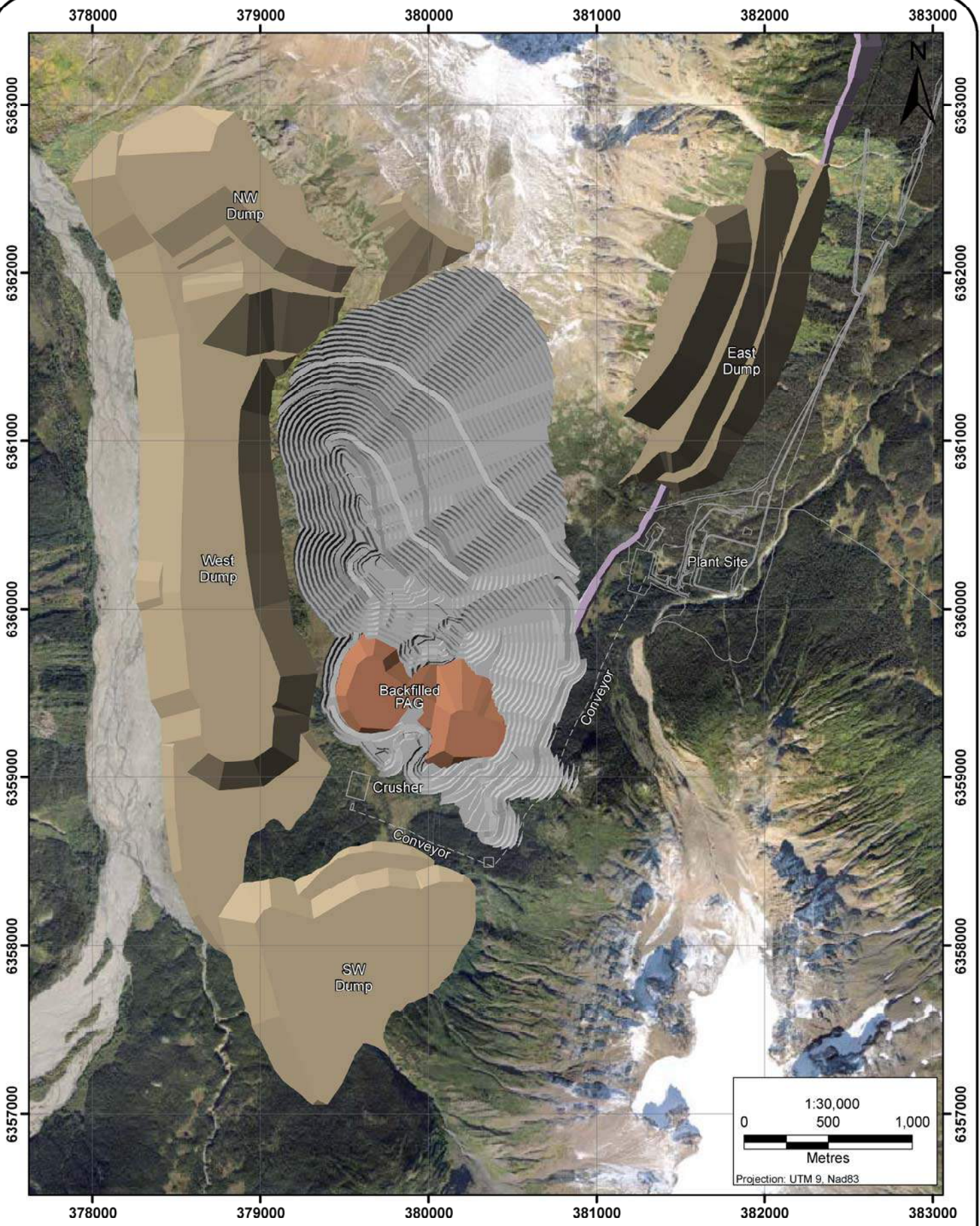


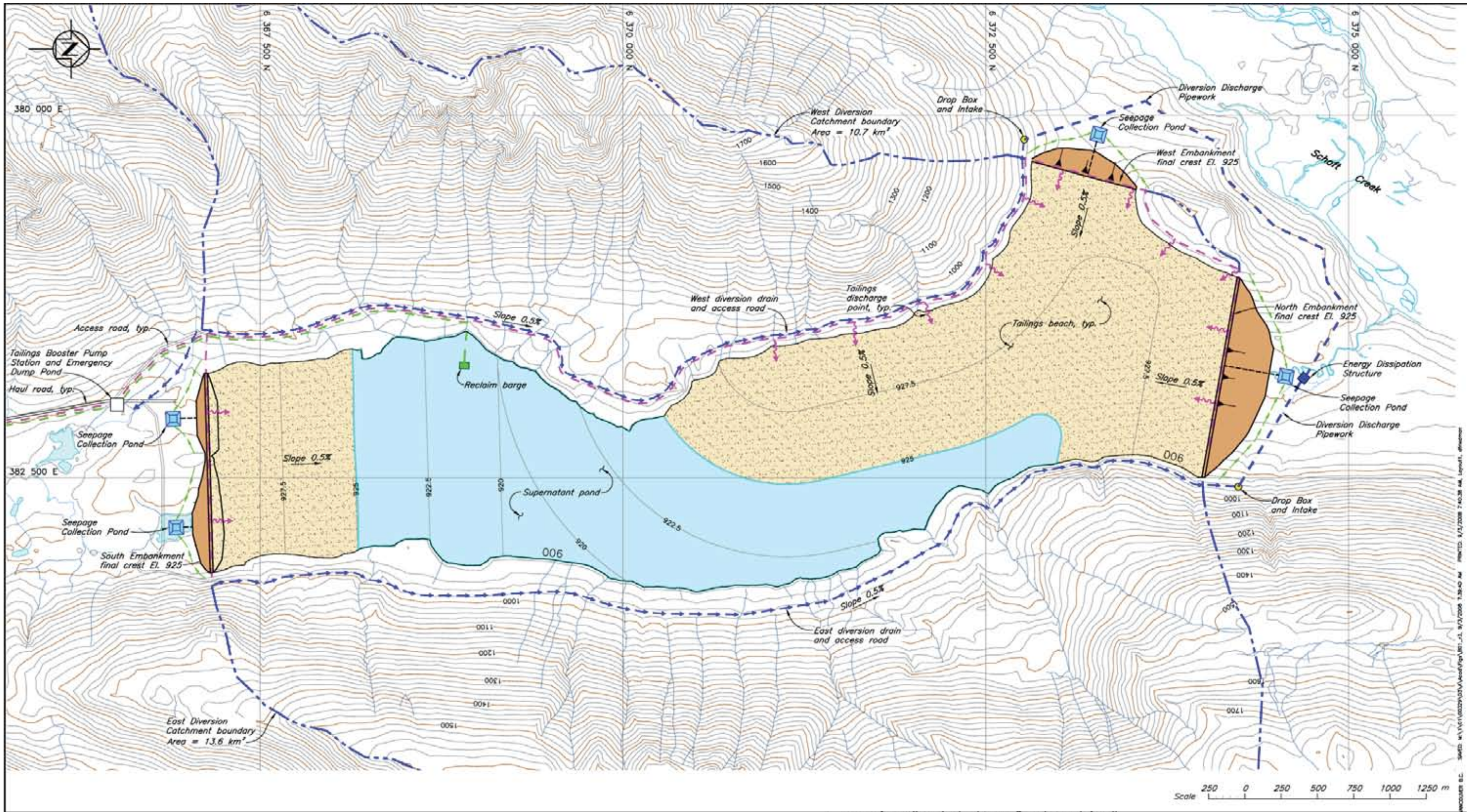


# Schaft Creek Access Road Mess Creek Valley Option



FIGURE 1.1-3





Source: Knight Piésold Consulting

Note: This layout represents the tailings storage facility in the final years of operation prior to closure. Several years before the end of operations and closure, the tailings deposition pattern will be modified to relocate the supernatant pond towards the north of the facility, where a permanent spillway will be constructed in the west abutment of the North Embankment.



### Schaft Creek Project - Skeeter Tailings Storage Facility

FIGURE 1.1-5



The Project will generate an estimated 1,547 million tonnes of waste rock. Waste rock dumps are proposed around the perimeter of the Schaft Pit with the majority of the material being placed on the east side of Schaft Creek (Figure 1.1-4). The current plan assumes the waste rock will be non-acid generating and will not leach metals at or near neutral pH. The plan is subject to change as work progresses on the metal leaching and acid rock drainage program.

The Project will be a fly-in, fly-out operation, and a new airfield capable of handling a Boeing 737 will be constructed to the east of the Pit (Figure 1.1-3). The preliminary design includes a 1,600 m compacted gravel landing strip, terminal building, fuelling facilities, small maintenance facility and control and lighting systems.

A permanent camp will be constructed to support approximately 700 employees. Other facilities include a truck shop, warehouse, administration, maintenance laboratory, explosive storage, water treatment facilities, and potable water storage.

## 1.2 HYDROLOGICAL SETTING

The majority of mine site infrastructure including the open pit will be located in the Schaft Creek watershed (702 km<sup>2</sup>). Schaft Creek is a tributary of Mess Creek (2,330 km<sup>2</sup>), which in turn flows into the Stikine River (51,600 km<sup>2</sup>) near the village of Telegraph Creek (Figure 1.2-1). After its confluence with Mess Creek, the Stikine River flows to the southwest discharging to the Pacific Ocean near Wrangell, Alaska.

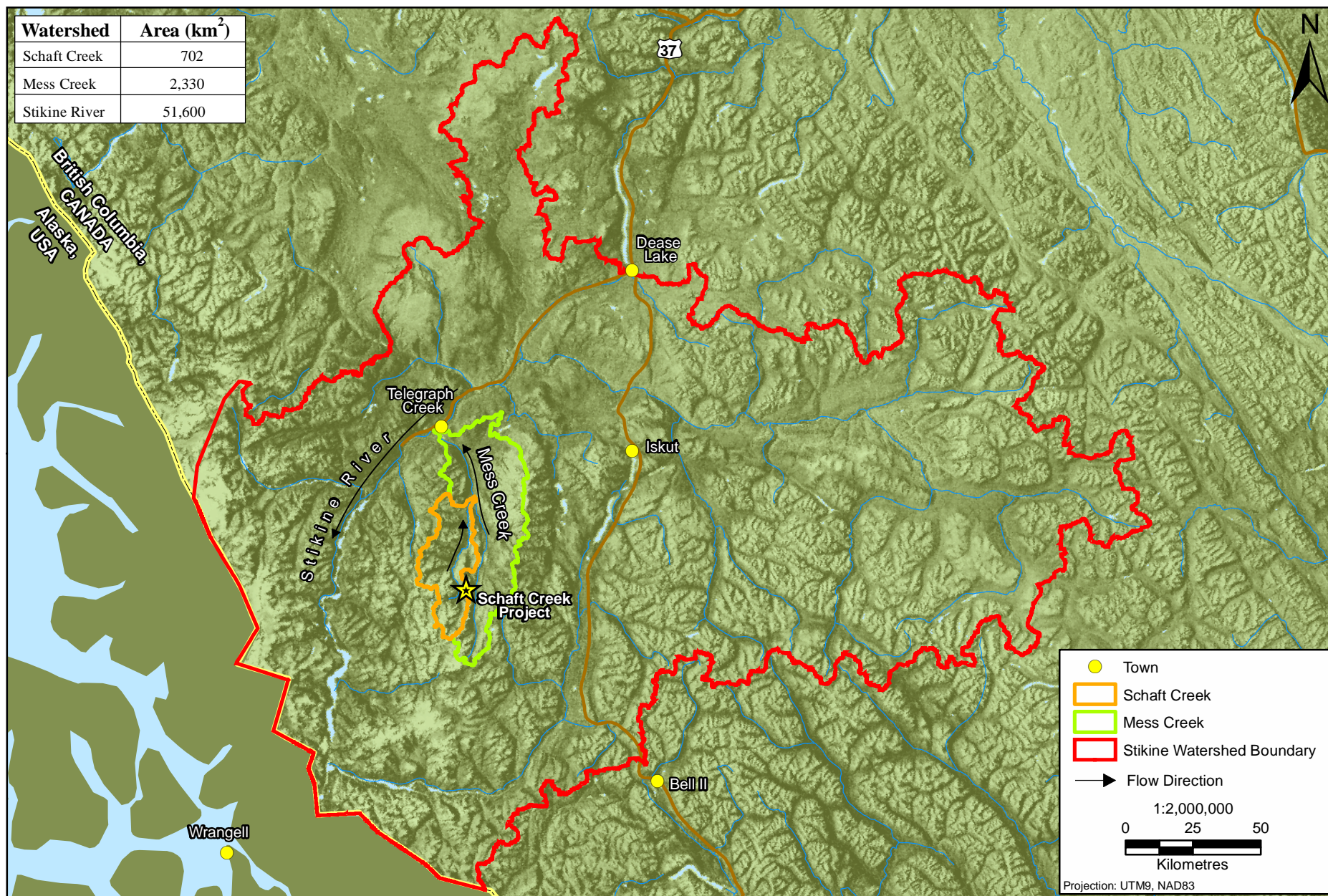
Based on the existing mine plan, proposed sites of the main Project components are dispersed over a number of sub-watersheds within the Schaft Creek catchment, including Hickman Creek and Skeeter Lake (Table 1.2-1, Figure 1.2-2).

**Table 1.2-1. Hydrological Setting of Main Project Components**

Watershed	Area (km <sup>2</sup> )	Tributary of:	Proposed Project Components Located Within Catchment
Skeeter Lake	38.6 <sup>a</sup>	Schaft Creek	TSF
Schaft Creek	702	Mess Creek	Open pit; North, West, and South waste rock dumps; mill site, and the TSF
Mess Creek	2,330	Stikine River	Access road, airstrip, operations camp, East waste rock dump, and all components in the Schaft Creek watershed

<sup>a</sup> Area at confluence of the Skeeter Lake outflow creek and Schaft Creek.

The Project area watersheds lie within the Tahltan Highland of the Boundary Ranges and within a transition zone between the wet coastal region and the drier interior of British Columbia. The regional hydroclimate of north-western British Columbia is dominated by weather systems generated over the Pacific Ocean and the precipitation gradient is strongly influenced by orographic effects caused by mountainous topography (Figure 1.2-3). The project area watersheds contain mountain peaks with elevations in excess of 2,500 m. Rivers typically flow north-south along glacially scoured, U-shaped valleys (Plate 1.2-1 to 1.2-4). Headwater areas of the main Project area watersheds can be substantially glacierized (e.g., Hickman Creek, Schaft Creek), although lower elevation sub-watersheds do exist that lack glaciers (e.g., Skeeter Lake Watershed).



**Figure 1.2-2. Local Hydrological Setting of Schaft Creek Project Area**

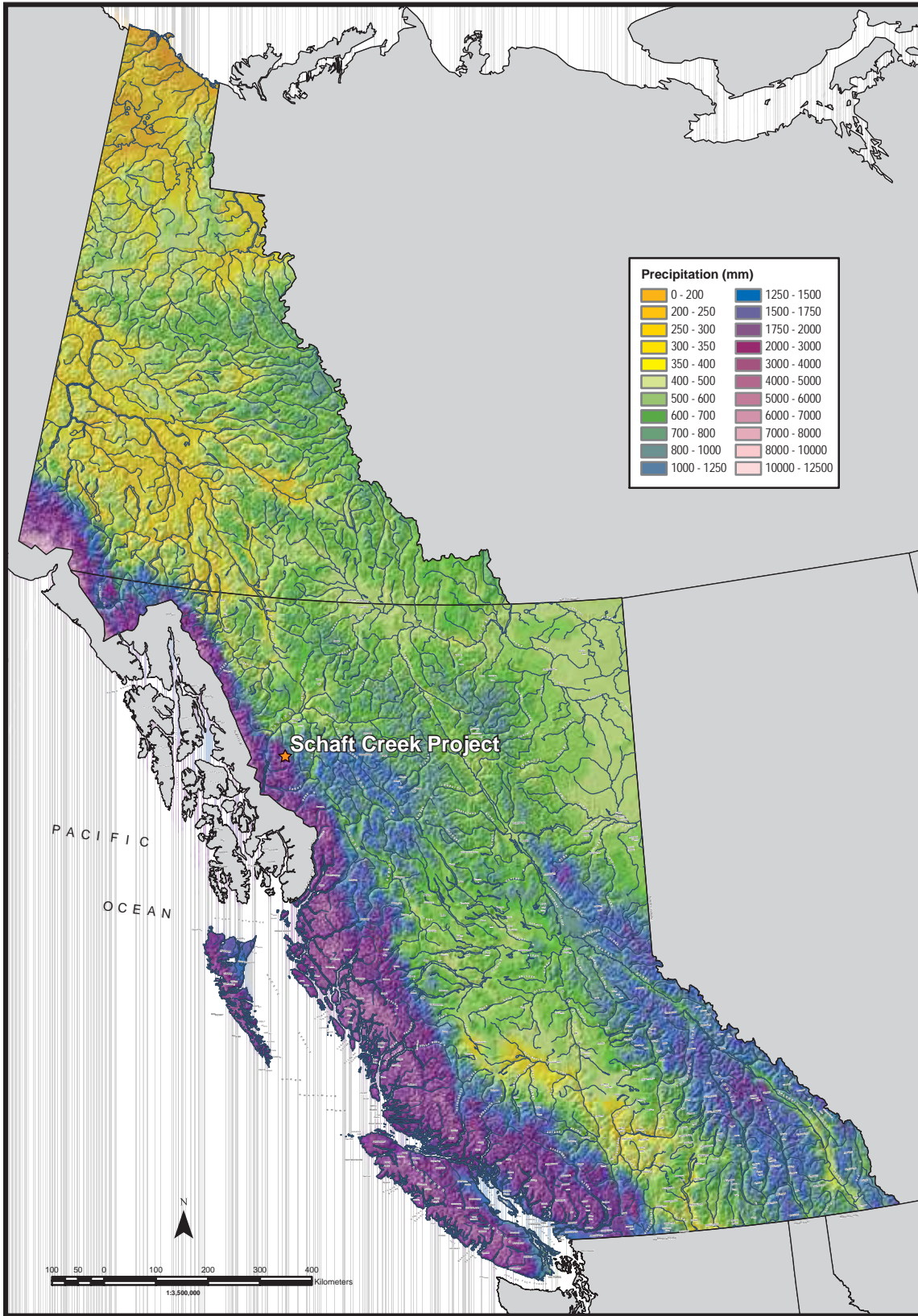
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*Plate 1.2-1. Schaft Creek downstream of SC-2, view towards the north.*



*Plate 1.2-2. Schaft Creek, downstream of SC-2, view south towards LaCasse Mountain.*



Produced by: Environment Canada, Applications & Services, Data Management Section. March 28, 2002

FIGURE 1.2-3



### PRISM Mean Annual Precipitation over B.C. and the Yukon



*Plate 1.2-3. Mess Creek with view towards the north and Mount LaCasse.*



*Plate 1.2-4. Skeeter Lake, view to the north.*

Based on data from regional hydrometric monitoring stations operated by the Water Survey of Canada (WSC), a typical hydrological year for watercourses near the Project area can be divided into four main flow periods:

- **Winter:** characterized by snow and/or ice covered streams with low to negligible stream flow depending on the elevation of the stream and catchment area.



- **Spring/freshet:** characterized by high flows due to snowmelt and rain-on-snow events. This is typically the period that contains the annual peak flow.
- **Summer:** characterized by moderate flows, with flow rates decreasing throughout summer resulting from a diminishing input from snowmelt. Flows from heavily glaciated catchments will be supplemented by glacial melt. Peak flow events are supplied primarily by rainfall.
- **Late summer/fall:** characterized by generally moderate to low flows, but interrupted by rain-fed storm events and rain-on-snow events. Generally, peak flows during the fall remain below the magnitude of the freshet peak flows but can exceed freshet flows if a large precipitation event occurs primarily as rainfall. Between rainstorms, baseflow levels decline towards low winter flows as more and more precipitation falls in the form of snow and is stored within the snowpack.

### 1.3 OBJECTIVES

The main objective of the surface hydrology baseline monitoring for 2008 was the re-mobilization of automated stations throughout the Project area to collect continuous water level data on all major streams that might be impacted by the Project activities and to conduct a hydrometric program of stage and discharge measurements to provide the data that would allow:

- Updating of stage-discharge rating curves;
- Calculation of 2008 hydrographs; and
- Calculation of 2008 hydrological indices (i.e., annual runoff, seasonal runoff distribution, monthly flow rates, and peak and low flows).

An additional objective in 2008 was to conduct bathymetric surveys of Skeeter and Start Lakes.

## 2. Baseline Hydrological Monitoring Program



## **2. Baseline Hydrological Monitoring Program**

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This section describes the baseline hydrology monitoring program at Schaft Creek. A brief summary of work conducted in 2006 and 2007 is provided, followed by a detailed presentation of methods and results for 2008.

### **2.1 2006 AND 2007 PROGRAMS**

In the spring of 2006, eight automated hydrometric stations were installed and operated through the Schaft Creek Project area. A total of 36 manual flow measurements were made in 2006 that produced reliable stage-discharge rating curves for most of the hydrometric stations. Although the stage-discharge relationships for most stations were well-defined, two of them (SC-1 and MESS-1) were based on relatively few manual flow measurements.

The automated station network monitored flows from most of the area surrounding the proposed pit, mill site and tailings option locations. Two of the automated stations were damaged (HC-1, SC-1) and a third (HCTR-1) experienced considerable channel geometry changes during high flow events.

The 2006 monitoring program was not able to capture the onset of the spring freshet in the Project area. Installation of the stations took place at the end of May; however the onset of the freshet in the study area typically occurs in late April. The 2006 program was fully documented in the Schaft Creek Project 2006 Hydrology Baseline Report (RTEC, 2007).

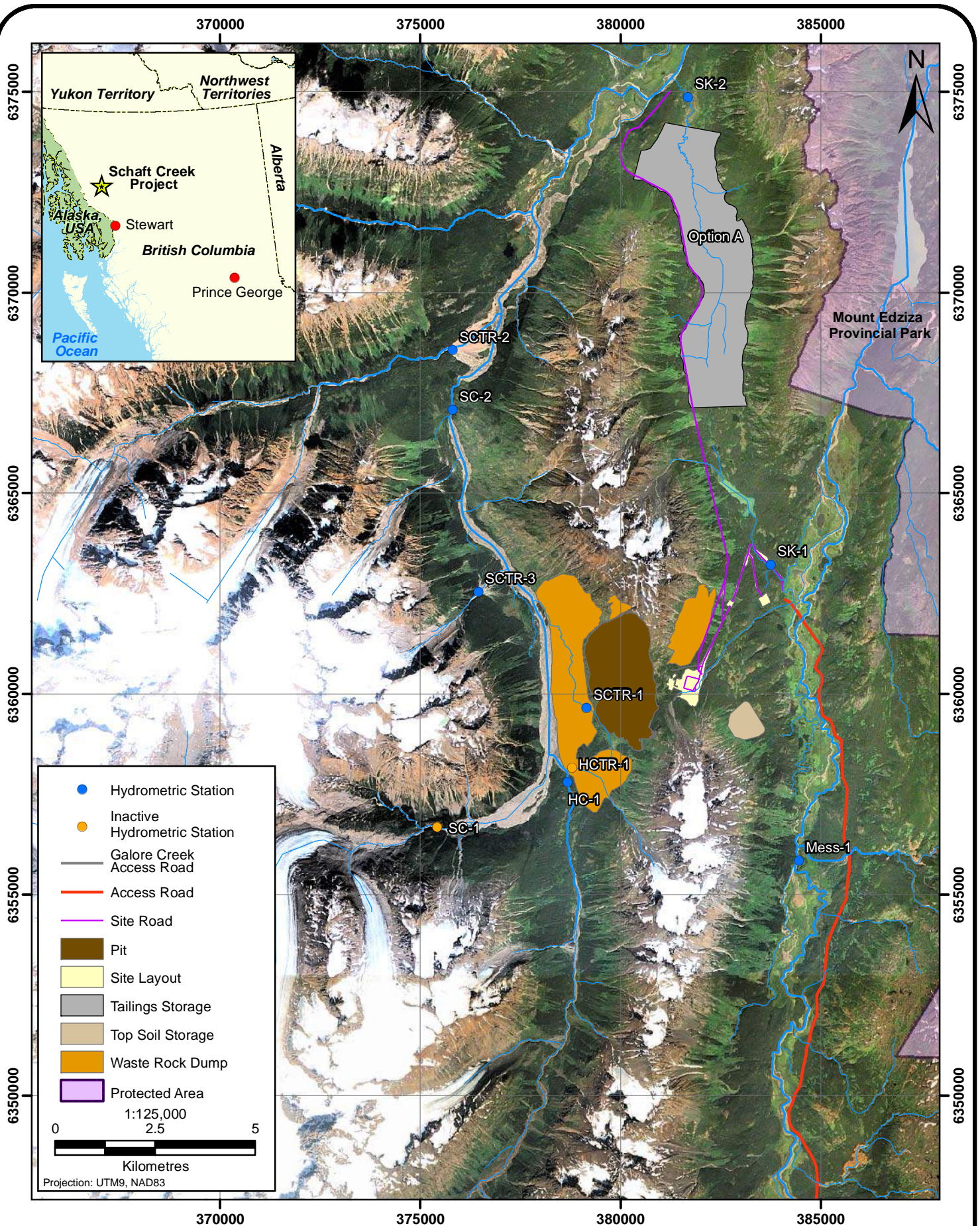
In 2007, nine automated hydrometric monitoring stations were operated within the Schaft Creek and Mess Creek drainages as part of the baseline hydrometric monitoring program. Seven of the monitoring stations (HC-1, SC-1, SC-2, SCTR-1, SK-1, SK-2, and MESS-1) operated during 2007 were located at sites where hydrometric monitoring had taken place in 2006. At two of these sites (HC-1 and SC-1) new installations were constructed in the spring of 2007 that replaced stations damaged in 2006.

Two new monitoring sites (SCTR-2, SCTR-3) were established with automated stations in the spring of 2007. SCTR-2 was installed to monitor runoff from a previously proposed tailings storage facility site. SCTR-3 was installed to act as a reference station to SCTR-1 and replaced the HCTR-1 station that was operated in 2006 but was subsequently deemed to be an inappropriate monitoring site due to activities of the main camp that resulted in multiple changes in the hydraulics of the monitoring station throughout 2006. The 2007 program was fully documented in the Schaft Creek Project 2007 Hydrology Baseline Report (RTEC, 2008).

### **2.2 2008 BASELINE PROGRAM**

#### **2.2.1 Monitoring Station Network**

Eight automated hydrometric monitoring stations were operated within the Schaft Creek and Mess Creek drainages as part of the 2008 baseline hydrometric monitoring program (Figure 2.2-1 and Table 2.2-1).



# 2008 Automated Hydrometric Monitoring Network

FIGURE 2.2-1

**Table 2.2-1. 2008 Automated Hydrometric Monitoring Stations**

Station	Location	Drainage Area (km <sup>2</sup> )	Median Elevation (m)	Glacierized Cover (%)	Installation Year	2008 Period of Operation	Notes
HC-1	378,677; 6,357,810	87.3	1,620	31	2006; new installation in 2007	January 1 to November 27	Station was left in place over the winter period.
SC-2	375,802; 6,367,093	216.0	1,330	29	2006; new installation in 2008	April 25 to November 27	A new angle iron was installed at a lower height, to capture a greater portion of annual flows.
SCTR-1	379,153; 6,359,662	5.5	1,060	0	2006	April 25 to November 27	-
SCTR-2	375,557; 6,368,569	75.6	1,571	34	2007	April 27 to November 27	-
SCTR-3	376,443; 6,362,550	8.1	1,856	50	2007	April 28 to November 27	-
SK-1	383,751; 6,363,227	16.8	1,220	0	2006	April 25 to November 27	-
SK-2	381,688; 6,374,886	38.6	1,090	4	2006	April 25 to November 27	-
MESS-1	384,455; 6,355,850	212.7	1,370	14	2006	April 25 to November 27	-

<sup>a</sup> UTM NAD83, Zone 9.

All of the monitoring stations operated during 2008 were located at sites where hydrometric monitoring had taken place in 2007. One station (SC-1), which was operated in 2007 was not reactivated in 2008. The station had been damaged in 2006 and 2007 from rocks and boulders travelling downstream. No suitable alternative location was found to install a station within the same stream reach.

The anchor structure at SC-2 used in 2006 and 2007 was replaced in 2008 with a structure installed at the same location along the stream reach but at a lower elevation. For periods of the 2007 monitoring season, water levels dropped below the level of the sensor at SC-2, which limited the period of data collection at this site. The new station installation fixed this issue, improving data collection for 2008.

All sensors and dataloggers were removed from the stations during the final field trip in late November 2008.

At each station an Instrumentation Northwest PS9800 or PS98i pressure transducer was paired with a Terrascience ELF2 data logger that recorded water level at ten minute intervals. Water level data was translated into stream flow using rating curves developed at each station.

Monitoring began at the majority of the stations in late April. Typically the stations are demobilized in late fall, at the end of the open-water period. The rating curves developed during summer months are generally not applicable for ice covered winter conditions. In addition, ice can damage the monitoring equipment. All but one (HC-1) of the automated stations were demobilized for the 2007/2008 winter. The HC-1 station recorded data during the winter months, and was sufficiently submersed to prevent damage from freezing.

### 2.2.2 Manual Flow Measurements

Manual flow measurements were conducted throughout the year. When possible, manual flow measurements were obtained by the velocity-area method using a handheld velocity meter. During warmer periods a Swoffer velocity meter was employed, while during the winter (when the Swoffer meter routinely freezes) a Sontek Flowtracker acoustic Doppler velocity meter was employed. Standard provincial methodologies for manual flow measurements were adopted (MELP, 1998). Current velocities were measured at 60% of the flow depth. Typically 20 to 30 measurements were taken across the width of a channel, with the aim of having no one measurement being more than 10% of the total discharge. The accuracy of manual flow measurements is affected by flow and channel conditions at each site, but should be less than  $\pm 15\%$ .

For much of the year, flow conditions were too dangerous to allow field personnel to cross streams in the area. Therefore, salt dilution flow gauging was used as an alternate flow measurement technique as it does not require personnel to enter the stream flow. Accuracy of the salt dilution technique is expected to be within 10% obtained by the conventional velocity-area technique. In some situations, such as high gradient, highly turbulent streams it is believed that salt dilution gauging produces better results than the velocity-area technique. For the purpose of this study, the error associated with the salt dilution method is assumed to be  $\pm 15\%$ .

At MESS-1, flow measurements were limited to the low flow periods of January to May and September to December. During the open water season flows at MESS-1 are too deep and swift to allow field personnel to perform velocity-area measurements and the relatively uniform flow and braided channels of the creek render the salt dilution gauging method inappropriate.

In total, 48 manual flow measurements were conducted during the 2008 monitoring program (Table 2.2-2, Appendix A1).

**Table 2.2-2. Summary of Manual Flow Measurements**

Station	Date	Stage, h (m) <sup>a</sup>	Flow (m <sup>3</sup> /s)	Measurement Technique
HC-1	January 30	-. <sup>b</sup>	0.425	Velocity-area with Flowtracker
	March 11	-. <sup>b</sup>	0.063	Velocity-area with Flowtracker
	April 24	0.17	0.114	Velocity-area with Swoffer
	May 24	0.65	5.627	Velocity-area with Swoffer
	July 18	0.75	9.65	Salt dilution
	September 24	0.55	3.56	Salt dilution
	November 26	0.86	0.757	Velocity-area with Swoffer
SC-2	January 30	-. <sup>b</sup>	0.86	Velocity-area with Flowtracker
	March 11	-. <sup>b</sup>	0.10	Velocity-area with Flowtracker
	April 25	-. <sup>b</sup>	0.93	Velocity-area with Swoffer
	May 25	0.83	13.51	Salt dilution
SC-2 cont'd	July 18	1.34	20.88	Salt dilution
	September 23	0.39	6.55	Salt dilution
	November 26	-. <sup>b</sup>	2.24	Velocity-area with Flowtracker

(continued)

**Table 2.2-2. Summary of Manual Flow Measurements (completed)**

Station	Date	Stage (m) <sup>a</sup>	Flow (m <sup>3</sup> /s)	Measurement Technique
SCTR-1	January 30	- <sup>b</sup>	0.005	Velocity-area with Flowtracker
	March 11	- <sup>b</sup>	0.003	Velocity-area with Flowtracker
	April 24	0.080	0.028	Velocity-area with Swoffer
	May 24	0.328	0.440	Velocity-area with Swoffer
	July 20	0.165	0.116	Salt dilution
	September 23	0.134	0.052	Salt dilution
	November 27	0.129 <sup>c</sup>	0.029	Velocity-area with Flowtracker
SCTR-2	February 3	- <sup>b</sup>	0.090	Velocity-area with Flowtracker
	March 11	- <sup>b</sup>	0.104	Velocity-area with Flowtracker
	April 24	0.244	0.254	Velocity-area with Swoffer
	May 25	0.520	5.260 <sup>d</sup>	Velocity-area with Swoffer/Salt dilution
	July 20	0.616	6.834	Salt dilution
	September 23	0.384	2.974	Salt dilution
	November 26	0.26	0.427	Velocity-area with Flowtracker
SCTR-3	April 28	- <sup>b</sup>	0.017	Velocity-area with Swoffer
	July 18	0.42	0.779	Salt dilution
	September 23	0.20	0.350	Salt dilution
	November 27	0.03	0.020	Velocity-area with Swoffer
SK-1	March 12	- <sup>b</sup>	0.014	Velocity-area with Flowtracker
	April 25	- <sup>b</sup>	0.046	Velocity-area with Swoffer
	May 24	0.280	0.936	Velocity-area with Swoffer
	July 20	0.208	0.549	Salt dilution
	November 25	0.014	0.145	Velocity-area with Flowtracker
SK-2	March 12	- <sup>b</sup>	0.037	Velocity-area with Flowtracker
	April 24	0.055	0.224	Velocity-area with Swoffer
	May 24	0.340	1.454	Velocity-area with Swoffer
	July 20	0.250	1.024	Salt dilution
	September 27	-	0.293	Velocity-area with Swoffer
	November 26	- <sup>b</sup>	0.423	Velocity-area with Flowtracker
MESS-1	February 3	- <sup>b</sup>	1.305	Velocity-area with Flowtracker
	April 24	- <sup>b</sup>	1.15	Velocity-area with Swoffer
	May 24	0.29	15.2	Velocity-area with Swoffer
	September 24	- <sup>b</sup>	5.21	Velocity-area with Swoffer
	November 25	- <sup>b</sup>	5.82	Velocity-area with Flowtracker

<sup>a</sup> Referenced to pressure transducer

<sup>b</sup> Station not active or water level below level of pressure transducer

<sup>c</sup> Water level influenced by backwater effects from ice encroachment into the channel

<sup>d</sup> Site conditions allowed two measurement methods, the flows given by each method were averaged to provide best estimate of flow

### 2.2.3 Stage-Discharge Rating Curves

Manual flow measurements obtained during 2008 were used to extend the data sets used to generate stage-discharge rating curves (rating curves) for each station. Rating curves are used to convert water level (stage) data recorded by the automated hydrometric stations into a continuous stream flow time-series. The quality of a rating curve depends on the number and accuracy of the individual data

points used to generate the curve. Flow measurements at the higher end of the flow range are especially important as they aid in confining the high end of the rating curve. This is significant as generating the streamflow time series often requires extrapolation beyond the range of the observed data used to generate the rating curve. Also, the rating relationship can change from low flow periods to high flow periods, depending on channel geometry.

Rating equations often take the form:

$$Q = c(h-a)^b$$

Where  $Q$  is the discharge ( $m^3/s$ ),  $h$  is the stage (m),  $c$  and  $b$  are constants obtained from a linear regression of the logarithms of concurrently measured stage and discharge, and  $a$  (m) is a zero-flow offset value. In the field, the zero-flow offset ( $a$ ) can be determined by locating the deepest point in the channel either at the station for free flowing reaches or at a downstream low flow control feature.

Rating curves for each station are provided in Appendix A2 and are summarized in Table 2.2-3. For six of the eight hydrometric stations monitored in 2008, manual flow measurements plotted near the established rating curve, and it was assumed that substantial channel changes had not occurred between years. For these stations, the 2008 data was combined to previous years' data to create a larger, updated, data set that covered a wider range of flow conditions.

**Table 2.2-3. Summary Statistics of 2008 Stage-Discharge Rating Curves**

Station	Number of Flow Measurements	Equation	$r^2$
HC-1	15	$Q = 12.35(h + 0.24)^{3.73}$	0.86
SC-2	12	$Q = 9.13(h + 1.00)^{1.83}$	0.97
SCTR-1	14	$Q = 6.85(h + 0.14)^{2.97}$	0.97
SCTR-2	8	$Q = 11.16(h + 0.25)^{4.16}$	0.95
SCTR-3			
H<0.6 m	8	$Q = 4.61(h + 0.15)^{2.81}$	0.95
H>0.6 m	5	$Q = 8.01(h + 0.15)^{3.74}$	0.96
SK-1	13	$Q = 7.12(h + 0.18)^{2.29}$	0.87
SK-2	10	$Q = 4.09(h + 0.40)^{4.09}$	0.97
MESS-1	Manning's equation	$Q = 18.88(h + 0.55)^{2.50}$	1.00

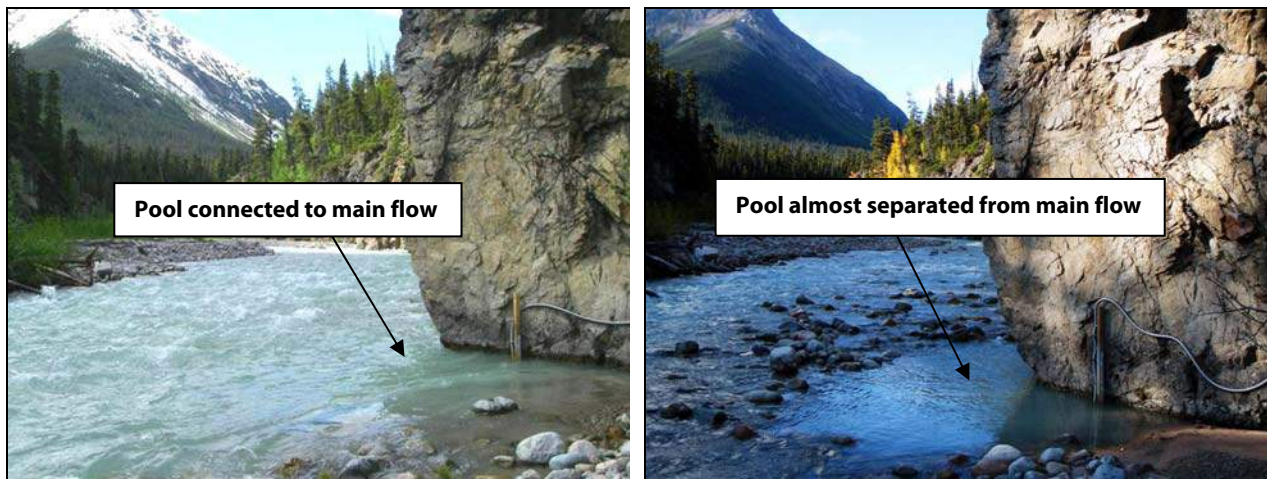
At SC-2, the zero-flow offset value was updated in the established rating curves at the site following a cross sectional survey at the monitoring location. This provided a more accurate measurement of the point of zero flow ( $a$ ). During previous years, water levels had been too high to safely conduct such a survey or the channel and banks had been covered in substantial snow and ice.

For MESS-1, due to the fact that reliable flow measurements were only obtained during low flow conditions the rating curve was developed using Manning's equation with surveyed cross section and water slope data from 2007. The Manning's roughness coefficient for the equation was calibrated using the observed manual flow measurement data available at the time, which were all less than  $7 m^3/s$ . In 2008, a reliable higher flow measurement was obtained ( $15.2 m^3/s$ ) that allowed additional calibration of the roughness coefficient over a wider range of flows.



At SCTR-3, two rating curves were required to appropriately represent the stage-discharge relationship at the station under high and low flows. This was due to a substantial increase in channel width for depths greater than 0.6 m that resulted in flows increasing at a greater rate relative to stream stage than at lower flow levels.

The pressure transducer at SCTR-2 is installed in a relatively deep area along the left bank of the monitoring reach. At moderate and higher flows, water level at the station is fully connected to the main flow in the channel (Plate 2.2-1a), and the stage may be related to the discharge. However at lower flows (i.e. when the stage level is less than approximately 0.30 m), the pressure transducer is located within a pool that becomes disconnected from the main flow (Plate 2.2-1b). Under such conditions, the stage does not necessarily reflect the corresponding flow in the main channel. Therefore, of three flow measurements that were taken at low stage (i.e., ranging from 0.290 m to 0.293 m), only the two measurements with the greatest associated flow were retained for plotting on the rating curve. The stage measurement having the smallest discharge value was rejected, on the basis that the pooling effect had clearly occurred, and that the stage could not properly be related to discharge under such conditions.



a. June 2007 – higher flow conditions

b. September 2008 – lower flow conditions

Plate 2.2-1. Comparison of higher and lower flow conditions at SCTR-2.

#### 2.2.4 Water Level Data

The majority of the automated stations collected good quality water level data throughout the monitoring period. However, minor issues did arise at some stations.

Following installation in late April, the monitoring equipment at SK-1 began to malfunction and only recorded useable data on an intermittent basis until it was replaced during a site visit in late May.

At many of the monitoring stations, water levels were affected by ice encroachment into the channel beginning in early to mid November. Ice build-up and encroachment causes water levels to rise in response to decreased cross section and increased roughness rather than to increased stream flow. For stations that were affected by this process, water level data that were obviously impacted by ice effects were not used in any analyses. However, the onset of this process was not obvious at all stations; therefore runoff and flows through November should be viewed with caution. This is particularly the case for MESS-1 where a number of runoff events were recorded in November that

could be attributed to rainfall events but were likely enhanced within the water level record due to ice effects. Although HC-1 was operated throughout the winter of 2007/2008, water levels were impacted by ice effects throughout the winter until late April. Water level data prior to April 24 were not used in any analyses.

2.2.4.1 Pressure Transducer Elevation Correction

At each monitoring station, recorded water levels were referenced to the location of each pressure transducer during the first year of monitoring (i.e., 2006 or 2007 depending on the station). During subsequent monitoring years (i.e., 2007 and/or 2008), pressure transducers were not necessarily re-installed at the exact same elevation; although the intent was to re-install the sensors as close to the initial height as possible. Thus, in order to use rating curves over multiple years, the recorded water levels for later years were adjusted to the original location of pressure transducers (Table 2.2-4). The change in position of the pressure transducers from one year to the next was obtained via surveying to fixed benchmarks or comparative staff gauge readings.

**Table 2.2-4. Annual Pressure Transducer Data Corrections**

Station	Adjustment (m)		
	2006	2007	2008
HC-1	_ a	_ b	-0.008
SC-2	_ a	0.000	-0.512
SCTR-1	_ a	-0.043	-0.065
SCTR-2	_ c	_ a	-0.046
SCTR-3	_ c	_ a	-0.016
SK-1	_ a	-0.024	-0.033
SK-2	_ a	_ b	0.018
Mess-1	_ a	0.000	0.034

<sup>a</sup> First year of monitoring, no adjustment required

<sup>b</sup> New rating curve used, no adjustment required

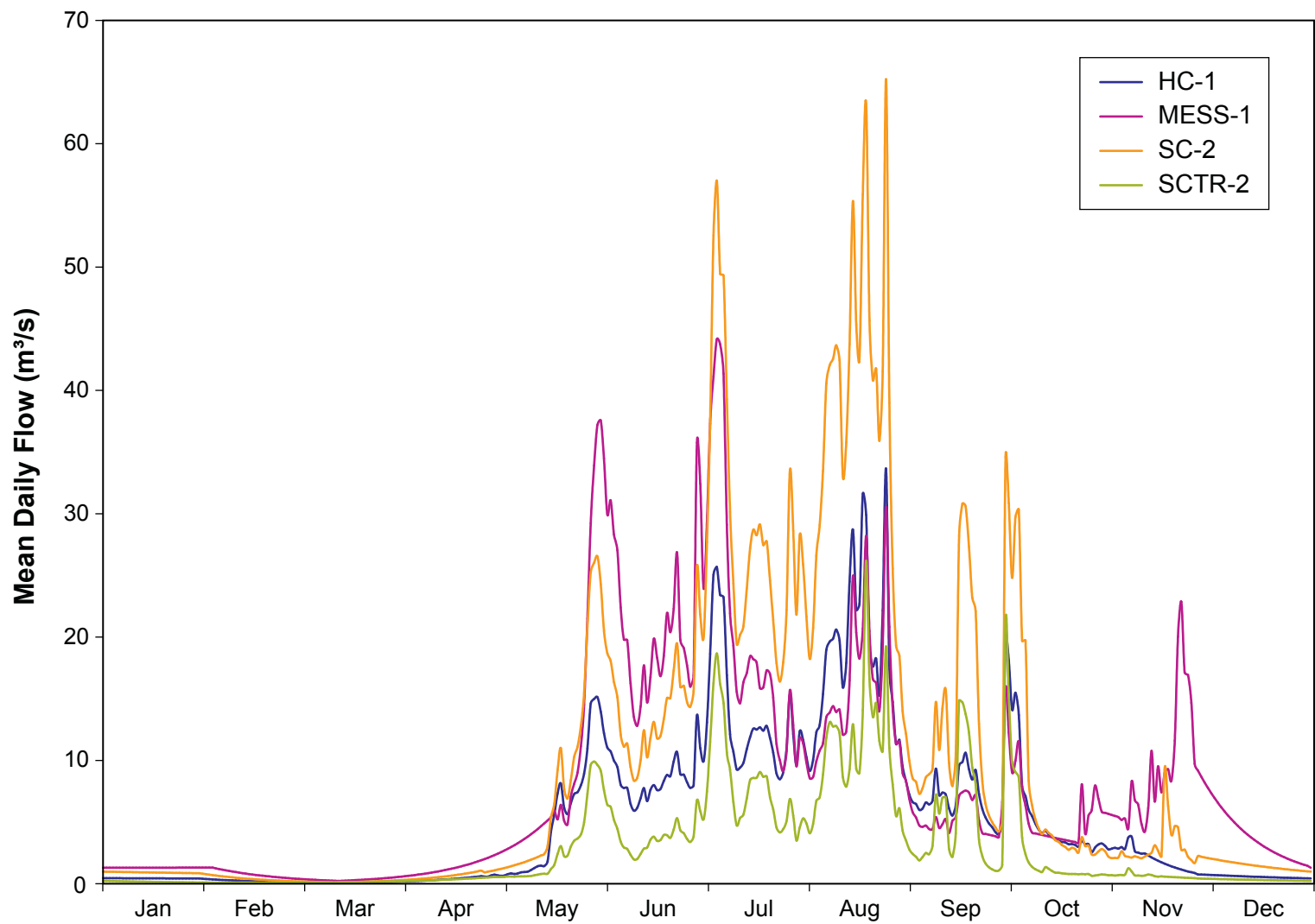
<sup>c</sup> Station not installed until following year

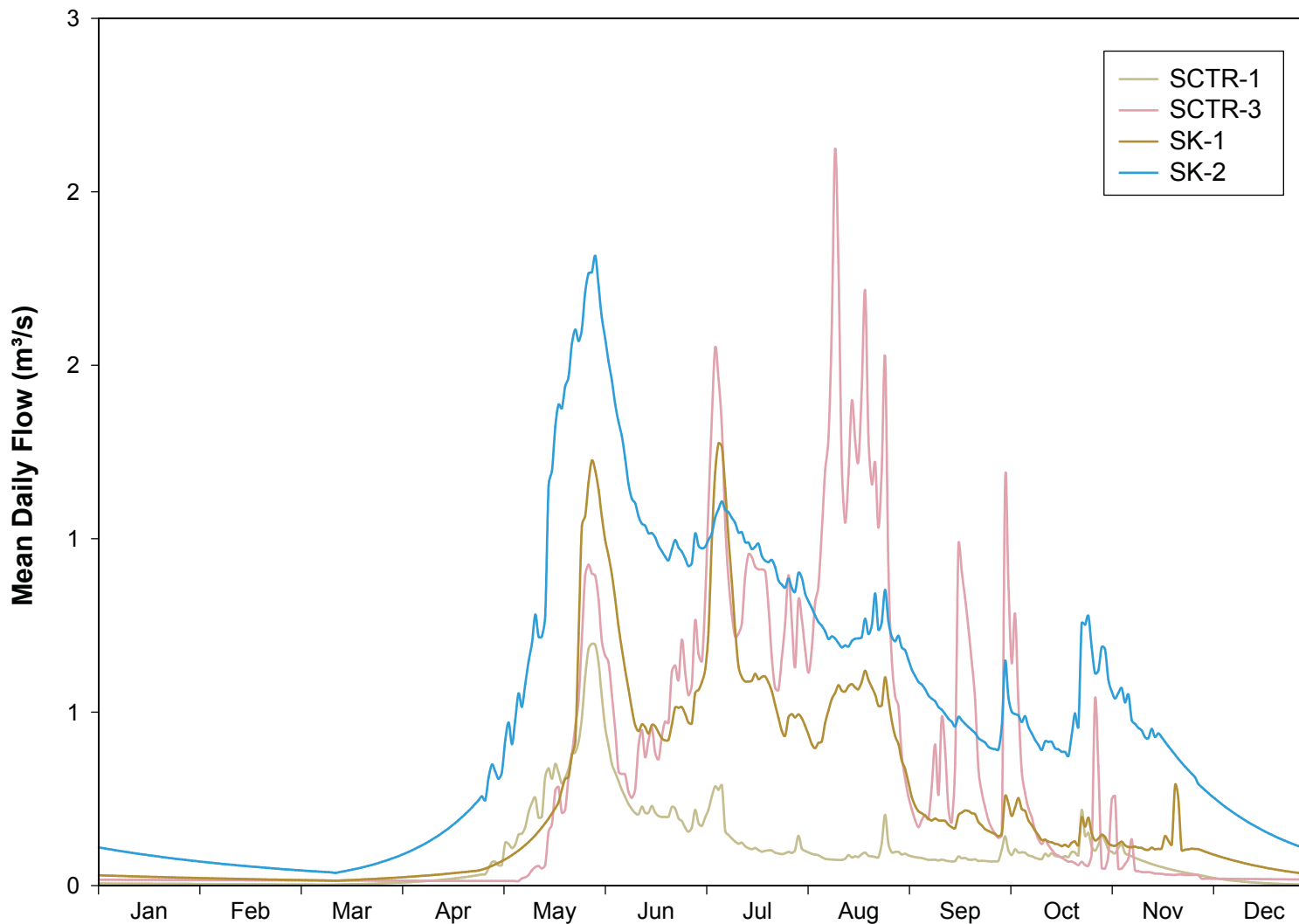
2.2.5 Hydrographs

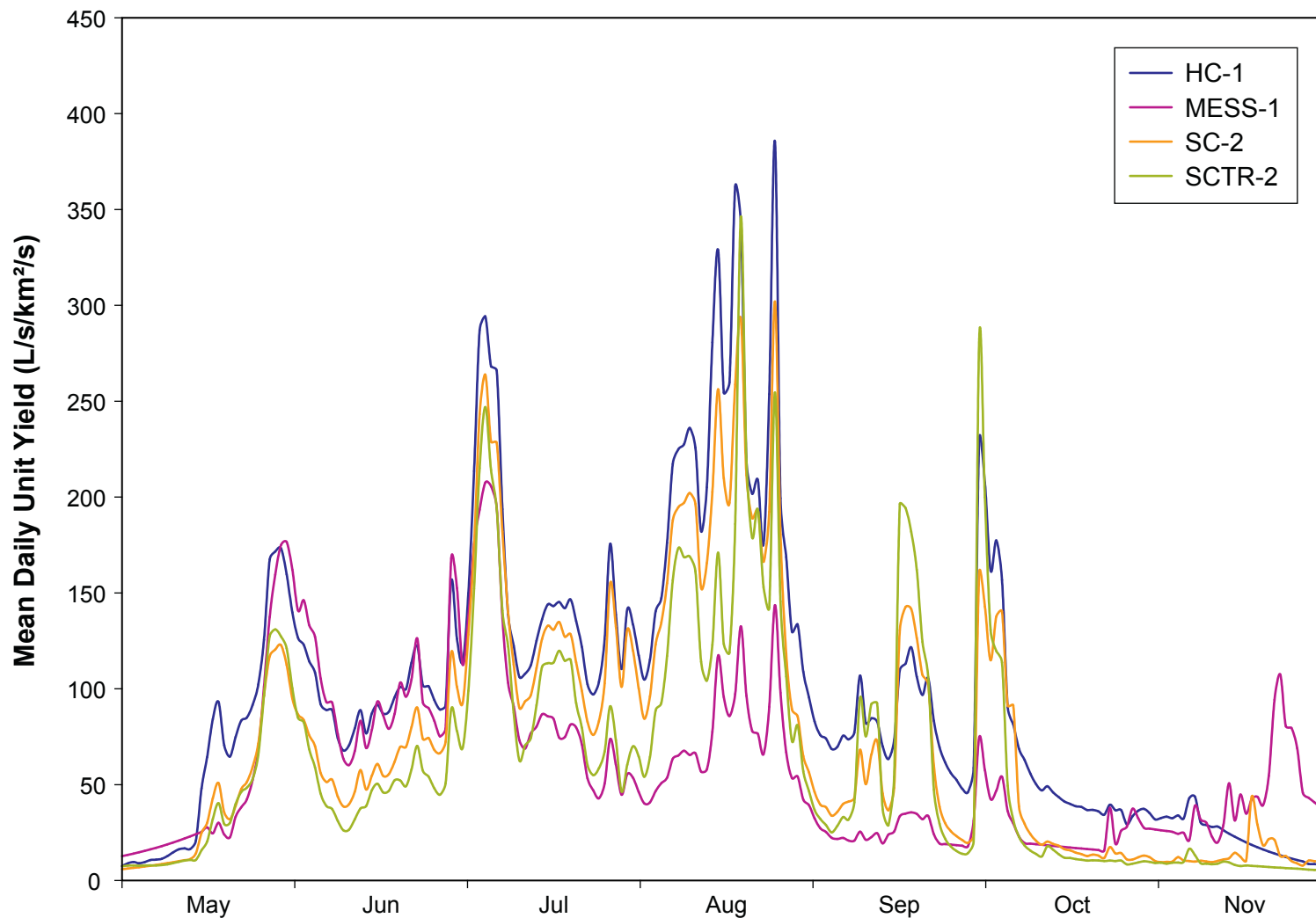
Hydrographs were generated for all eight monitoring locations. These are individually presented in Appendix A3 in graphical and tabular formats. As discussed in the previous section, for the operational period of each station, flows were calculated by applying the rating curves presented in Appendix A2 to the recorded stage data.

During the winter when the automated stations were inactive, or when ice encroachment into the channel affected the stage-discharge relationship at the station, flows were estimated between site visits (when manual flow measurements were conducted), by assuming logarithmic decay or growth.

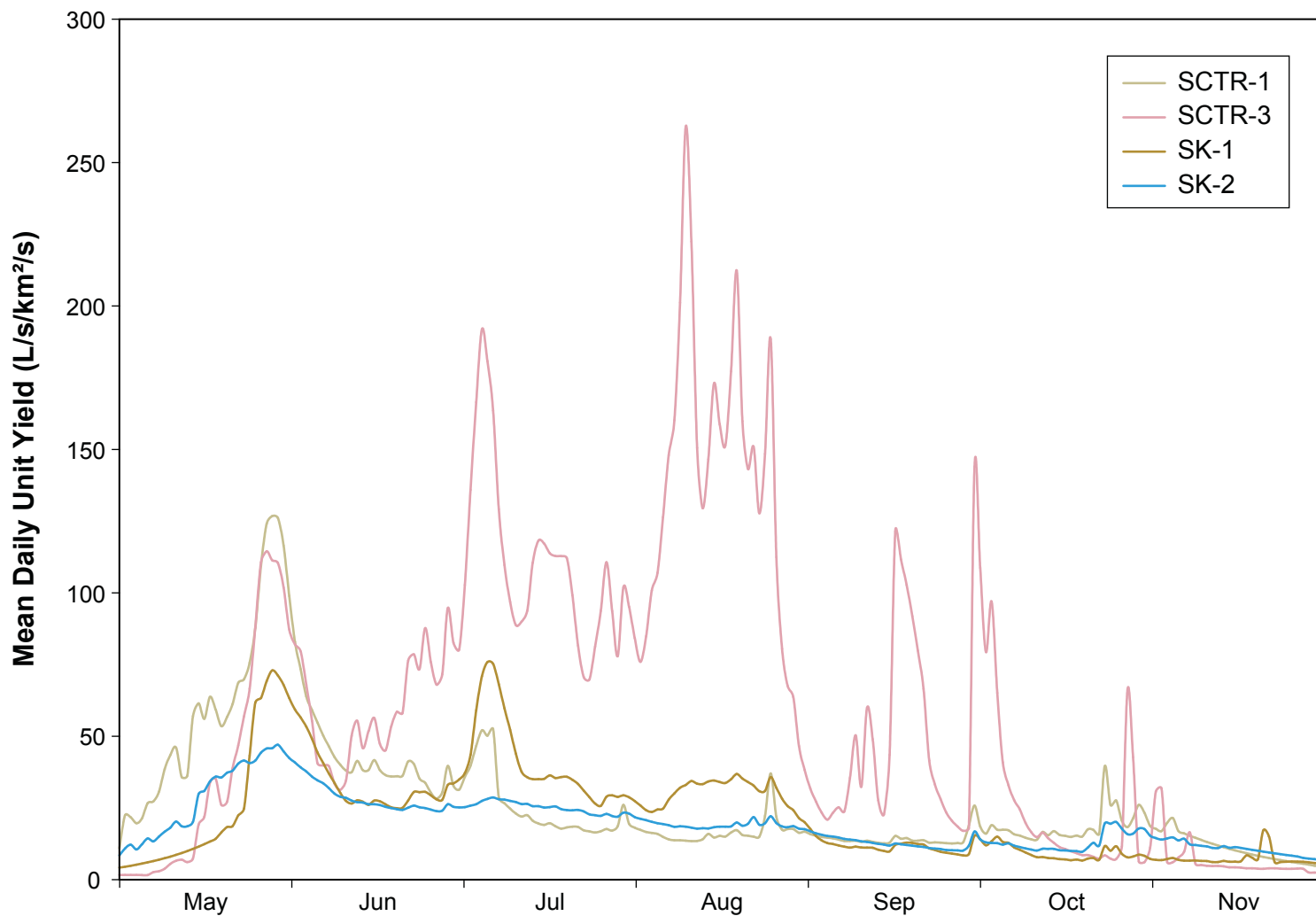
Hydrographs for all gauged watersheds are presented as mean daily flow (m<sup>3</sup>/s) in Figure 2.2-2 and Figure 2.2-3 for larger and small watersheds, respectively. Hydrographs for larger and small gauged watersheds are presented as mean daily unit yield (L/s/km<sup>2</sup>) for the open-water season (April through November) in Figure 2.2-4 and Figure 2.2-5, respectively. Unit yield is a measure of flow normalized to watershed area that allows direct comparison of the hydrological response of watersheds with varying watershed areas.







**2008 Open-Water Season Unit Yield Flow Hydrographs:  
Larger Watersheds**



**2008 Open-Water Season Unit Yield Flow Hydrographs:  
Small Watersheds**

The onset of the spring freshet occurred in early to mid-May and the winter low flow period had effectively begun by early December across the Project area. The hydrological response of larger gauged watersheds (watershed area >45 km<sup>2</sup>) varied from that of the smaller gauged watersheds (watershed area <45 km<sup>2</sup>) throughout much of the open water season.

Larger watersheds include HC-1, SC-2, SCTR-2, and MESS-1. For these watersheds, an initial peak flow event occurred around May 15 due to snowmelt runoff. Flows remained high through June and July, with additional peak events occurring on or around May 30, July 4, and from August 14 to August 24. The August 24 peak was the largest flow event of the year. This flow was a result of steady rainfall combined with melt of residual snowpack at high elevations and glacier melt. In late August, flows steadily decreased across the Project area. Rainfall runoff resulted from a number of rainfall events, especially around late September and early October. The winter low flow period had begun by early December.

Smaller watersheds include SCTR-1, SCTR-3, SK-1, and SK-2. The annual hydrological response from SCTR-3 was similar to that of the larger watersheds, while SCTR-1, SK-1, and SK-2, experienced their largest flow event of the year during an early snowmelt event in late May. These catchments have lower median elevations with broader valley bottoms that include substantial lake and wetland complexes. As a result, the snowpack within these watersheds will tend to melt earlier in the year and over a shorter period of time. Additionally, storage in the lake and wetland complexes is greater later in the summer than early in the freshet. Therefore, the runoff response to the two weeks of rainfall in August was smaller for these smaller watersheds compared to that for SCTR-3 and the larger watersheds.

### **2.2.6 Hydrological Indices**

The calculated flows for each hydrometric station can be used to produce a number of important hydrological indices including annual runoff, seasonal runoff distribution, peak flows, and low flows.

#### *2.2.6.1 Annual Runoff*

Annual runoff (Table 2.2-5) and mean annual flow represent the total hydrologic response of a watershed to driving factors such as precipitation and air temperature. In general annual runoff in 2008 was lower than in 2006 and 2007. For all but one station (Hickman Creek, HC-1), 2008 was the lowest recorded during the baseline monitoring program. This was likely due to the low snowpack in the Project area observed in early 2008 (Table 2.2-6). Similar to the annual 2008 runoff, the 2008 snowpack was the lowest recorded during the baseline monitoring program (RTEC, 2008 and 2009).

The greatest inter-annual variation in runoff was observed from the Skeeter Lake (SK-2), Start Lake (SK-1), and a small tributary of Schaft Creek (SCTR-1) which drains an area along the southern edge of the proposed pit. Relative to the other gauged watersheds, these three watersheds have little to no headwater glaciers and are dominated by nival processes. Consequently, the inter-annual variation in annual snowpack has a strong influence on the annual runoff. During years with relatively low snowpack, runoff from headwater glaciers can compensate for lower snowmelt runoff, which likely contributed to the relatively smaller inter-annual variation observed from the Hickman Creek (HC-1), Schaft Creek (SC-2), two western tributaries of Schaft Creek (SCTR-2, SCTR-3), and Mess Creek (MESS-1) watersheds.

**Table 2.2-5. Annual Runoff and Mean Annual Flow**

Station	2006 <sup>a</sup>		2007		2008	
	Annual Runoff (mm)	Mean Annual Flow (m <sup>3</sup> /s)	Annual Runoff (mm)	Mean Annual Flow (m <sup>3</sup> /s)	Annual Runoff (mm)	Mean Annual Flow (m <sup>3</sup> /s)
HC-1	1,690	4.67	1,890	5.24	1,870	5.19
SC-2	1,520	10.4	1,630	11.2	1,430	9.77
SCTR-1	1,270	0.22	1,960	0.34	520	0.09
SCTR-2	n/a	n/a	1,880	4.51	1,201	2.88
SCTR-3	n/a	n/a	1,630	0.42	1,140	0.29
SK-1	870	0.47	1,080	0.57	440	0.23
SK-2	640	0.78	920	1.12	400	0.49
MESS-1	1,160	7.79	1,760	11.9	1,170	7.92

n/a = not available, station not active.

<sup>a</sup> 2006 values differ from annual runoff values presented in the 2006 baseline report (RTEC, 2007), as estimates are based on the 2007 monthly distribution for the same catchment rather than the regional distribution originally done.

**Table 2.2-6. Maximum Annual On-Site Snow Water Equivalent**

Snow Survey Site	Elevation (masl)	Maximum Snow Water Equivalent (mm)		
		2006	2007	2008
Skeeter Lake Valley (SSCW1)	904	295	676	283
Schaft Camp High Elevation (SSCW2)	862	593	1071	518

For additional information on Schaft Creek snow survey data see Schaft Creek Project: 2007 Meteorology Baseline Report (RTEC, 2008) and Schaft Creek Project: 2008 and 2009 Meteorology and Air Quality Baseline (RTEC, 2009)

For all three years of monitoring, runoff from the Skeeter Lake (SK-2) and Start Lake (SK-1) valleys was substantially lower than runoff from the majority of the other gauged catchments.

Due to the orographic nature of storms in the region, annual runoff has been found to relate to a watershed's median elevation (Obedkoff, 2001). The relationship between annual runoff and median elevation for gauged catchments in the Schaft Creek Project area is shown in Figure 2.2-6. The on-site data is also compared to mean annual runoff from regional Water Survey of Canada (WSC) records and to data available for the Galore Creek watershed (Rescan, 2005), which is located just west of the Schaft Creek watershed. Regional data presented includes stations that fall within the B.C. hydrologic sub-zone 'S' as defined by Obedkoff, 2001 which includes the Schaft Creek area (Figure 2.2-7).

The Schaft Creek data follows a similar trend to the regional data. Most of the on-site data from 2006, 2007, and 2008 plots below the regional mean annual runoff as well as the Galore Creek data from 2005. Based on data from WSC stations Iskut below Johnson (ID 08CG001), Nass (ID 08DB001), and Kispiox (ID 08EB004), 2006 was in general a drier than average year, 2007 was a wetter than average year, and 2008 was again drier than average (Table 2.2-7). It should be noted that the Iskut below Johnson (ID 08CG001) station, the closest active WSC station to Schaft Creek within hydrologic sub-zone 'S', experienced a similar trend in runoff from 2006 to 2008 as the Schaft Creek watersheds, with 2008 having the lowest annual runoff and 2007 having the highest.



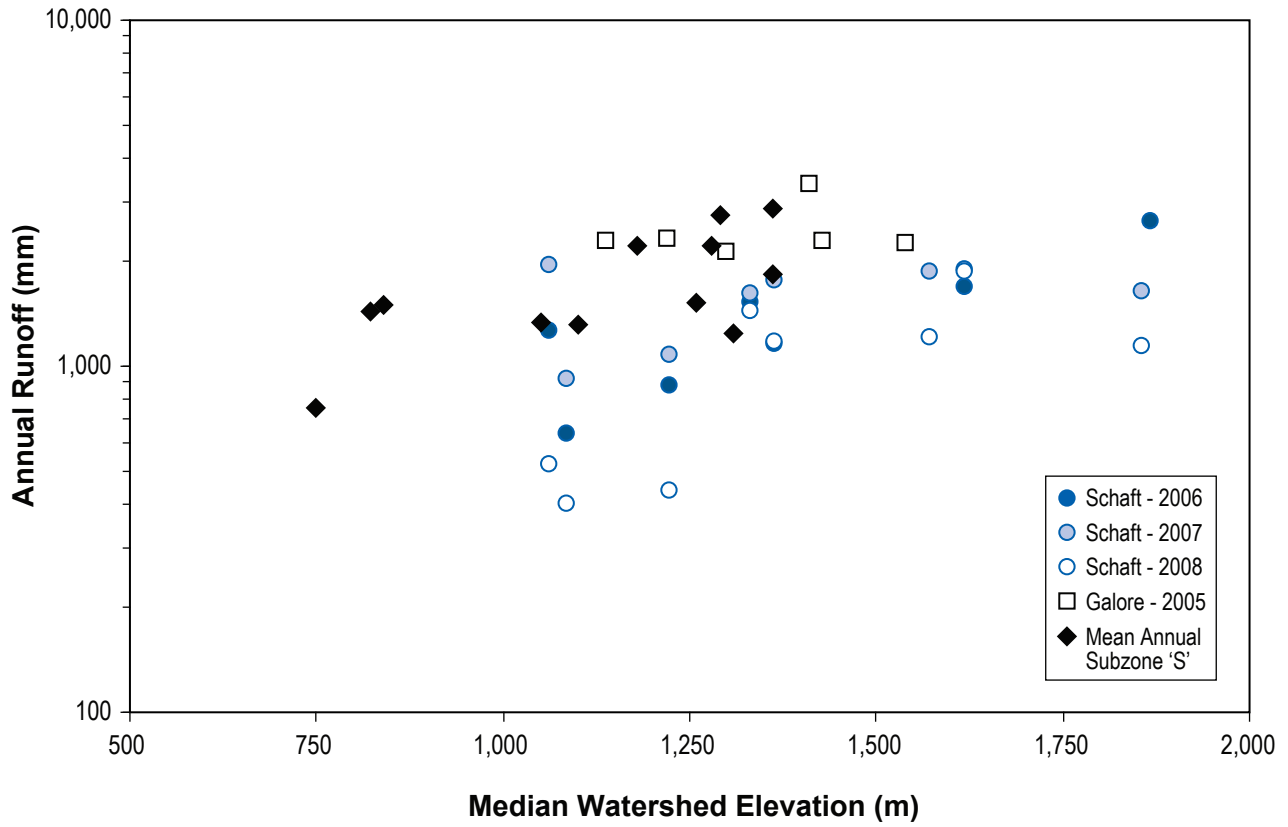
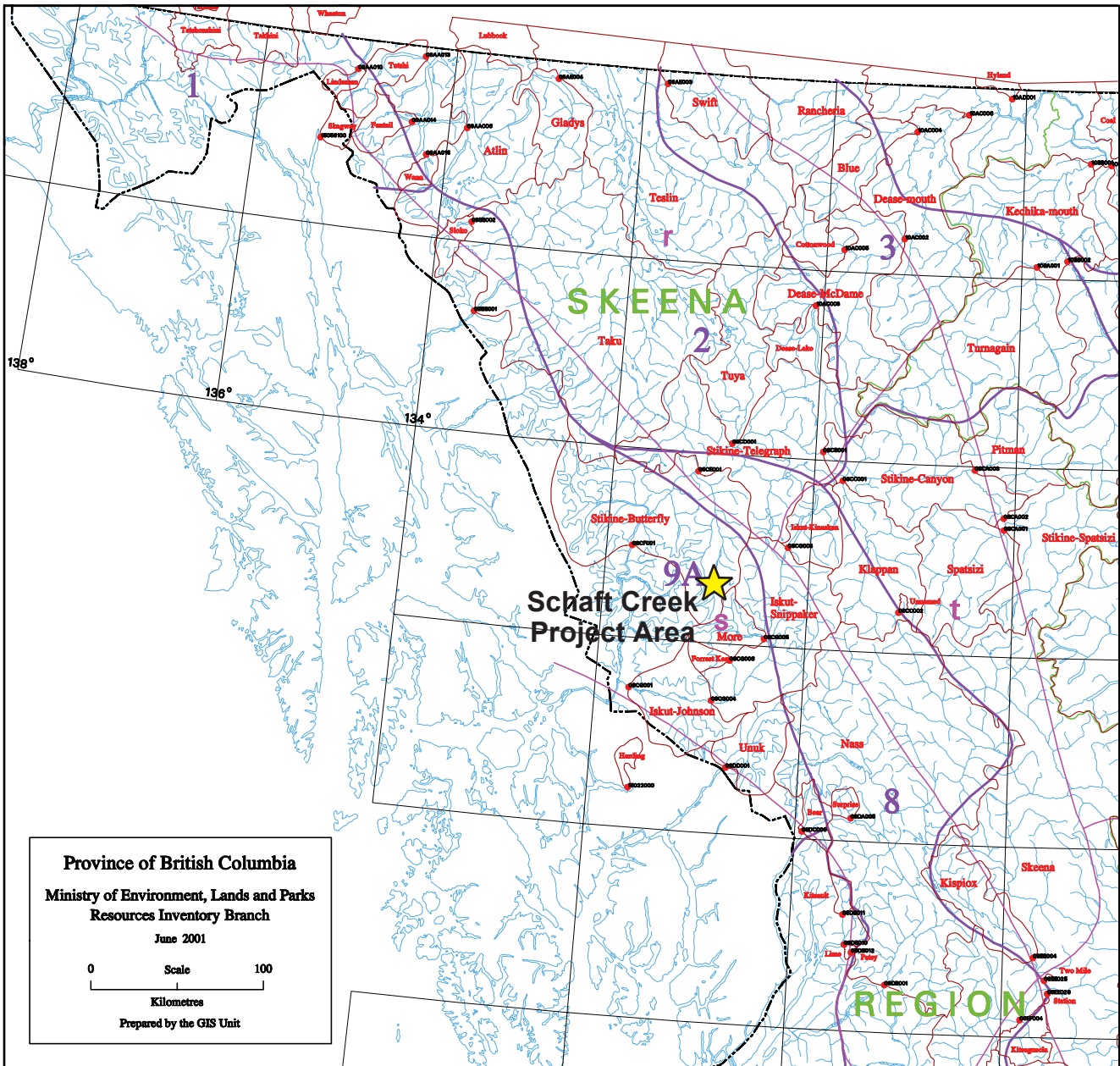


FIGURE 2.2-6





Source: Obedkoff, 2001

**STREAMFLOW IN THE SKEENA REGION**

**BOUNDARY LEGEND**

- Hydrologic Subzone ————
- Hydrologic Zone ————
- Gauged Watershed ————
- Ministry Region ————
- Hydrometric Station ● 0887001

FIGURE 2.2-7



# Hydrologic Zones and Sub-Zones for the Skeena Region

**Table 2.2-7. 2006 to 2008 Runoff from Regional Gauged Watersheds**

Station	WSC ID	Mean Annual <sup>a</sup>	Annual Runoff (mm)		
			2006	2007	2008
Iskut below Johnson	08CG001	1,580	1,550	1,760	1,410
Nass River above Shumal Creek	08DB001	1,300	1,180	1,600	1,310
Kispiox River near Hazelton	08EB004	760	590	950	750

<sup>a</sup> Based on a normal distribution

**2.2.6.2 Seasonal Runoff Distribution**

In 2008, distinct patterns were evident in the seasonal distribution of runoff between the gauged watersheds in the Project area (Table 2.2-8 and Figure 2.2-8). The lower elevation, less glacierized watersheds that are dominated by snowmelt processes (SCTR-1, SK-1, and SK-2) showed peak monthly runoff occurring in June, with runoff declining relatively quickly after July. For the higher elevation, glacierized watersheds (HC-1, SC-2, SCTR-2, and SCTR-3), runoff increased more slowly through May and June and peaked in July, with runoff being sustained at relatively higher levels through August and September. The seasonal distribution of runoff in Mess Creek (MESS-1) was intermediate between the nival pattern of SCTR-1, SK-1, and SK-2 and the glacio-nival pattern of HC-1, SC-2, SCTR-2, and SCTR-3. This is consistent with the pattern of annual hydrographs as discussed in Section 2.2.5.

**Table 2.2-8. 2008 Seasonal Runoff Distribution**

Station	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov <sup>a</sup>	Dec
HC-1	mm	13	6	3	12	159	258	410	555	218	166	56	17
	%	1	<1	<1	1	8	14	22	30	12	9	3	1
SC-2	mm	11	5	2	8	102	174	360	454	160	98	34	18
	%	1	<1	<1	1	7	12	25	32	11	7	2	1
SCTR-1	mm	3	2	2	11	153	116	68	45	37	50	28	5
	%	1	<1	<1	2	29	22	13	9	7	10	5	1
SCTR-2	mm	6	3	5	14	101	141	277	354	184	83	23	11
	%	<1	<1	<1	1	8	12	23	29	15	7	1	1
SCTR-3	mm	5	5	5	4	92	157	294	363	122	70	17	6
	%	<1	<1	<1	<1	8	14	26	32	11	6	2	1
SK-1	mm	4	3	3	6	61	89	110	81	30	25	19	9
	%	1	1	1	1	14	20	25	18	7	6	4	2
SK-2	mm	6	4	4	12	74	75	67	51	33	35	27	12
	%	2	1	2	3	18	19	17	13	8	9	7	3
MESS-1	mm	16	9	4	16	121	261	257	193	69	70	112	45
	%	1	1	<1	1	10	22	22	16	6	6	10	4

<sup>a</sup> November monthly runoff values should be viewed with caution as most monitoring stations were impacted to some degree by ice effects which likely resulted in overestimated flows. Flows at MESS-1 were likely impacted to the greatest degree.

**2.2.6.3 Peak and Low Flows**

In 2008, the annual peak flow events (Table 2.2-9) observed from the higher elevation glacierized watersheds occurred in mid August (August 18 for SCTR-2; August 24 for HC-1, SC-2, and SCTR-3). These events resulted from rainfall runoff that occurred during a period of warm air temperatures that would have provided substantial glacial melt. The annual peak flow event observed from the lower elevation watersheds of SCTR-1 and SK-2 was an early freshet snowmelt event in late May (May 27 to May 29). Although this event also produced substantial flow at MESS-1 and SK-1, the annual peaks occurred during a later snowmelt event in early July (July 5 and 6). The greatest yields were observed from the higher elevation and highly glacierized catchments of HC-1, SCTR-2, and SCTR-3.

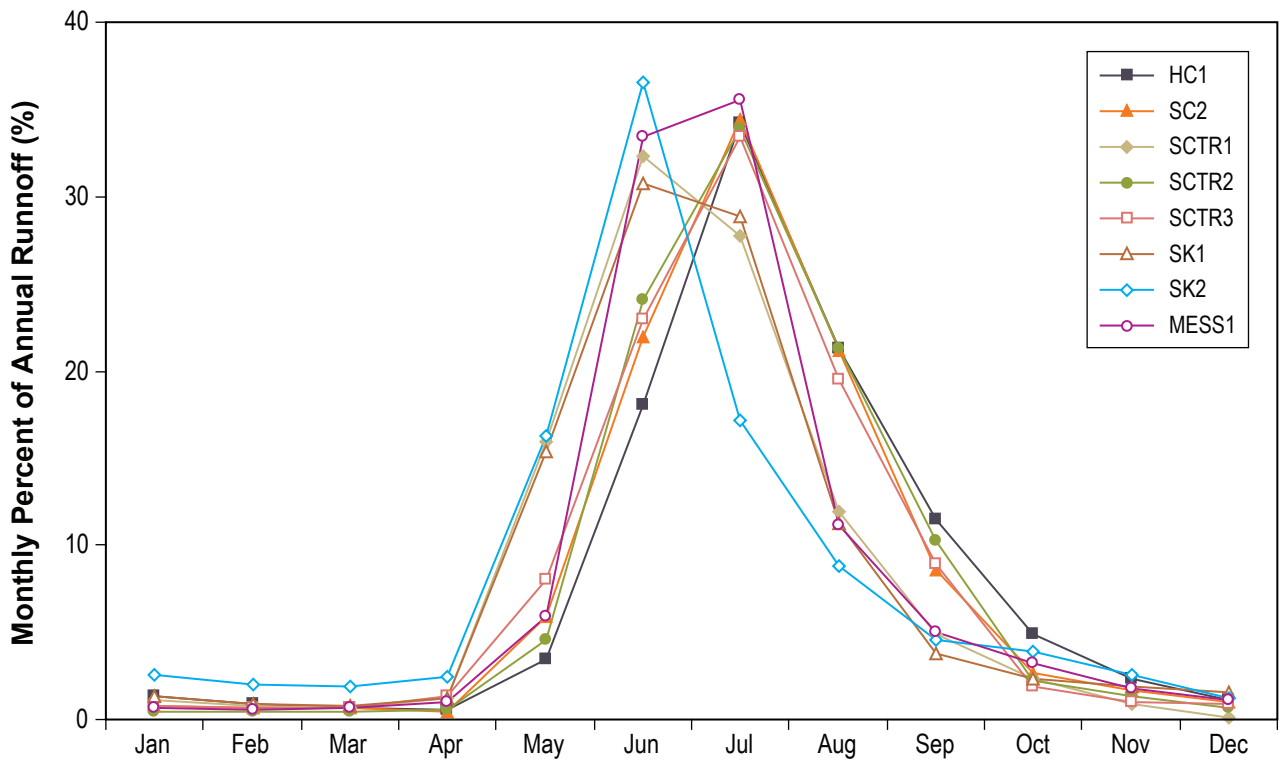


FIGURE 2.2-8



**Table 2.2-9. Annual Instantaneous Peak Flows**

Station	Instantaneous Peak Flow (m <sup>3</sup> /s)			Instantaneous Peak Yield (L/s/km <sup>2</sup> )		
	2006	2007	2008	2006	2007	2008
HC-1	70.8	68.2	43.3	811	781	496
SC-2	86.5	102	71.3	400	474	330
SCTR-1	2.1	2.8	0.78	374	503	142
SCTR-2	n/a	46.0	28.2	n/a	608	374
SCTR-3	n/a	5.1	3.18	n/a	636	393
SK-1	2.4	3.5	1.38	144	206	82
SK-2	7.2 <sup>a</sup>	13.2	2.24	186	342	58
MESS-1	74.1	120	55.7	348	564	262

<sup>a</sup> Flow recorded on first operational day of the station and may not represent the annual peak flow for the year.

Annual peak flows were lower in 2008 than in 2006 or 2007. Peak flows were substantially lower than previous years for the lower elevation, snowmelt driven watersheds (SK-1, SK-2, SCTR-1), where 2008 peak flows were from 60% to 80% lower than in 2007. It should be noted that 2007 produced the flood of record for many rivers in Northwest BC.

For a region with relatively homogenous hydrological characteristics, such as BC hydrologic sub-zone 'S', annual peak flows in BC have been related to watershed area (Coulson and Obedkoff 1998, Church 1997, Obedkoff 2001, Eaton et al. 2002). The relationship between the Q<sub>2</sub> and watershed area within sub-zone 'S' is presented in Figure 2.2-9 along with on-site data and available data from the Galore Creek watershed (Rescan, 2006). The Schaft Creek data follows a similar trend to the regional data. Most of the on-site data from 2006, 2007, and 2008 plot below the regional Q<sub>2</sub> data as well as peak flow data available from Galore Creek.

Annual low flows across the Project area occurred during the winter when the majority of available water was stored within the snowpack and were generally lower than those observed during the 2006/2007 winter. June through September low flows were lower for most watersheds in 2008 compared to previous years (Table 2.2-10) except for HC-1 and SC-2. Similar to previous years, the 2008 June through September low flow was recorded in September.

**Table 2.2-10. Annual Low Flows**

Station	June through September (m <sup>3</sup> /s)			Winter (m <sup>3</sup> /s) <sup>a</sup>	
	2006	2007	2008	2006/2007	2007/2008
HC-1	2.97	1.30	4.02	0.35	0.06
SC-2	8.77 <sup>b</sup>	3.84	4.25	0.78	0.86
SCTR-1	0.16	0.20	0.07	0.02	0.03
SCTR-2	n/a	1.44	1.17	0.33	0.09
SCTR-3	n/a	0.27	0.14	n/a	0.17
SK-1	0.28	0.16	0.14	0.04	0.01
SK-2	0.40	0.53	0.39	0.24	0.04
MESS-1	3.82	3.71	3.79	0.79	0.23

n/a = not available, station was not active (SCTR-2, SCTR-3 in 2006)

<sup>a</sup> Based on winter manual flow measurements

<sup>b</sup> Estimated from HC-1

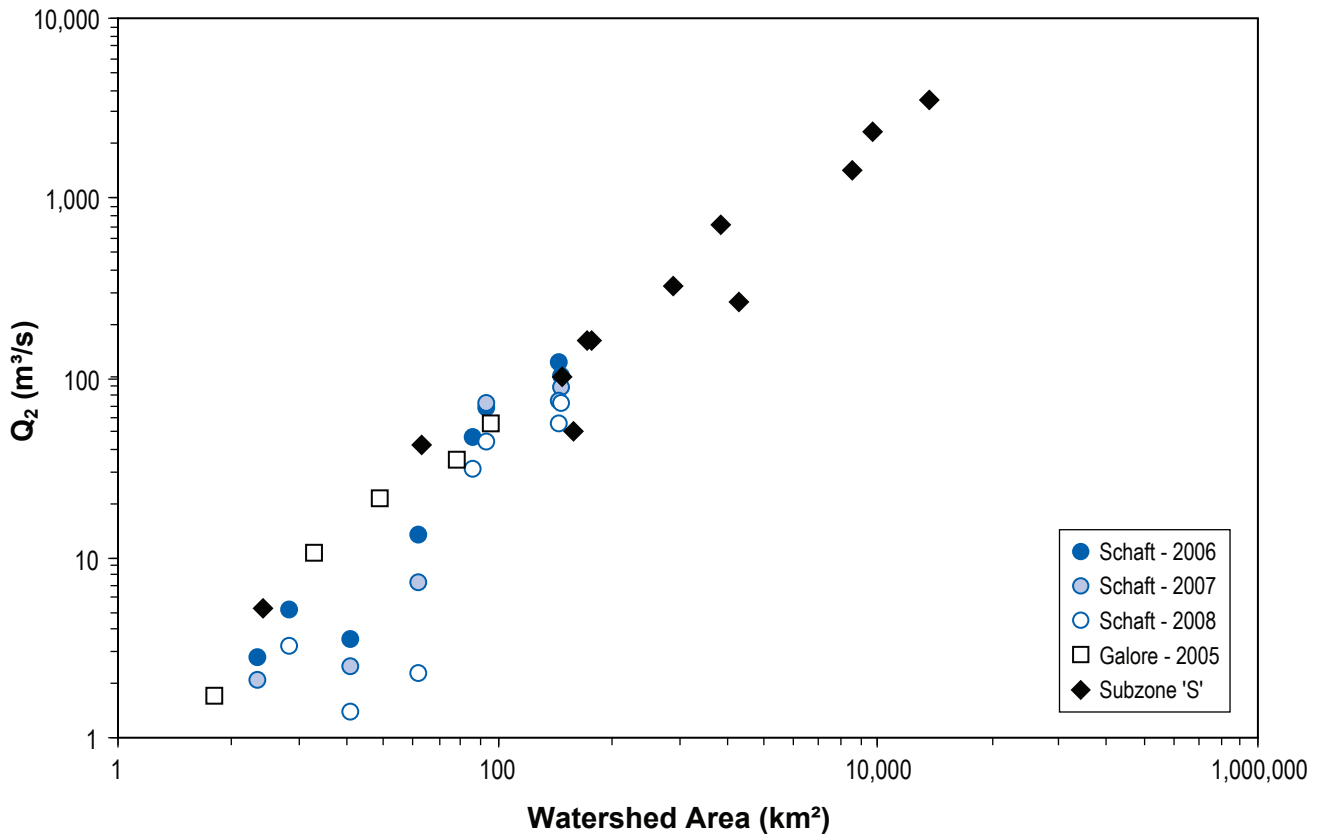


FIGURE 2.2-9



**2.3 BATHYMETRIC SURVEY OF SKEETER AND START LAKES**

Bathymetric surveys were conducted at Skeeter and Start Lakes on September 25 and 26, respectively. Skeeter Lake drains north via Skeeter Creek into Schaft Creek and is monitored by the SK-2 hydrometric station. Start Lake drains south into Mess Creek via the creek monitored by the SK-1 hydrometric station. Data collection was accomplished using a SeaMax depth sounder connected to a Trimble XRS Pro GPS unit with 0.5 m horizontal accuracy.

Lake levels at the time of data collection were surveyed in relation to onshore benchmarks at each site. The terrestrial surveys were conducted using a builder’s level and stadia rod, with an expected accuracy of ±0.005 m. For Start Lake, the benchmark was a nail driven into a tree on the NE shore of the lake at UTM (NAD83, Zone 9) 382,629E; 6,365,348N. The benchmark elevation was set to 100 m and the elevation of the lake water surface relative to this benchmark was 98.43 m. For Skeeter Lake, the benchmark used was a section of rebar that was driven into the soil near a tree on the SW end of the lake at UTM (NAD83, Zone 9) 382,272 E; 6,369,489 N. The elevation of the benchmark was set to 100 m and the elevation of the lake water surface relative to this benchmark was 98.64 m.

For each lake, depth measurements were collected along lateral transects placed approximately 100 m apart. Data were also collected from longitudinal transects down the centre of the lakes and along transects placed perpendicular to the centreline (Appendix A4).

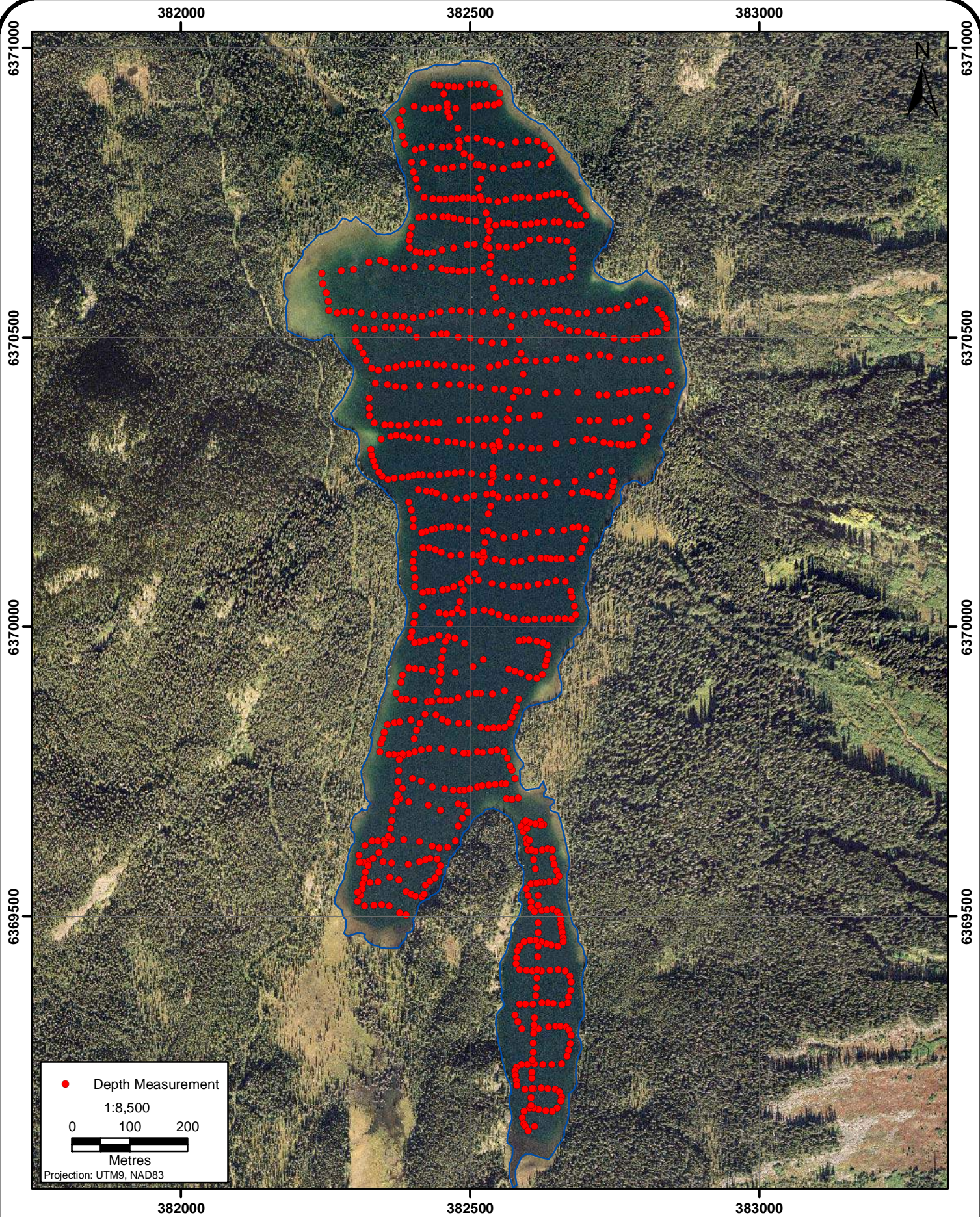
All recorded GPS positions were post-processed using Trimble Pathfinder Office software. Post-processing involved correcting positions using the Pathfinder Differential Correction Utility. The Base station used in the correction is located near Dease Lake at UTM (NAD83, Zone 9) 440,095 E; 6476556 N, approximately 127 km north of the Project. Some positions were omitted due to insufficient satellite reception, errors in base station or GPS unit records, and corrupted data files.

Corrected bathymetric data were imported into the ArcGIS software package. Using the Spatial Analyst extension, the data were entered into a kriging function. The kriging procedure was used to fit a spherical semivariogram model of 50 m search radius to the depth measurements. Depths were interpolated over a grid of 1 m by 1 m cells, producing a map of predicted depths. The variance and error at each cell may be calculated; however, error measurements are specific to each cell and are dependent on the distance to the nearest measured depth.

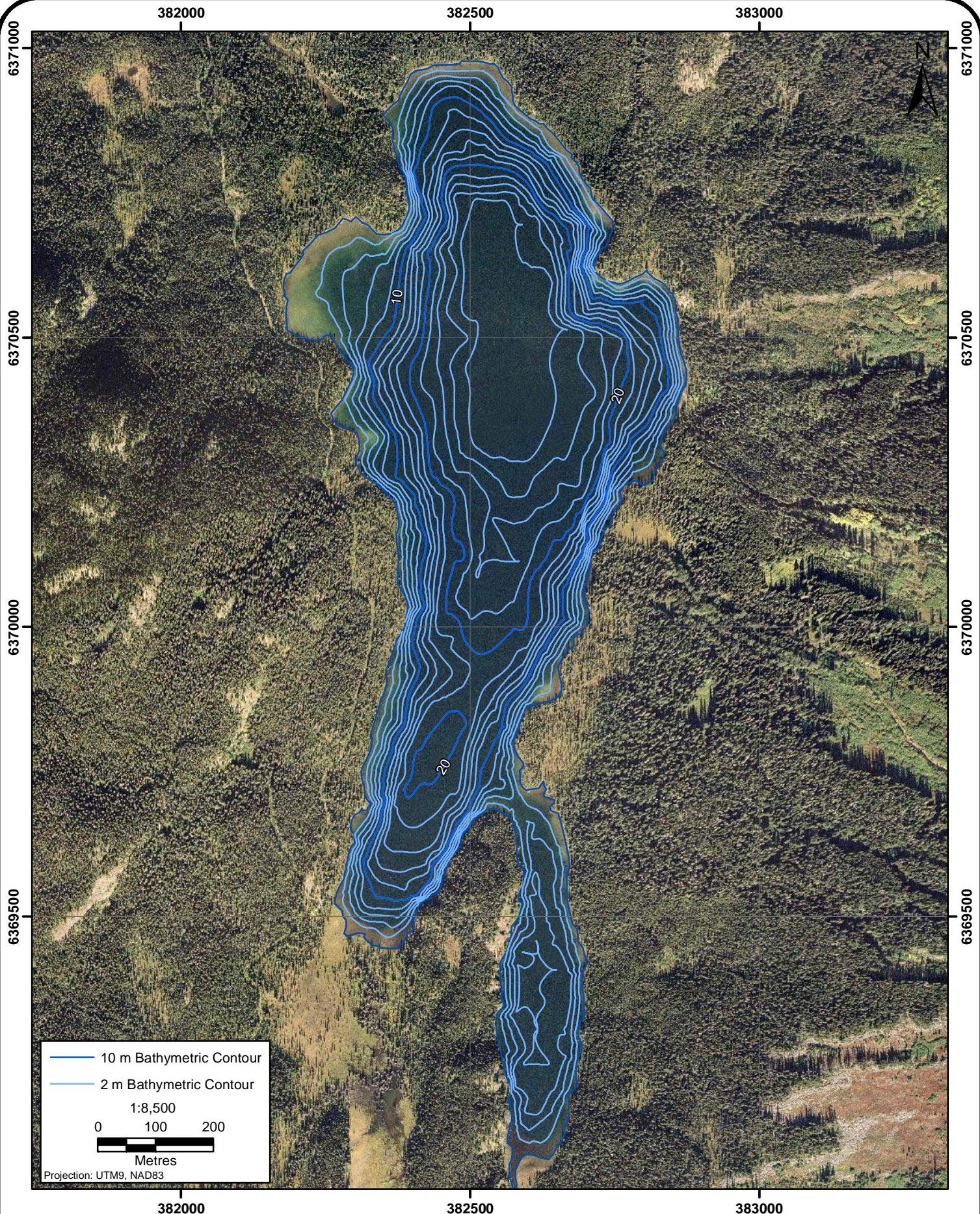
Elevation contours were created from the resulting surfaces for each lake. Elevation contours are based on the surface water level at the time of the survey, and the shoreline delineation resulting from the orthophotograph used to produced the bathymetric map (Eagle Mapping, 2006). The Skeeter Lake bathymetric transect is presented in Figure 2.3-1 and the resulting bathymetry is presented in Figure 2.3-2. A summary of statistics for each lake is found in Table 2.3-1.

**Table 2.3-1. Summary of Bathymetric Survey Statistics for Skeeter and Start Lakes**

	<b>Start Lake</b>	<b>Skeeter Lake</b>
Area (m <sup>2</sup> )	226,410	605,410
Volume (m <sup>3</sup> )	1,316,210	8,766,640
Average Depth (m)	5.8	14.5
Maximum Depth (m)	14	29







At Start Lake, the SeaMax depth sounder failed to record a high density of measurements for an area at the northern end of the lake (Figure 2.3-3). For this region, 13 depth measurements were taken, which corresponds to a measurement-to-surface area ratio of 1:3,371 m<sup>2</sup>. For the other regions of the lake, a measurement-to-surface area ratio of 1:587 m<sup>2</sup> was obtained. To complete the bathymetric analysis, estimates were made at 14 points in the low measurement density area. The approximations were based on the average lakebed slope at the location closest to shore. The total of 27 estimated and measured points increased the density of points in the area in question to 1:1,511 m<sup>2</sup>. The resulting bathymetric map produced from the transect information is presented in Figure 2.3-4. The volume of the low density area represents 19% of the total volume of the lake.

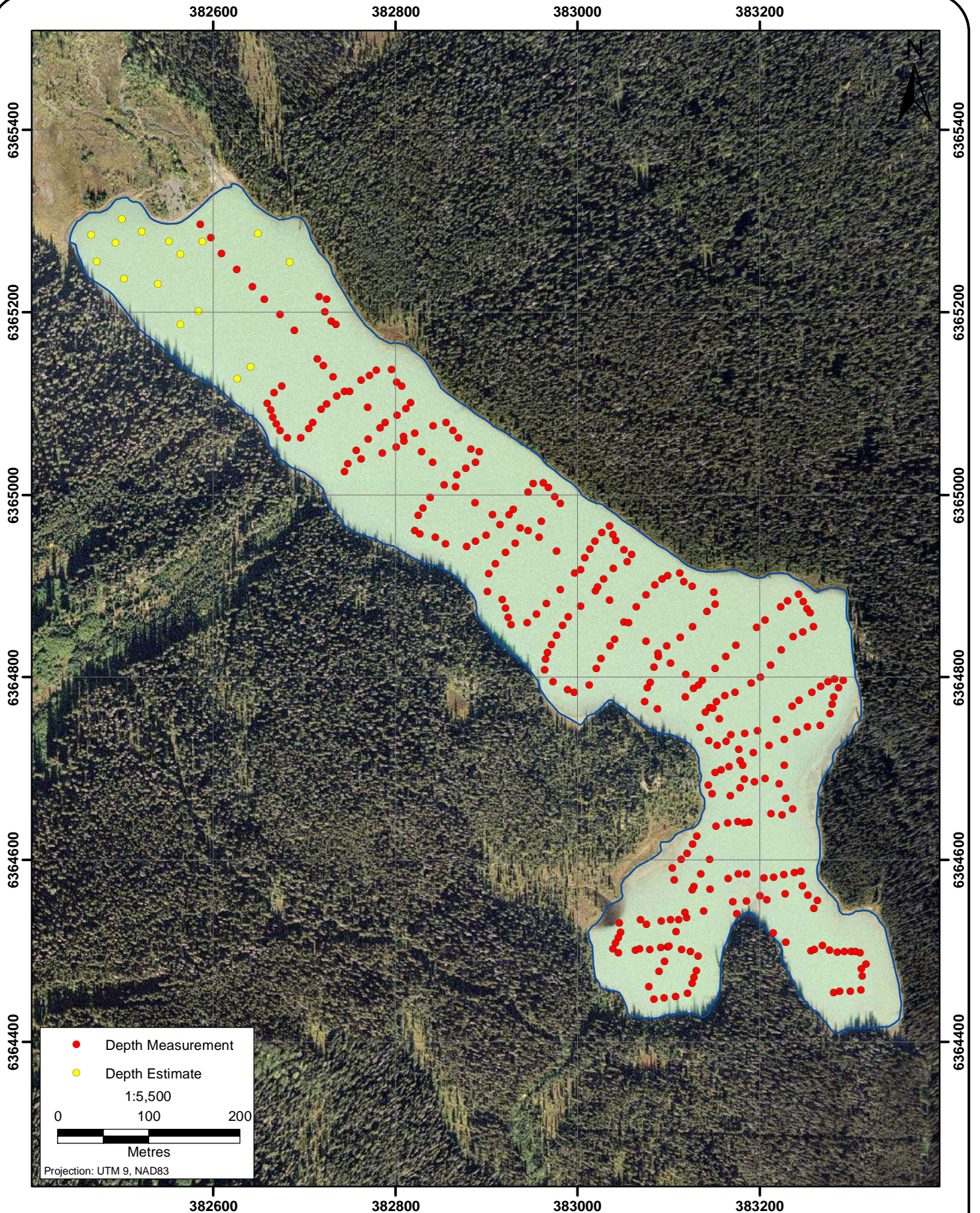
Storage volumes were determined for various water levels in each lake, based on the bathymetric data. Storage-elevations were determined at 1 m intervals for Skeeter Lake (Table 2.3-2) and 0.5 intervals for Start Lake (Table 2.3-3).

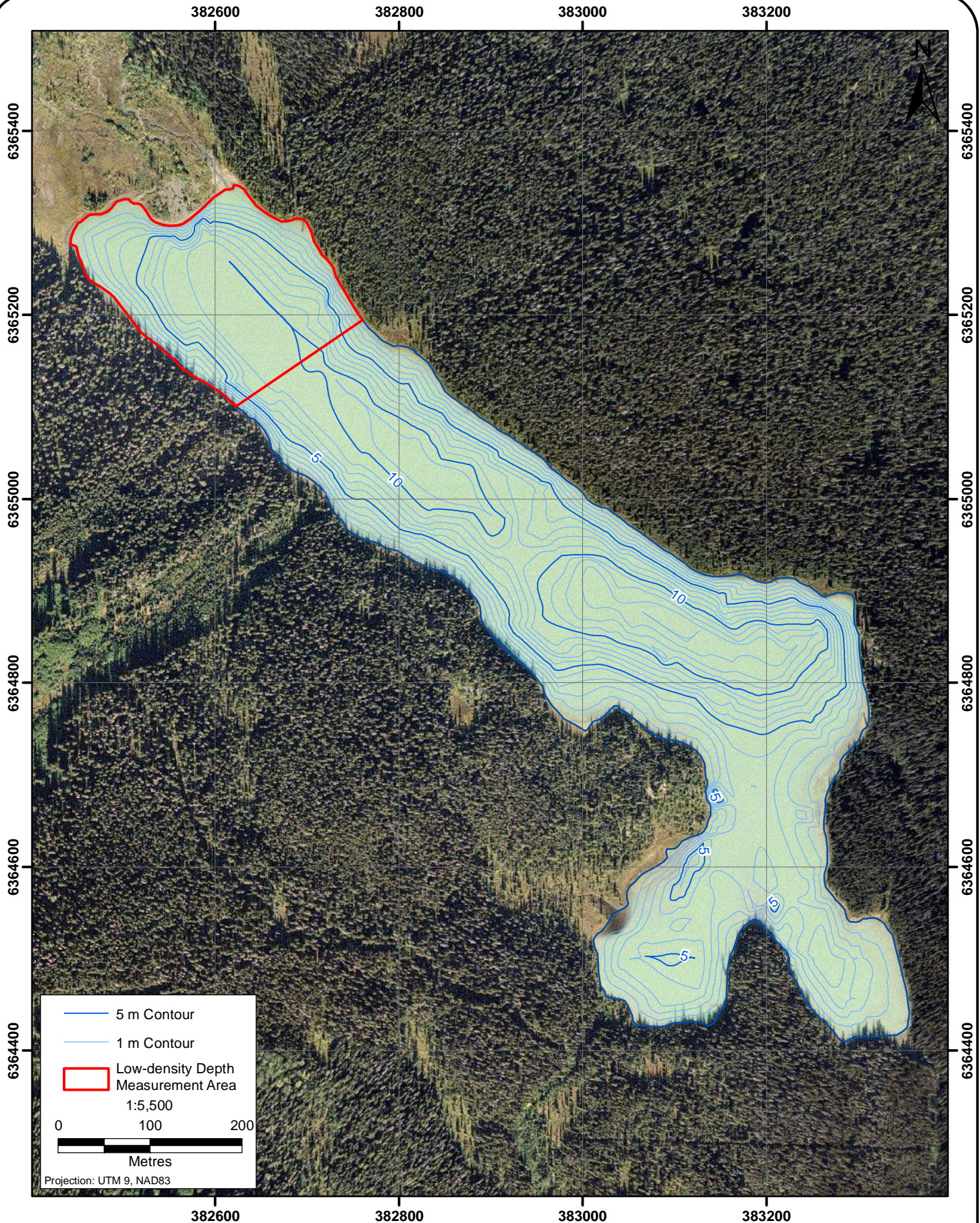
**Table 2.3-2 Skeeter Lake Storage Volumes**

Depth from Water Surface (m)	Lake Volume (Mm <sup>3</sup> )	Water Surface Depth (m)	Lake Volume (Mm <sup>3</sup> )	Water Surface Depth (m)	Lake Volume (Mm <sup>3</sup> )
29	0.000	19	1.27	9	4.36
28	0.045	18	1.50	8	4.75
27	0.110	17	1.76	7	5.17
26	0.193	16	2.03	6	5.61
25	0.292	15	2.32	5	6.04
24	0.406	14	2.62	4	6.56
23	0.541	13	2.94	3	7.07
22	0.695	12	3.27	2	7.61
21	0.865	11	3.61	1	8.18
20	1.054	10	3.98	0	8.77

**Table 2-3-3. Start Lake Storage Volumes**

Depth from Water Surface (m)	Lake Volume (Mm <sup>3</sup> )	Water Surface Depth (m)	Lake Volume (Mm <sup>3</sup> )	Water Surface Depth (m)	Lake Volume (Mm <sup>3</sup> )
14.0	0.000	9.0	0.100	4.0	0.577
13.5	0.000	8.5	0.132	3.5	0.646
13.0	0.002	8.0	0.167	3.0	0.722
12.5	0.005	7.5	0.207	2.5	0.807
12.0	0.011	7.0	0.250	2.0	0.897
11.5	0.017	6.5	0.297	1.5	0.994
11.0	0.025	6.0	0.346	1.0	1.10
10.5	0.038	5.5	0.399	0.5	1.20
10.0	0.054	5.0	0.454	0.0	1.32
9.5	0.074	4.5	0.514		





## **3. Summary**



### **3. Summary**

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In 2008, hydrological monitoring continued in the Schaft Creek area at eight locations within the Schaft Creek and Mess Creek watersheds. At each station an automated pressure transducer and data logger recorded water level readings every ten minutes and a total of 48 manual flow measurements were conducted. This data extends data sets presented in previous reports and improves existing stage-discharge rating curves.

Annual runoff was observed to range from 1,870 mm (HC-1) to 400 mm (SK-2) across the Project area. Except for HC-1, runoff values were the lowest since the inception of the monitoring program in 2006. On-site snow water equivalent was also lowest in 2008, which helps to explain the lower runoff values. Runoff values for 2006, 2007 and 2008 are consistent with observations from active WSC regional stations.

The annual peak flow recorded at the lower elevations stations (SCTR-1, SK-1, and SK 2) was due to a spring snowmelt event in late May. The annual peak flow recorded at the higher elevations stations (HC-1, SC-2, SCTR-2, SCTR-3, and MESS-1) was due to sustained rainfall combined with continued snow and glacier melt in mid August.

Bathymetric surveys were conducted at Skeeter and Start Lakes in September 2008.

## References



## References

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- Church, M.A. 1997. *Regionalized Hydrological Estimates for British Columbia: First Approximations of Scale Effects*. Report to Resources Inventory and Data Management Branch, British Columbia, Ministry of Environment, Lands, and Parks, Victoria. 42pp.
- Coulson, C.H. and Obedkoff, W. 1998. *British Columbia Streamflow Inventory*. Water Inventory Section, Resources Inventory Branch, BC Ministry of Environment, Lands, and Parks. Victoria, BC.
- Eagle Mapping. 2006. Orthophotographs taken of Skeeter Lake and Start Lake on September 15, 2006.
- Eaton, B., Church, M. and D. Ham. 2002. Scaling and regionalization of flood flows in British Columbia, Canada. *Hydrological Processes* 16: 3245-3263.
- Ministry of Environment Lands and Parks. 1998. Manual of Standard Operating Procedures for Hydrometric Surveys in British Columbia.
- Obedkoff, W., 2001. *Streamflow in the Skeena Region*. Water Inventory Section, Resources Inventory Branch, BC Ministry of Environment, Lands, and Parks. Victoria, BC.
- Rescan Environmental Services Ltd. (Rescan). 2006. *Galore Creek Surface Hydrology Assessment Baseline Report*. Prepared for NovaGold Canada Inc. March 2006.
- Rescan Tahltan Environmental Consultants (RTEC). 2007. *Schaft Creek Project 2006 Hydrology Baseline Report*. Prepared for Copper Fox Metals Inc. March 2007.
- Rescan Tahltan Environmental Consultants (RTEC). 2008. *Schaft Creek Project 2007 Hydrology Baseline Report*. Prepared for Copper Fox Metals Inc. March 2008.
- Rescan Tahltan Environmental Consultants (RTEC). 2008. *Schaft Creek Project 2007 Meteorology Baseline Report*. Prepared for Copper Fox Metals Inc. February 2008.
- Rescan Tahltan Environmental Consultants (RTEC). 2009. *Schaft Creek Project 2008 and 2009 Meteorology Baseline*. Prepared for Copper Fox Metals Inc. December 2009



# **Appendix 1**

## **2008 Manual Flow Measurements**



**Table A1-1. Manual Flow Measurements at HC-1 in 2008**

Date Monitored: January 30, 2008		Staff Gauge (m):		-	
Time (24 hr): 11:30		Pressure Transducer (m):		<b>0.230</b>	
Personnel: C. Doughty, D. Day		Discharge (m <sup>3</sup> /s):		<b>0.425</b>	
Method: Velocity - area with Flow Tracker					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% of Total
Left Bank	1.5	20	0.00	0.000	0.0
	1.8	18	0.00	0.000	0.0
	2.2	19	0.00	0.000	0.0
	2.5	19	0.32	0.040	9.4
	3.5	25	0.31	0.066	15.6
	4.2	25	0.22	0.034	7.9
	4.7	20	0.35	0.042	9.9
	5.4	26	0.22	0.034	8.1
	5.9	43	0.32	0.076	18.0
	6.5	38	0.43	0.090	21.0
Right Bank	7.0	40	0.43	0.043	10.1

Date Monitored: March 11, 2008		Staff Gauge (m):		-	
Time (24 hr): 13:40		Pressure Transducer (m):		-	
Personnel: S Guenther, D Day		Discharge (m <sup>3</sup> /s):		<b>0.063</b>	
Method: Velocity - area with Flow Tracker					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% of Total
Right Bank	0.0	0	0.00	0.000	0.0
	0.5	32	0.02	0.002	2.5
	0.9	36	0.04	0.004	6.6
	1.3	36	0.01	0.004	5.7
	1.7	32	0.03	0.003	4.2
	2.1	22	0.07	0.005	7.9
	2.5	19	0.07	0.006	9.1
	2.9	15	0.04	0.004	6.1
	3.3	14	0.12	0.005	7.2
	3.7	16	0.27	0.012	19.0
	4.1	20	0.01	0.009	14.3
	4.5	18	0.02	0.001	1.8
	4.9	17	0.02	0.001	2.2
	5.3	19	0.04	0.002	3.5
	5.7	15	0.07	0.004	5.7
	6.0	10	0.01	0.002	2.7
Left Bank	7.5	0	0.00	0.001	1.2

Date Monitored: April 24, 2008		Staff Gauge (m):		-		
Time (24 hr): 9:15		Pressure Transducer (m):		<b>0.170</b>		
Personnel: G.Norton, R. Larson		Discharge (m <sup>3</sup> /s):		<b>0.114</b>		
Method Velocity - area with Swoffer						
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% of Total	
Left Bank	0.0	0	0.00	0.000	0.0	
	0.5	7	0.00	0.000	0.0	
	1.0	16	0.00	0.000	0.0	
	1.5	20	0.01	0.001	0.4	
	2.0	18	0.01	0.000	0.4	
	2.5	15	0.16	0.009	7.6	
	behind rock	2.8	15	0.00	0.000	0.0
	behind rock	3.0	19	0.10	0.005	4.2
	behind rock	3.3	19	0.00	0.000	0.0
		3.5	14	0.00	0.000	0.0
		3.8	21	0.01	0.000	0.4
		4.0	21	0.10	0.005	4.6
		4.3	20	0.11	0.006	4.8
		4.5	21	0.09	0.005	4.0
		4.8	20	0.04	0.002	1.8
		5.0	22	0.17	0.009	8.2
	5.3	20	0.13	0.006	5.6	
	5.5	21	0.17	0.009	7.6	
	5.8	23	0.16	0.009	8.1	
	6.0	25	0.17	0.011	9.3	
	6.3	23	0.18	0.010	9.1	
	6.5	21	0.16	0.021	18.4	
Right Bank	7.5	0	0.00	0.006	5.5	

(continued)

**Table A1-1. Manual Flow Measurements at HC-1 in 2008 (completed)**

Date Monitored: May 24, 2008			Staff Gauge (m): <b>0.750</b>		
Time (24 hr): 14:00			Pressure Transducer (m): <b>0.700</b>		
Personnel: R. Larson, C. Vance			Discharge (m <sup>3</sup> /s): <b>5.63</b>		
Method Velocity - area with Swoffer					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% of Total
Left Bank	2.1	0	0.00	0.000	0.0
	2.6	7	1.00	0.032	0.6
	3.0	20	1.14	0.103	1.8
	3.5	28	1.43	0.197	3.5
	4.0	34	1.20	0.201	3.6
	4.5	37	1.06	0.193	3.4
	5.0	55	1.68	0.462	8.2
	5.5	58	0.71	0.206	3.7
	6.0	49	1.76	0.431	7.7
	6.5	54	1.64	0.443	7.9
	7.0	49	1.82	0.669	11.9
	8.0	40	1.97	0.591	10.5
	8.5	57	1.58	0.446	7.9
	9.0	59	1.12	0.330	5.9
	9.5	61	1.39	0.424	7.5
	10.0	54	1.22	0.329	5.9
	10.5	32	1.14	0.180	3.2
11.0	45	1.04	0.234	4.2	
11.5	16	1.01	0.081	1.4	
12.0	14	0.83	0.058	1.0	
12.5	5	0.07	0.002	0.0	
13.0	3	0.30	0.005	0.1	
13.5	14	0.16	0.011	0.2	
14.0	0	0.00	0.000	0.0	
Right Bank	14.4	0	0.00	0.000	0.0

Date Monitored: July 18, 2008			Staff Gauge (m): <b>0.760</b>		
Time (24 hr): 14:30			Pressure Transducer (m): <b>0.754</b>		
Personnel: C.Doughty, K. Louie			Discharge (m <sup>3</sup> /s): <b>9.65</b>		
Method: Salt Dilution					
					Q (m <sup>3</sup> /s)
Right Bank	<i>See Figure A1-1</i>				9.65

Date Monitored: September 24, 2008			Staff Gauge (m): <b>0.557</b>		
Time (24 hr): 8:55			Pressure Transducer (m): <b>0.545</b>		
Personnel: X. Pinto, K. Louie			Discharge (m <sup>3</sup> /s): <b>3.56</b>		
Method: Salt dilution					
					Q (m <sup>3</sup> /s)
Single Bank (undefined)	<i>See Figure A1-1</i>				3.56

Date Monitored: November 26, 2008			Staff Gauge (m): <b>0.880</b>		
Time (24 hr): 11:30			Pressure Transducer (m): <b>0.863</b>		
Personnel: R. Larson, O. Dennis			Discharge (m <sup>3</sup> /s): <b>0.757</b>		
Method: Velocity - area with Flow Tracker					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% of Total
Right Bank	-0.8	0	0.00	0.000	0.0
	2.2	31	0.00	0.000	0.0
	3.0	48	0.02	0.007	0.9
	3.5	57	-0.15	-0.042	-5.6
	4.0	63	0.28	0.070	9.2
	4.3	66	0.59	0.117	15.4
	4.6	74	0.49	0.109	14.3
	4.9	73	0.36	0.079	10.4
	5.2	73	0.65	0.143	18.9
	5.5	70	0.55	0.155	20.5
	6.0	59	-0.13	-0.082	-10.8
	7.7	42	0.17	0.077	10.1
	8.2	32	0.17	0.116	15.3
Left Bank	12.0	0	0.00	0.010	1.4

**Table A1-2. Manual Flow Measurements at SC-2 in 2008**

Date Monitored: January 30, 2008					
Time (24 hr): 14:30					
Personnel: C. Doughy, D. Day					
Method: Velocity - area with Flow Tracker					
				Staff Gauge (m):	-
				Pressure Transducer (m):	-
				Discharge (m <sup>3</sup> /s):	<b>0.856</b>
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Left Bank	6.3	0	0.00	0.000	0.0
	6.0	52	0.04	0.007	0.8
	5.6	50	0.58	0.116	13.5
	5.2	50	0.25	0.050	5.8
	4.8	50	0.32	0.064	7.4
	4.4	54	0.43	0.093	10.8
	4.0	52	0.63	0.131	15.3
	3.6	56	0.21	0.047	5.4
	3.2	52	0.06	0.014	1.6
	2.8	49	0.50	0.098	11.4
	2.4	54	0.39	0.085	9.9
	2.0	45	0.62	0.111	13.0
	1.6	36	0.30	0.043	5.0
	Right Bank	1.2	0	0.00	0.000

Date Monitored: March 11, 2008						
Time (24 hr): 11:10						
Personnel: SC-2						
Method: S. Guenther, D. Day						
				Staff Gauge (m):	-	
				Pressure Transducer (m):	-	
				Discharge (m <sup>3</sup> /s):	<b>0.102</b>	
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total	
Right Bank	7.8	0	0.00	0.000	0.0	
	7.0	18	0.04	0.003	2.8	
	6.5	22	0.01	0.002	2.3	
	6.0	24	0.10	0.007	6.4	
	5.5	4	0.07	0.007	6.6	
	5.0	20	0.07	0.004	4.1	
	4.5	32	0.08	0.010	9.7	
	4.0	34	0.06	0.012	11.3	
	3.5	36	0.04	0.009	8.5	
	3.0	30	0.04	0.007	6.5	
	2.5	28	0.03	0.005	5.0	
	2.0	24	0.10	0.008	7.9	
	1.5	24	0.18	0.017	16.5	
	1.0	10	0.03	0.012	11.3	
	Left Bank	0.3	0	0.00	0.001	1.0

Date Monitored: April 25, 2008						
Time (24 hr): 11:00						
Personnel: G.Norton, R. Larson						
Method Velocity - area with Swoffer						
				Staff Gauge (m):	-	
				Pressure Transducer (m):	<b>-0.055</b>	
				Discharge (m <sup>3</sup> /s):	<b>0.927</b>	
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total	
Right Bank	-0.2	0	0.00	0.003	0.3	
	0.8	14	0.16	0.016	1.7	
	1.2	16	0.95	0.061	6.6	
	1.6	21	1.05	0.088	9.5	
	2.0	29	0.77	0.089	9.6	
	2.4	31	0.94	0.117	12.6	
	2.8	28	0.83	0.093	10.0	
	3.2	25	0.45	0.045	4.9	
	3.6	24	0.28	0.027	2.9	
	4.0	31	0.71	0.088	9.5	
	4.4	33	0.95	0.125	13.5	
	4.8	25	0.66	0.066	7.1	
	5.2	24	0.57	0.055	5.9	
	5.6	18	0.08	0.006	0.6	
	6.0	15	0.37	0.022	2.4	
	6.4	5	0.47	0.022	2.4	
	Left Bank	7.9	0	0.00	0.004	0.5

(continued)

**Table A1-2. Manual Flow Measurements at SC-2 in 2008 (completed)**

Date Monitored: May 25, 2008	Staff Gauge (m):	<b>-0.050</b>
Time (24 hr): 10:00	Pressure Transducer (m):	<b>0.83</b>
Personnel: R. Larson, C. Vance	Discharge (m <sup>3</sup> /s):	<b>13.5</b>
Method: Salt Dilution		
Notes	Q	(m <sup>3</sup> /s)
Right Bank		13.5
<i>See Figure A1-2</i>		

Date Monitored: July 18, 2008	Staff Gauge (m):	<b>underwater</b>
Time (24 hr): 12:10	Pressure Transducer (m):	<b>1.34</b>
Personnel: C. Doughty, K. Louie	Discharge (m <sup>3</sup> /s):	<b>20.9</b>
Method: Salt Dilution		
Notes	Q	(m <sup>3</sup> /s)
Left Bank		9.65
<i>See Figure A1-2</i>		

Date Monitored: September 23, 2008	Staff Gauge (m):	<b>out of water</b>
Time (24 hr): 12:00	Pressure Transducer (m):	<b>0.392</b>
Personnel: X. Pinto, K. Louie	Discharge (m <sup>3</sup> /s):	<b>6.55</b>
Method: Salt dilution		
Notes	Q	(m <sup>3</sup> /s)
Single Bank (undefined)		9.65
<i>See Figure A1-2</i>		

Date Monitored: November 26, 2008	Staff Gauge (m):	-			
Time (24 hr): 13:15	Pressure Transducer (m):	-			
Personnel: R. Larson, O. Dennis	Discharge (m <sup>3</sup> /s):	<b>2.24</b>			
Method: Velocity-Area using Flow Tracker					
Notes	Station	Depth	Velocity	Q	% Total
	(m)	(cm)	(m/s)	(m <sup>3</sup> /s)	
Right Bank	0.5	0	0.00	0.002	0.1
	1.2	10	0.23	0.012	0.6
	1.6	30	1.08	0.129	5.8
	2.0	37	1.11	0.165	7.4
	2.4	50	0.97	0.193	8.6
	2.8	44	1.34	0.236	10.5
	3.2	42	1.46	0.246	11.0
	3.6	56	1.32	0.296	13.2
	4.0	43	1.03	0.177	7.9
	4.4	45	0.77	0.139	6.2
	4.8	49	1.22	0.238	10.6
	5.2	45	0.70	0.127	5.7
	5.6	39	0.40	0.062	2.8
	6.0	38	0.54	0.083	3.7
	6.4	31	0.44	0.055	2.5
	6.8	30	0.26	0.032	1.4
	7.2	21	0.22	0.051	2.3
Left Bank	9.0	0	0.00	0.012	0.6

**Table A1-3. Manual Flow Measurements at SCTR-1 in 2008**

Date Monitored: January 30, 2008			Staff Gauge (m): -		
Time (24 hr): 13:00			Pressure Transducer (m): -		
Personnel: C. Doughty, D. Day			Discharge (m <sup>3</sup> /s): <b>0.005</b>		
Method: Velocity - area with Flow Tracker					
	Station	Depth to Be	Velocity	Q	% Total
Notes	(m)	(cm)	(m/s)	(m <sup>3</sup> /s)	
Left Bank	0.4	0	0.00	0.000	0.0
	1.2	14	0.00	0.000	1.0
	1.45	14	0.07	0.003	72.8
	1.9	10	0.03	0.001	26.3
Right Bank	2.2	0	0.00	0.000	0.0

Date Monitored: March 11, 2008			Staff Gauge (m): -		
Time (24 hr): 14:35			Pressure Transducer (m): -		
Personnel: S. Guenther, D. Day			Discharge (m <sup>3</sup> /s): <b>0.003</b>		
Method: Velocity - area with Flow Tracker					
	Station	Depth	Velocity	Q	% Total
Notes	(m)	(cm)	(m/s)	(m <sup>3</sup> /s)	
Left Bank	0.0	0	0.00	0.000	0.0
	0.2	11	0.03	0.000	11.7
	0.4	8	0.09	0.001	37.1
	0.6	13	0.01	0.001	30.0
	0.8	8	0.02	0.000	10.2
	1.0	6	0.01	0.000	7.8
Right Bank	1.3	0	0.00	0.000	3.2

Date Monitored: April 24, 2008			Staff Gauge (m): <b>0.040</b>		
Time (24 hr): 10:30			Pressure Transducer (m): <b>0.080</b>		
Personnel: G.Norton, R. Larson			Discharge (m <sup>3</sup> /s): <b>0.028</b>		
Method Velocity - area with Swoffer					
	Station	Depth	Velocity	Q	% Total
Notes	(m)	(cm)	(m/s)	(m <sup>3</sup> /s)	
Right Bank	0.4	0	0.00	0.000	0.0
	0.5	8	0.01	0.000	0.1
	0.6	9	0.09	0.001	2.9
	0.7	8	0.04	0.000	1.7
	0.9	6	0.04	0.000	1.3
	1.0	8	0.00	0.000	0.0
	1.1	7	0.01	0.000	0.3
	1.2	8	0.05	0.000	1.4
	1.3	9	0.10	0.001	3.2
	1.4	10	0.15	0.002	5.4
	1.5	13	0.26	0.003	12.2
	1.6	14	0.26	0.004	13.1
	1.7	10	0.28	0.003	10.1
	1.8	11	0.24	0.003	9.5
	1.9	12	0.24	0.003	10.4
	Left Bank	2.0	14	0.22	0.006
2.3		0	0.00	0.002	6.2

(continued)

**Table A1-3. Manual Flow Measurements at SCTR-1 in 2008 (completed)**

Date Monitored: May 24, 2008			Staff Gauge (m): <b>0.280</b>		
Time (24 hr): 15:30			Pressure Transducer (m): <b>0.328</b>		
Personnel: R. Larson, C. Vance			Discharge (m <sup>3</sup> /s): <b>0.440</b>		
Method Velocity - area with Swoffer					
	Station	Depth	Velocity	Q	% Total
Notes	(m)	(cm)	(m/s)	(m <sup>3</sup> /s)	
Right Bank	3.1	0	0.00	0.000	0.1
	2.8	26	0.03	0.001	0.3
	2.7	32	0.06	0.003	0.6
rock	2.5	0	0.00	0.000	0.0
	2.4	37	0.04	0.002	0.5
	2.2	41	0.60	0.031	7.0
	2.1	45	0.60	0.027	6.1
	2.0	45	0.67	0.030	6.9
	1.9	48	0.74	0.036	8.1
	1.8	48	1.05	0.050	11.3
	1.7	50	1.12	0.056	12.7
	1.6	36	1.14	0.040	9.2
	1.5	36	1.28	0.046	10.5
	1.4	39	1.21	0.047	10.7
	1.3	37	1.01	0.037	8.5
	1.2	31	0.55	0.017	3.9
	1.1	36	0.10	0.004	0.8
	1.0	35	0.24	0.008	1.9
	0.9	0	0.00	0.000	0.0
	0.8	27	0.14	0.004	0.9
	0.7	0	0.00	0.000	0.0
	0.6	0	0.00	0.000	0.0
Left Bank	0.4	0	0.00	0.000	0.0

Date Monitored: July 20, 2008			Staff Gauge (m): <b>0.140</b>		
Time (24 hr): 16:00			Pressure Transducer (m): <b>0.165</b>		
Personnel: C. Doughty, K. Louie			Discharge (m <sup>3</sup> /s): <b>0.116</b>		
Method: Salt Dilution					
					Q (m <sup>3</sup> /s)
Single Bank (undefined)					<b>0.116</b>
<i>See Figure A1-3</i>					

Date Monitored: September 23, 2008			Staff Gauge (m): <b>0.114</b>		
Time (24 hr): 12:20			Pressure Transducer (m): <b>0.134</b>		
Personnel: X. Pinto, K. Louie			Discharge (m <sup>3</sup> /s): <b>0.052</b>		
Method: Salt dilution					
					Q (m <sup>3</sup> /s)
Single Bank (undefined)					<b>0.052</b>
<i>See Figure A1-3</i>					

**Table A1-4. Manual Flow Measurements at SCTR-2 in 2008**

Date Monitored: February 3, 2008		Staff Gauge (m):		-	
Time (24 hr): 15:00		Pressure Transducer (m):		-	
Personnel: C. Doughty, D. Day		Discharge (m <sup>3</sup> /s):		<b>0.090</b>	
Method: Velocity - area with Flow Tracker					
Notes	Station (m)	Depth to Be (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Left Bank	1.0	0	0.0	0.003	3.9
	1.8	14	0.2	0.017	19.4
	2.0	16	0.3	0.008	9.1
	2.2	20	0.6	0.022	24.5
	2.4	22	0.6	0.034	37.6
Right Bank	2.7	0	0.0	0.005	5.6

Date Monitored: March 11, 2008		Staff Gauge (m):		-	
Time (24 hr): 9:45		Pressure Transducer (m):		-	
Personnel: S. Guenther, D. Day		Discharge (m <sup>3</sup> /s):		<b>0.104</b>	
Method: Velocity - area with Flow Tracker					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	8.5	0	0.00	0.000	0.0
	7.5	31	0.08	0.013	12.4
	7.0	29	0.10	0.014	13.1
	6.5	14	0.06	0.009	8.9
	6.0	29	0.11	0.010	9.7
	5.5	12	0.06	0.010	9.4
	5.0	10	0.18	0.006	6.0
	4.5	20	0.04	0.007	6.2
	4.0	23	0.10	0.008	7.4
	3.5	14	0.11	0.010	9.2
	3.0	20	0.05	0.006	6.1
	2.5	23	0.05	0.005	5.2
	2.0	15	0.05	0.005	4.6
	1.5	10	0.00	0.002	1.8
	Left Bank	0.8	0	0.00	0.000

Date Monitored: April 24, 2008		Staff Gauge (m):		<b>0.270</b>	
Time (24 hr): 12:00		Pressure Transducer (m):		<b>0.244</b>	
Personnel: G.Norton, R. Larson		Discharge (m <sup>3</sup> /s):		<b>0.254</b>	
Method: Velocity - area with Swoffer					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	0.0	0	0.00	0.000	0.1
	1.0	8	0.06	0.004	1.4
	1.5	15	0.16	0.011	4.2
	1.9	15	0.18	0.010	4.1
	2.3	18	0.08	0.006	2.2
	2.7	21	0.39	0.032	12.6
	3.1	31	0.33	0.040	15.8
	3.5	35	0.33	0.046	18.2
	3.9	33	0.38	0.050	19.7
	4.3	39	0.11	0.017	6.8
	4.7	28	0.15	0.017	6.6
	5.1	29	0.10	0.012	4.6
	5.5	28	0.05	0.006	2.2
	5.9	31	0.03	0.004	1.5
	6.3	21	0.00	0.000	0.0
6.6	14	0.00	0.000	0.0	
Left Bank	7.0	0	0.00	0.000	0.0

(continued)



**Table A1-4. Manual Flow Measurements at SCTR-2 in 2008 (completed)**

Date Monitored: May 25, 2008		Staff Gauge (m): <b>0.575</b>			
Time (24 hr): 11:15		Pressure Transducer (m): <b>0.520</b>			
Personnel: R. Larson, C. Vance		Discharge (m <sup>3</sup> /s): <b>5.88</b>			
Method: Velocity - area with Swoffer					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	21	0	0	0.005	0.1
	20.6	15	0.48	0.050	0.9
	19.6	28	0.45	0.113	1.9
	18.8	24	0.89	0.160	2.7
	18.1	26	0.76	0.126	2.1
	17.5	21	0.77	0.162	2.7
	16.1	21	0.4	0.105	1.8
	15	23	0.98	0.237	4.0
	14	31	0.86	0.267	4.5
	13	27	0.72	0.194	3.3
	12	37	0.72	0.263	4.5
	11	38	0.47	0.179	3.0
	10	38	0.44	0.165	2.8
	9	44	1.29	0.568	9.6
	8	43	1.25	0.531	9.0
	7	64	1.1	0.704	12.0
	6	61	1.53	0.933	15.9
5	53	1.55	0.822	14.0	
4	58	0.51	0.296	5.0	
3	24	0.01	0.002	0.0	
Left Bank	2	0	0	0.000	0.0

Date Monitored: May 25, 2008		Staff Gauge (m): <b>0.575</b>		
Time (24 hr): 11:15		Pressure Transducer (m): <b>0.520</b>		
Personnel: R. Larson, C. Vance		Discharge (m <sup>3</sup> /s): <b>4.64</b>		
Method: Salt Dilution				
Q (m <sup>3</sup> /s)				
Single Bank	<i>See Figure A1-4</i>			4.64

Date Monitored: July 20, 2008		Staff Gauge (m): <b>0.665</b>		
Time (24 hr): 9:30		Pressure Transducer (m): <b>0.616</b>		
Personnel: C. Doughty, K. Louie		Discharge (m <sup>3</sup> /s): <b>6.83</b>		
Method: Salt Dilution				
Q (m <sup>3</sup> /s)				
Left Bank	<i>See Figure A1-4</i>			6.83

Date Monitored: September 23, 2008		Staff Gauge (m): <b>0.42</b>		
Time (24 hr): 10:00		Pressure Transducer (m): <b>0.38</b>		
Flows monitored by: X. Pinto, K. Louie		Discharge (m <sup>3</sup> /s): <b>2.97</b>		
Method: Salt Dilution				
Q (m <sup>3</sup> /s)				
Single Bank (undefined)	<i>See Figure A1-4</i>			2.97

Date Monitored: November 26, 2008		Staff Gauge (m): <b>0.290</b>				
Time (24 hr): 15:00		Pressure Transducer (m): <b>0.252</b>				
Personnel: R. Larson, O. Dennis		Discharge (m <sup>3</sup> /s): <b>0.427</b>				
Method: Velocity-Area with Flow Tracker						
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total	
Right Bank	10.0	0	0.00	0.009	2.1	
	8.1	13	0.19	0.028	6.5	
	7.7	21	0.33	0.021	4.9	
	7.5	22	0.28	0.012	2.9	
	7.3	40	0.42	0.033	7.8	
	7.1	33	0.58	0.038	9.0	
	6.9	30	0.26	0.016	3.7	
	rock	6.7	31	0.37	0.028	6.6
		6.4	34	-0.02	-0.003	-0.7
		6.0	33	0.60	0.089	21.0
5.5		40	0.43	0.078	18.2	
	5.1	44	0.34	0.052	12.3	
	4.8	43	0.34	0.051	11.9	
Left Bank	4.4	0	0.00	0.011	2.5	

**Table A1-5. Manual Flow Measurements at SCTR-3 in 2008**

Date Monitored: April 28, 2008			Staff Gauge (m): -		
Time (24 hr): 14:45			Pressure Transducer (m): -		
Personnel: G.Norton, R. Larson			Discharge (m <sup>3</sup> /s): <b>0.017</b>		
Method: Velocity - area with Swoffer					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	0.90	18	0.00	0.000	3.0
	0.95	18	0.22	0.003	17.9
	1.05	15	0.18	0.003	16.3
	1.15	16	0.10	0.002	9.7
	1.25	19	0.07	0.001	8.0
behind rock	1.35	22	0.00	0.000	0.0
behind rock	1.45	23	0.00	0.000	0.0
behind rock	1.55	18	0.01	0.000	0.5
	1.65	23	0.07	0.002	9.7
	1.75	23	0.08	0.002	11.1
	1.85	24	0.07	0.002	10.1
	1.95	25	0.00	0.000	0.0
	2.05	25	0.00	0.000	0.0
	2.15	23	0.04	0.001	5.4
	2.25	23	0.02	0.001	8.0
Left Bank	2.30	11	0.00	0.000	0.3

Date Monitored: July 18, 2008			Staff Gauge (m): <b>0.430</b>		
Time (24 hr): 10:20			Pressure Transducer (m): <b>0.416</b>		
Personnel: C. Doughty, K. Louie			Discharge (m <sup>3</sup> /s): <b>0.78</b>		
Method: Salt Dilution					
				Q (m <sup>3</sup> /s)	
Right Bank	<i>See Figure A1-5</i>				0.78

Date Monitored: September 23, 2008			Staff Gauge (m): -		
Time (24 hr): 14:00			Pressure Transducer (m): <b>0.205</b>		
Personnel: X. Pinto, K. Louie			Discharge (m <sup>3</sup> /s): <b>0.350</b>		
Method: Salt dilution					
				Q (m <sup>3</sup> /s)	
Single Bank (undefined)	<i>See Figure A1-5</i>				0.35

Date Monitored: November 27, 2008			Staff Gauge (m): <b>0.080</b>		
Time (24 hr): 10:45			Pressure Transducer (m): -		
Personnel: R. Larson, O. Dennis			Discharge (m <sup>3</sup> /s): <b>0.020</b>		
Method: Velocity-Area using Flow Tracker					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	2.00	0	0.000	0.0015	7.4
	1.85	20	0.248	0.0062	30.7
	1.75	19	0.517	0.0098	48.6
	1.65	15	0.335	0.0050	24.9
	1.55	14	0.297	0.0042	20.6
	1.45	10	0.189	0.0019	9.4
	1.35	10	-0.030	-0.0005	-2.2
	1.15	9	-0.001	0.0000	-0.1
Left Bank	0.70	0	0.000	-0.0002	-1.0

**Table A1-6. Manual Flow Measurements at SK-1 in 2008**

Date Monitored: March 12, 2008			Staff Gauge (m): -		
Time (24 hr): 12:10			Pressure Transducer (m): -		
Personnel: S. Guenther, D. Day			Discharge (m <sup>3</sup> /s): <b>0.014</b>		
Method: Velocity - area with Flow Tracker					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	1.20	0	0.00	0.000	0.0
	1.50	10	0.03	0.000	3.2
	1.80	12	0.04	0.001	8.2
	2.10	10	0.04	0.001	9.3
	2.40	8	0.01	0.001	5.1
	2.70	6	0.13	0.001	9.1
	3.00	6	0.10	0.002	14.5
	3.30	8	0.05	0.002	10.5
	3.60	8	0.01	0.001	5.1
	3.90	10	0.06	0.001	7.2
	4.20	9	0.01	0.001	7.3
	4.50	10	0.01	0.000	2.0
	4.80	8	0.01	0.000	1.9
	5.10	4	0.01	0.000	1.3
5.40	6	0.09	0.001	6.1	
Left Bank	5.90	0	0.00	0.0014	9.5

Date Monitored: April 25, 2008			Staff Gauge (m): -		
Time (24 hr): 14:45			Pressure Transducer (m): -		
Personnel: G.Norton, R. Larson			Discharge (m <sup>3</sup> /s): <b>0.046</b>		
Method: Velocity - area with Swoffer					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	0.30	0	0.00	0.000	0.0
	0.60	13	0.00	0.000	0.0
	0.85	14	0.01	0.000	0.8
	1.10	14	0.04	0.001	3.1
	1.35	10	0.01	0.000	0.5
	1.60	10	0.13	0.003	7.1
	1.85	10	0.11	0.003	6.0
	2.10	11	0.12	0.003	7.2
	2.35	11	0.10	0.003	6.0
	2.60	14	0.17	0.006	13.0
	2.85	13	0.15	0.005	10.6
	3.10	7	0.24	0.004	9.2
	3.35	14	0.14	0.005	10.7
	3.60	9	0.17	0.004	8.3
	3.85	6	0.17	0.003	5.6
	4.10	5	0.18	0.002	4.9
	4.35	5	0.14	0.003	6.1
	Left Bank	4.90	0	0.00	0.000

Date Monitored: May 24, 2008			Staff Gauge (m): <b>0.300</b>		
Time (24 hr): 11:30			Pressure Transducer (m): <b>0.280</b>		
Personnel: R. Larson, C. Vance			Discharge (m <sup>3</sup> /s): <b>0.936</b>		
Method Velocity - area with Swoffer					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	5.70	0	0.0	0.001	0.1
	5.40	30	0.1	0.008	0.8
	5.20	23	0.1	0.003	0.3
	5.00	17	0.1	0.003	0.3
	4.80	15	0.0	0.001	0.1
	4.60	15	0.0	0.001	0.1
	4.40	20	0.0	0.002	0.2
	4.20	28	0.1	0.004	0.5
	4.00	19	0.3	0.013	1.3
	3.80	46	0.6	0.052	5.5
	3.60	51	1.0	0.098	10.5
	3.40	41	1.4	0.113	12.0
	3.20	41	1.5	0.120	12.8
	3.00	39	1.5	0.116	12.4
	2.80	38	1.3	0.096	10.3
	2.60	33	1.5	0.098	10.5
	2.40	36	0.9	0.066	7.1
	2.20	33	0.6	0.042	4.4
	2.00	32	0.9	0.055	5.9
	1.80	26	0.3	0.017	1.8
	1.60	27	0.3	0.014	1.5
	1.40	23	0.2	0.011	1.1
	1.20	10	0.2	0.004	0.4
	1.00	5	0.0	0.0004	0.0
	0.80	5	0.1	0.0006	0.1
	0.60	3	0.0	0.0001	0.0
	Left Bank	0.30	0	0.0	0.0000

(continued)

**Table A1-6. Manual Flow Measurements at SK-1 in 2008 (completed)**

Date Monitored: July 20, 2008	Staff Gauge (m): <b>0.196</b>
Time (24 hr): 11:20	Pressure Transducer (m): <b>0.208</b>
Personnel: C. Doughty, K. Louie	Discharge (m <sup>3</sup> /s): <b>0.549</b>
Method: Salt Dilution	
	Q (m <sup>3</sup> /s)
Single Bank (undefined)	<b>0.55</b>
<i>See Figure A1-6</i>	

Date Monitored: September 24, 2008	Staff Gauge (m): <b>0.059</b>
Time (24 hr): 15:35	Pressure Transducer (m): <b>0.047</b>
Personnel: X. Pinto, K. Louie	Discharge (m <sup>3</sup> /s): <b>0.303</b>
Method: Salt dilution	
	Q (m <sup>3</sup> /s)
Single Bank (undefined)	0.303
<i>See Figure A1-6</i>	

Date Monitored: November 25, 2008	Staff Gauge (m): <b>0.600</b>				
Time (24 hr): 11:45	Pressure Transducer (m): <b>0.014</b>				
Personnel: R. Larson, O. Dennis	Discharge (m <sup>3</sup> /s): <b>0.145</b>				
Method: Velocity-Area using Flow Tracker					
	Q (m <sup>3</sup> /s)				
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
RB	0.8	0	0.000	0.000	0.0
	1.2	13	0.269	0.014	9.7
	1.6	12	0.275	0.013	9.1
	2.0	12	0.262	0.013	8.7
	2.4	9	0.304	0.011	7.6
	2.8	12	0.278	0.013	9.2
	3.2	12	0.431	0.021	14.3
	3.6	13	0.324	0.017	11.7
	4.0	14	0.336	0.018	12.6
	4.4	10	0.450	0.018	12.5
	4.8	12	0.270	0.012	8.6
	5.2	6	0.228	0.005	3.8
	5.6	5	0.108	0.002	1.5
estimated	6.0	1	0.108	0.000	0.3
estimated	6.4	1	0.108	0.000	0.2
LB	6.6	0	0.000	0.000	0.0

**Table A1-7. Manual Flow Measurements at SK-2 in 2008**

Date Monitored: February 1, 2008	Staff Gauge (m):	-
Time (24 hr): 11:10	Pressure Transducer (m):	-
Personnel: C. Doughty, D. Day	Discharge (m <sup>3</sup> /s):	<b>0.000</b>
Method: Velocity - area with Flow Tracker		
<i>Note: The crew augered through 40 cm of ice to discover approximately 2 cm of still water underneath, under pressure but not flowing. The crew determined that the flow was 0 m<sup>3</sup>/s as the stream was almost completely frozen.</i>		

Date Monitored: March 12, 2008	Staff Gauge (m):	-			
Time (24 hr): 14:00	Pressure Transducer (m):	-			
Personnel: S. Guenther, D. Day	Discharge (m <sup>3</sup> /s):	<b>0.037</b>			
Method: Velocity - area with Flow Tracker					
	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Notes					
Left Bank	0.3	0	0.00	0.000	0.0
	0.7	9	0.01	0.000	0.5
	1.1	20	0.01	0.001	1.6
	1.5	12	0.04	0.001	3.7
	1.9	32	0.10	0.007	20.0
	2.3	30	0.01	0.007	19.0
	2.7	30	0.08	0.005	14.7
	3.1	25	0.04	0.007	18.5
	3.5	28	0.04	0.004	11.5
	3.9	13	0.01	0.003	6.8
	4.3	20	0.01	0.001	1.8
Right Bank	5.0	0	0.00	0.001	1.9

Date Monitored: April 24, 2008	Staff Gauge (m):	<b>0.090</b>			
Time (24 hr): 15:00	Pressure Transducer (m):	<b>0.055</b>			
Personnel: G.Norton, R. Larson	Discharge (m <sup>3</sup> /s):	<b>0.224</b>			
Method Velocity - area with Swoffer					
	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Notes					
Left Bank	1.25	0	0.00	0.000	0.0
	1.45	7	0.06	0.001	0.4
	1.65	13	0.09	0.002	1.0
	1.85	10	0.08	0.002	0.7
	2.05	20	0.03	0.001	0.5
	2.25	22	0.13	0.006	2.6
	2.45	36	0.14	0.010	4.5
	2.65	35	0.41	0.029	12.8
	2.85	34	0.68	0.046	20.7
	3.05	26	0.30	0.016	7.0
	3.25	20	0.44	0.018	7.9
	3.45	18	0.22	0.008	3.5
	3.65	24	0.08	0.004	1.7
	3.85	22	0.16	0.007	3.1
	4.05	31	0.09	0.006	2.5
	4.25	30	0.13	0.008	3.5
	4.45	31	0.05	0.003	1.4
	4.65	29	0.05	0.005	2.1
Right Bank	5.10	0	0.00	0.001	0.5

Date Monitored: May 24, 2008	Staff Gauge (m):	<b>0.400</b>			
Time (24 hr): 9:00	Pressure Transducer (m):	<b>0.340</b>			
Personnel: G.Norton, R. Dennis	Discharge (m <sup>3</sup> /s):	<b>1.45</b>			
Method Velocity - area with Swoffer					
	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Notes					
Left Bank	0.60	0	0.00	0.004	0.5
	0.90	61	0.16	0.016	1.9
	1.10	56	0.05	0.003	0.4
	1.30	56	0.02	0.001	0.2
	1.50	62	0.08	0.005	0.7
	1.65	47	0.61	0.023	2.9
	1.80	49	1.12	0.045	5.6
	1.95	54	1.18	0.052	6.5
	2.10	48	1.42	0.056	7.0
	2.25	54	1.24	0.055	6.8
	2.40	44	1.44	0.051	6.4
	2.55	48	1.58	0.062	7.7
	2.70	43	1.58	0.056	6.9
	2.85	45	1.70	0.063	7.8
	3.00	45	1.63	0.060	7.5
	3.15	31	1.65	0.042	5.2
	3.30	35	1.59	0.046	5.7
	3.45	39	1.35	0.043	5.4
	3.60	43	1.35	0.048	5.9
	3.75	30	0.94	0.023	2.9
	3.90	26	0.85	0.018	2.3
	4.05	38	0.70	0.022	2.7
Right Bank	4.20	0	0.00	0.010	1.2

(continued)

**Table A1-7. Manual Flow Measurements at SK-2 in 2008 (continued)**

Date Monitored: July 20, 2008	Staff Gauge (m): <b>0.380</b>
Time (24 hr): 8:35	Pressure Transducer (m): <b>0.250</b>
Personnel: C. Doughty, K. Louie	Discharge (m <sup>3</sup> /s): <b>1.02</b>
Method: Salt Dilution	
	Q (m <sup>3</sup> /s)
Single Bank (undefined)	<b>1.02</b>
<i>See Figure A1-6</i>	

Date Monitored: September 27, 2008	Staff Gauge (m): <b>0.148</b>
Time (24 hr): 8:45	Pressure Transducer (m): <b>0.122</b>
Personnel: X. Pinto, K. Louie	Discharge (m <sup>3</sup> /s): <b>0.423</b>
Method: Salt Dilution	
	Q (m <sup>3</sup> /s)
Single Bank (undefined)	0.423
<i>See Figure A1-6</i>	

Date Monitored: November 26, 2008	Staff Gauge (m): <b>0.260</b>				
Time (24 hr): 9:30	Pressure Transducer (m): <b>-</b>				
Personnel: R. Larson, O. Dennis	Discharge (m <sup>3</sup> /s): <b>0.293</b>				
Method: Velocity-Area using Flow Tracker					
	Q (m <sup>3</sup> /s)				
	% Total				
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	0.0	0	0.000	0.000	0.0
	0.5	22	0.029	0.002	0.8
	0.7	24	0.489	0.023	8.0
	0.9	21	0.493	0.021	7.1
	1.1	21	0.514	0.022	7.4
	1.3	19	0.749	0.028	9.7
	1.5	42	0.790	0.066	22.6
	1.7	42	0.485	0.041	13.9
	1.9	35	0.491	0.034	11.7
	2.1	35	0.438	0.031	10.5
	2.3	41	0.211	0.017	5.8
	2.5	40	0.100	0.008	2.7
	2.7	42	0.032	0.003	0.9
	2.9	44	-0.005	-0.001	-0.3
Left Bank	3.6	0	0.000	0.000	0.0

**Table A1-8. Manual Flow Measurements at MESS-1 in 2008**

Date Monitored: February 3, 2008		Staff Gauge (m): -			
Time (24 hr): 13:30		Pressure Transducer (m): -			
Personnel: C. Doughty, D. Day, B. Ostrich (PWH)		Discharge (m <sup>3</sup> /s): <b>1.30</b>			
Method: Velocity - area with Flowtracker					
Notes	Station (m)	Depth to Bed (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	0.5	0	0.00	0.002	0.1
	1.3	26	0.06	0.014	1.1
	2.3	46	0.13	0.061	4.7
	3.3	42	0.20	0.084	6.5
	4.3	50	0.32	0.159	12.1
	5.3	41	0.35	0.142	10.9
	6.3	39	0.36	0.141	10.8
	7.3	42	0.34	0.142	10.8
	8.3	23	0.27	0.062	4.8
	9.3	34	0.29	0.108	8.3
	10.5	36	0.30	0.119	9.1
	11.5	35	0.34	0.120	9.2
	12.5	36	0.34	0.151	11.6
Mud/Slush	14.0	24	0.00	0.000	0.0
Left Bank	14.5	0	0.00	0.000	0.0

Date Monitored: March 12, 2008		Staff Gauge (m): -			
Time (24 hr): 11:00		Pressure Transducer (m): -			
Personnel: S. Guenther, D. Day		Discharge (m <sup>3</sup> /s): <b>0.225</b>			
Method: Velocity - area with Flow Tracker					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bankk	0.0	0	0.00	0.000	0.0
	1.0	12	0.20	0.000	0.1
	2.0	23	1.20	0.002	0.7
	3.0	30	2.00	0.004	1.9
	4.0	34	6.00	0.013	5.9
	5.0	36	8.00	0.025	11.0
	6.0	35	9.00	0.030	13.4
	7.0	36	12.00	0.037	16.6
	8.0	40	7.30	0.036	16.1
	9.0	45	5.00	0.026	11.5
	10.0	50	2.00	0.016	7.2
	11.0	65	1.50	0.010	4.4
	12.0	74	2.00	0.012	5.5
	13.0	55	1.00	0.010	4.5
Left Bank	14.0	0	0.00	0.003	1.2

Date Monitored: April 24, 2008		Staff Gauge (m): -			
Time (24 hr): 16:15		Pressure Transducer (m): <b>-0.23</b>			
Personnel: G.Norton, R. Larson		Discharge (m <sup>3</sup> /s): <b>1.11</b>			
Method Velocity - area with Swoffer					
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	0.2	0	0.00	0.002	0.2
	0.6	26	0.14	0.016	1.5
	1.1	31	0.09	0.014	1.3
	1.6	36	0.16	0.029	2.6
	2.1	40	0.12	0.024	2.1
	2.6	35	0.30	0.053	4.7
	3.1	36	0.41	0.074	6.6
	3.6	33	0.41	0.068	6.1
	4.1	32	0.38	0.061	5.5
	4.6	31	0.43	0.067	6.0
	5.1	30	0.44	0.066	5.9
	5.6	32	0.43	0.068	6.1
	6.1	32	0.42	0.067	6.0
	6.6	33	0.41	0.067	6.0
	7.1	33	0.39	0.063	5.7
	7.6	33	0.39	0.063	5.7
	8.1	31	0.42	0.065	5.8
	8.6	30	0.33	0.050	4.4
	9.1	27	0.39	0.052	4.6
	9.6	24	0.28	0.034	3.0
	10.1	21	0.34	0.036	3.2
	10.6	20	0.29	0.028	2.5
	11.1	18	0.25	0.022	2.0
11.6	13	0.24	0.015	1.3	
12.1	10	0.19	0.010	0.9	
12.6	6	0.09	0.004	0.3	
Left Bank	13.4	0	0.00	0.001	0.0

(continued)

**Table A1-8. Manual Flow Measurements at MESS-1 in 2008 (completed)**

Date Monitored: May 24, 2008					
Time (24 hr): 13:00					
Personnel: G.Norton, R. Larson					
Method Velocity - area with Swoffer					
			Staff Gauge (m):	<b>0.330</b>	
			Pressure Transducer (m):	<b>0.286</b>	
			Discharge (m <sup>3</sup> /s):	<b>15.1</b>	
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	27.9	0	0.00	0.000	0.0
	27.4	9	0.00	0.000	0.0
	27.0	25	0.13	0.031	0.2
	25.5	33	0.51	0.252	1.7
	24.0	34	0.47	0.240	1.6
	22.5	18	0.42	0.113	0.7
	21.0	24	0.37	0.133	0.9
	19.5	57	0.61	0.522	3.4
	18.0	68	0.79	0.800	5.3
	16.5	68	0.93	0.949	6.3
	15.0	63	0.71	0.671	4.4
	13.5	75	0.94	1.058	7.0
	12.0	78	0.92	1.070	7.1
	10.5	78	0.94	1.100	7.3
	9.0	83	1.10	1.370	9.0
	7.5	87	1.10	1.436	9.5
	estimated depth, flow	6.0	95	1.30	1.853
estimated depth, flow	4.5	100	1.15	1.553	10.2
	3.3	98	0.99	0.724	4.8
	3.0	86	1.18	0.507	3.3
	2.3	65	1.06	0.586	3.9
	1.3	43	0.56	0.167	1.1
Left Bank	0.9	0	0.00	0.018	0.1

Date Monitored: September 24, 2008					
Time (24 hr): 14:30					
Personnel: X. Pinto, K. Louie					
Method: Velocity - area with Swoffer					
			Staff Gauge (m):	<b>0.023</b>	
			Pressure Transducer (m):	<b>-0.031</b>	
			Discharge (m <sup>3</sup> /s):	<b>5.21</b>	
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total
Right Bank	0.0	0	0.00	0.026	0.5
	0.9	53	0.44	0.210	4.0
	1.8	55	0.52	0.257	4.9
	2.7	49	0.82	0.362	6.9
	3.6	66	0.83	0.493	9.5
	4.5	60	0.78	0.421	8.1
	5.4	59	0.79	0.419	8.0
	6.3	56	0.87	0.438	8.4
	7.2	54	0.97	0.471	9.0
	8.1	52	0.74	0.346	6.6
	9.0	46	0.88	0.364	7.0
	9.9	45	0.70	0.284	5.4
	10.8	40	0.80	0.288	5.5
	11.7	35	0.64	0.202	3.9
	12.6	30	0.69	0.186	3.6
	13.5	28	0.69	0.174	3.3
	14.4	24	0.58	0.125	2.4
	15.3	18	0.52	0.084	1.6
	16.2	13	0.42	0.049	0.9
	17.1	6	0.24	0.013	0.2
Left Bank	18.0	0	0.00	0.001	0.0

Date Monitored: November 25, 2008						
Time (24 hr): 13:40						
Personnel: R. Larson, O. Dennis						
Method: Velocity-Area with Flow Tracker						
			Staff Gauge (m):	<b>0.200</b>		
			Pressure Transducer (m):	<b>-</b>		
			Discharge (m <sup>3</sup> /s):	<b>5.82</b>		
Notes	Station (m)	Depth (cm)	Velocity (m/s)	Q (m <sup>3</sup> /s)	% Total	
Right Bank (estimated)	23.2	0	0.00	0.000	0.0	
	21.8	0	0.00	0.000	0.0	
	18.3	64	-0.01	-0.023	-0.4	
	14.9	62	0.07	0.264	4.5	
	10.2	62	0.00	-0.015	-0.3	
	7.2	71	0.85	2.532	43.5	
	4.8	71	0.99	2.137	36.7	
	3.5	56	0.73	0.673	11.6	
	2.8	54	0.31	0.185	3.2	
	2.0	43	0.09	0.043	0.7	
	1.4	34	0.00	0.000	0.0	
	Left Bank	0.70	0	0.00	0.000	0.0



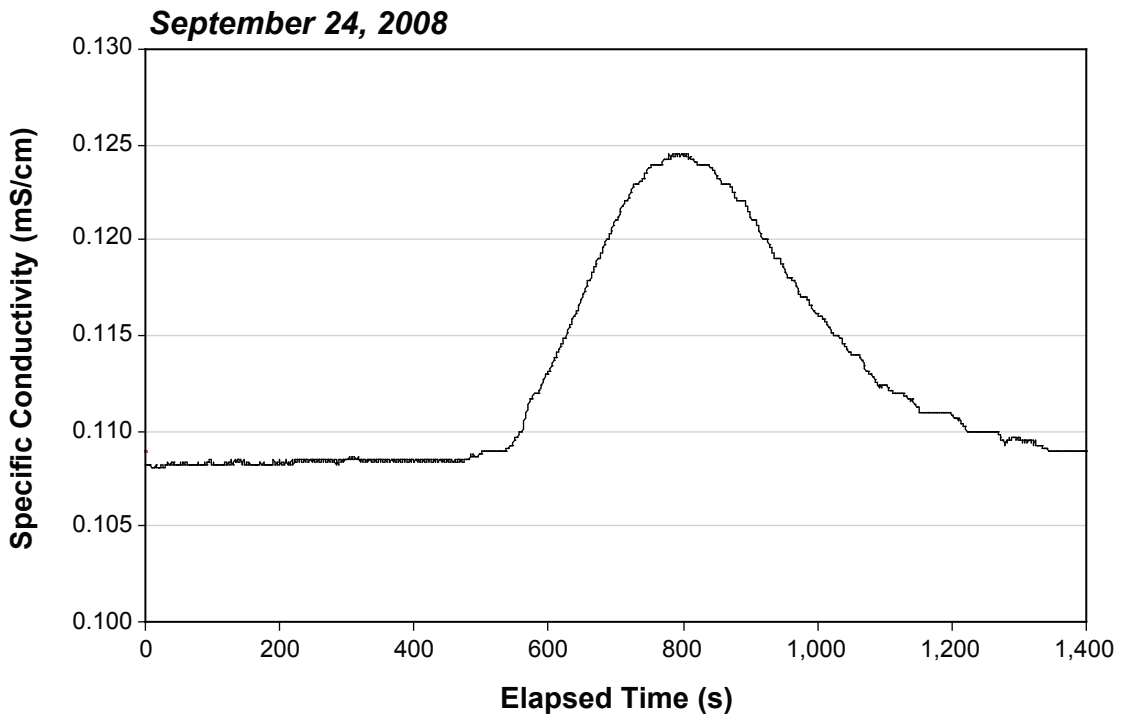
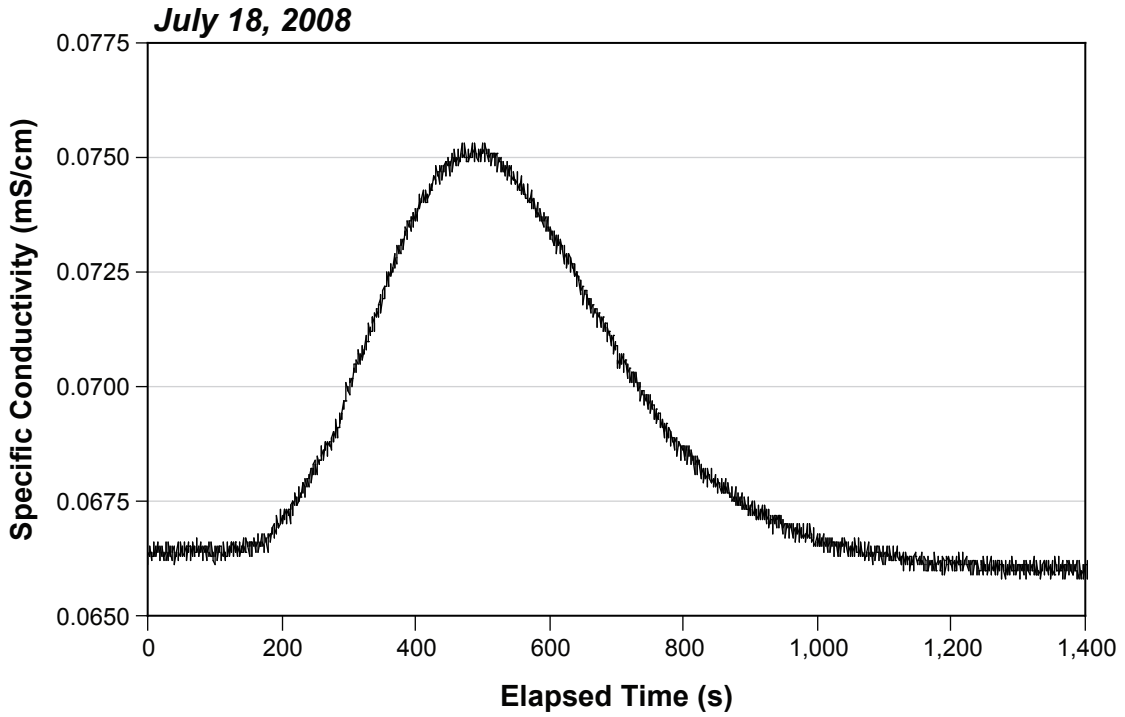


FIGURE A1-1  
**Rescan**<sup>TM</sup>



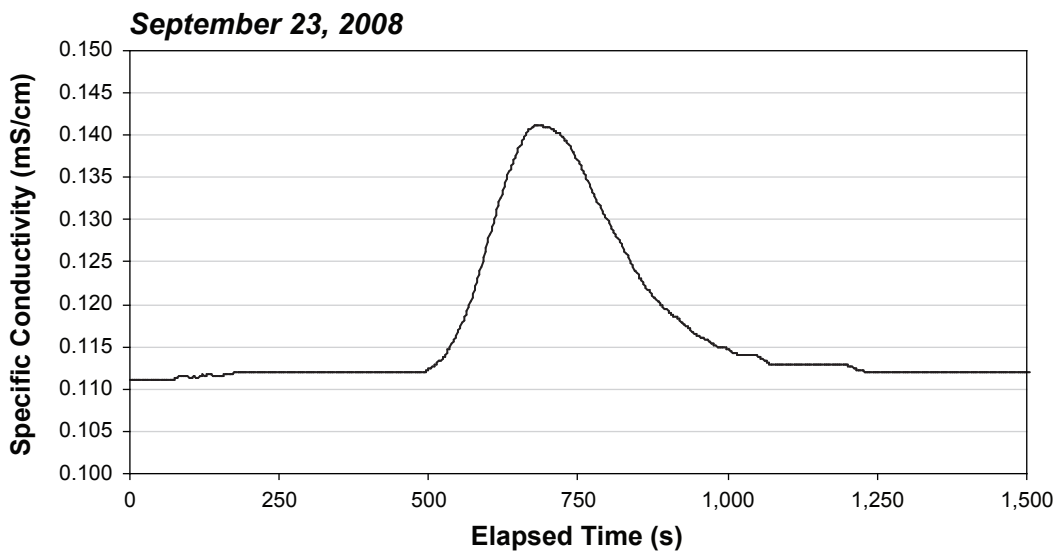
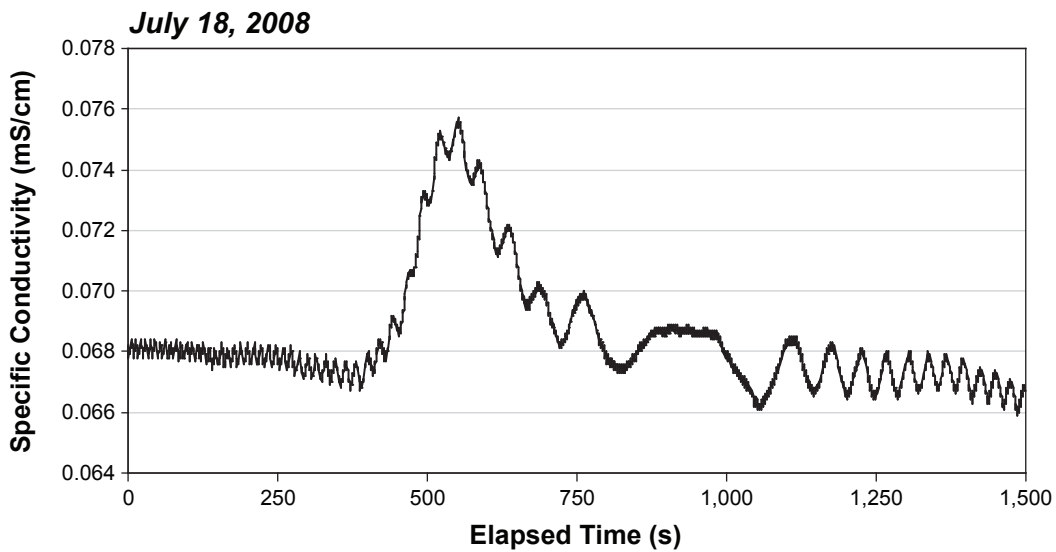
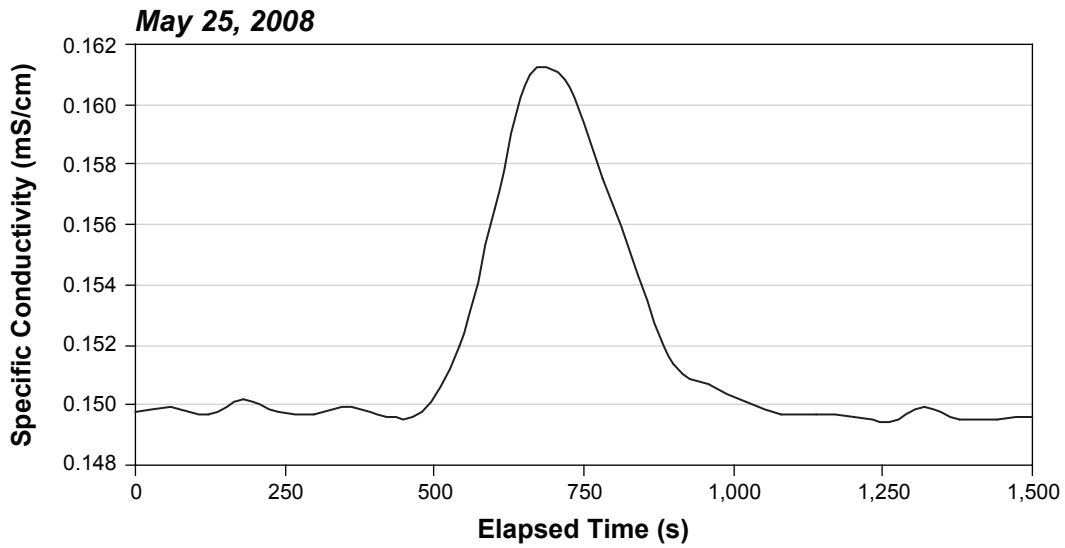


FIGURE A1-2



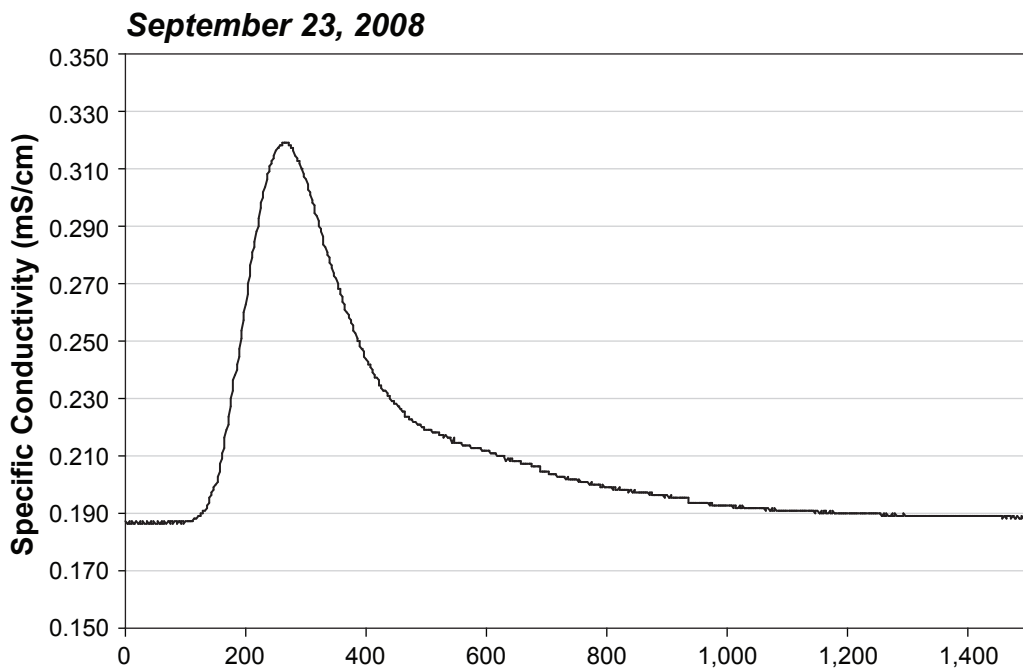
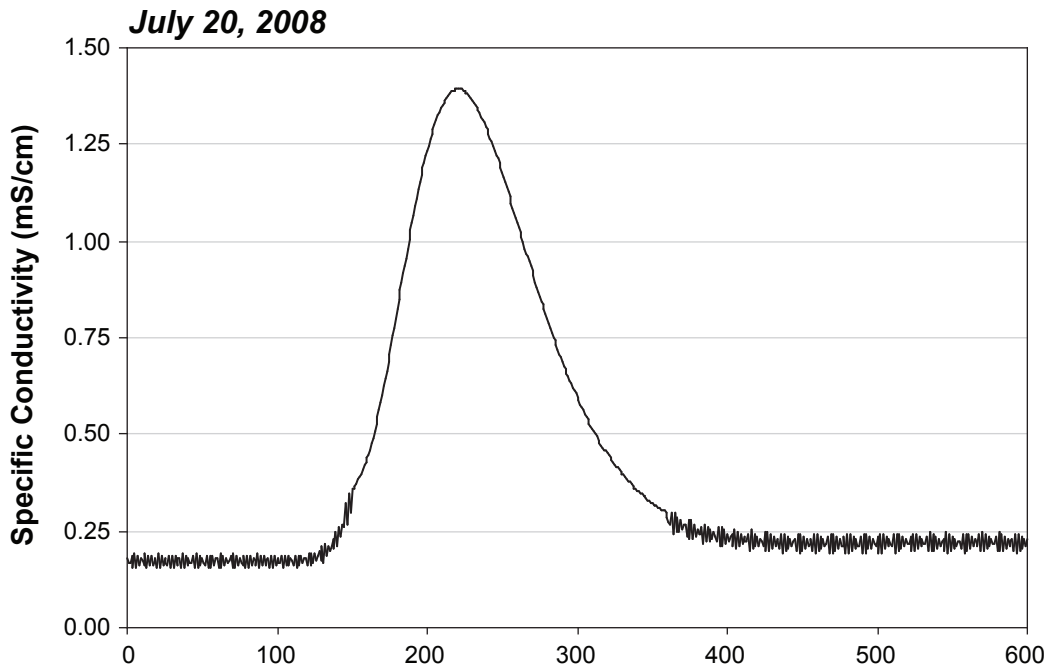


FIGURE A1-3



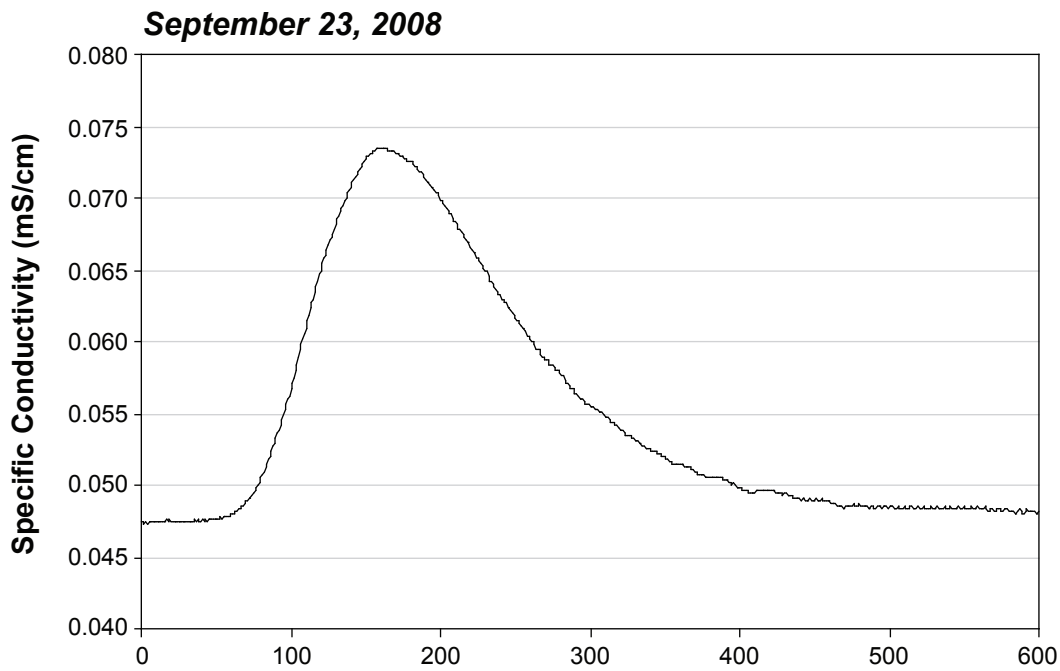
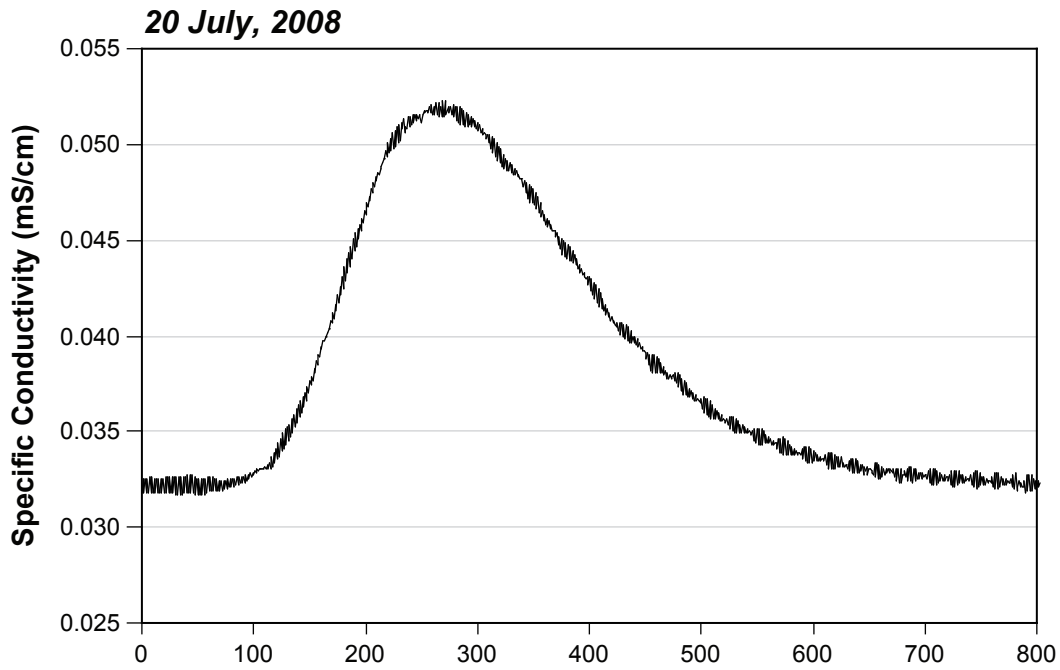


FIGURE A1-4



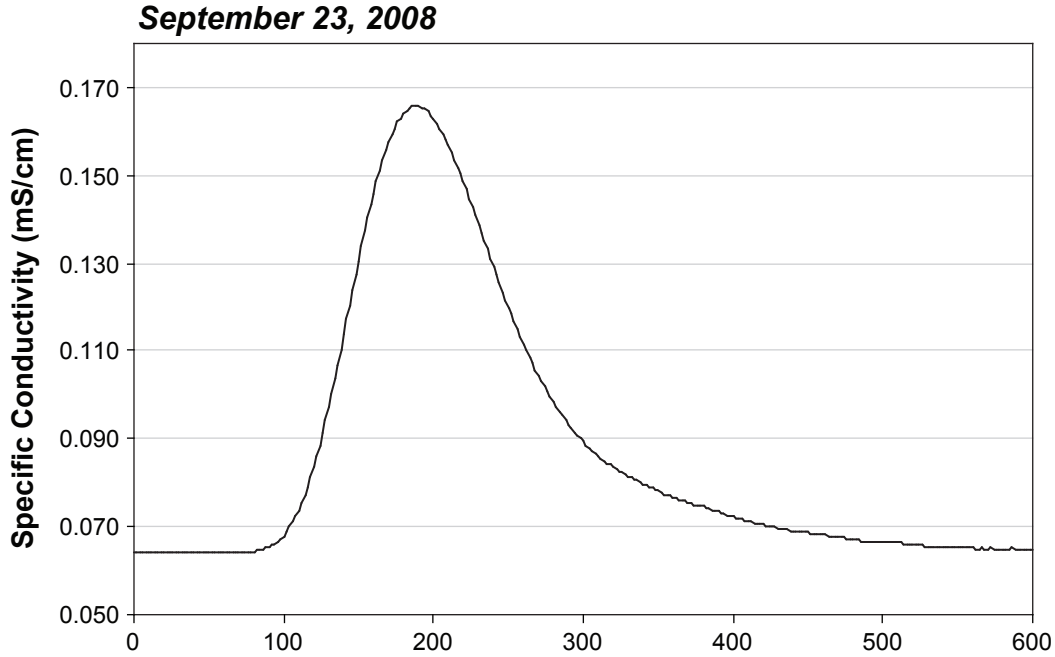
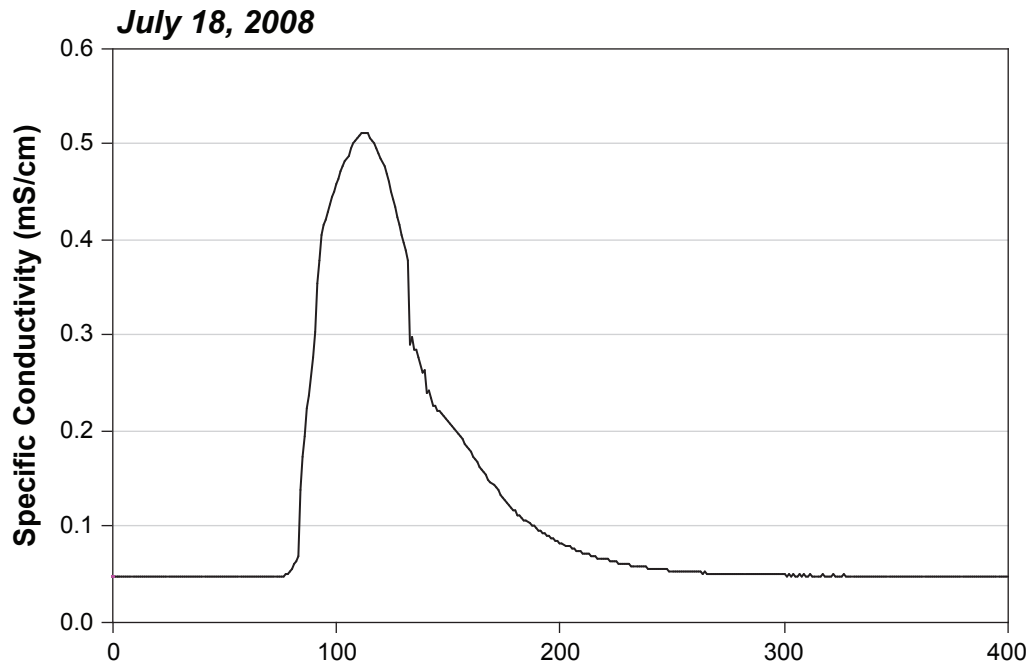


FIGURE A1-5



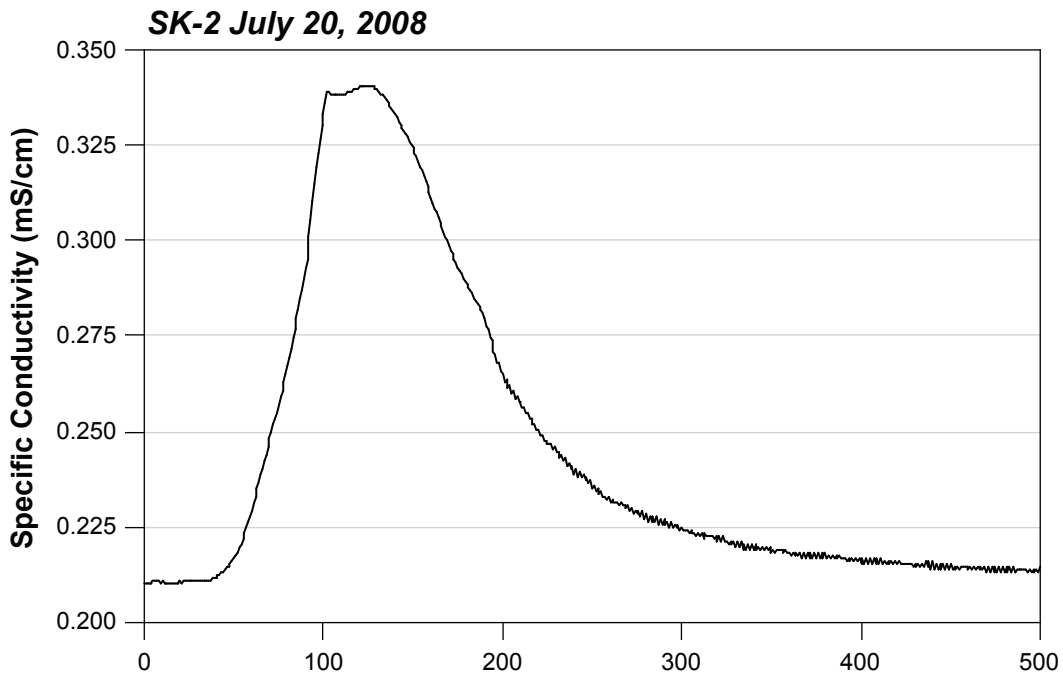
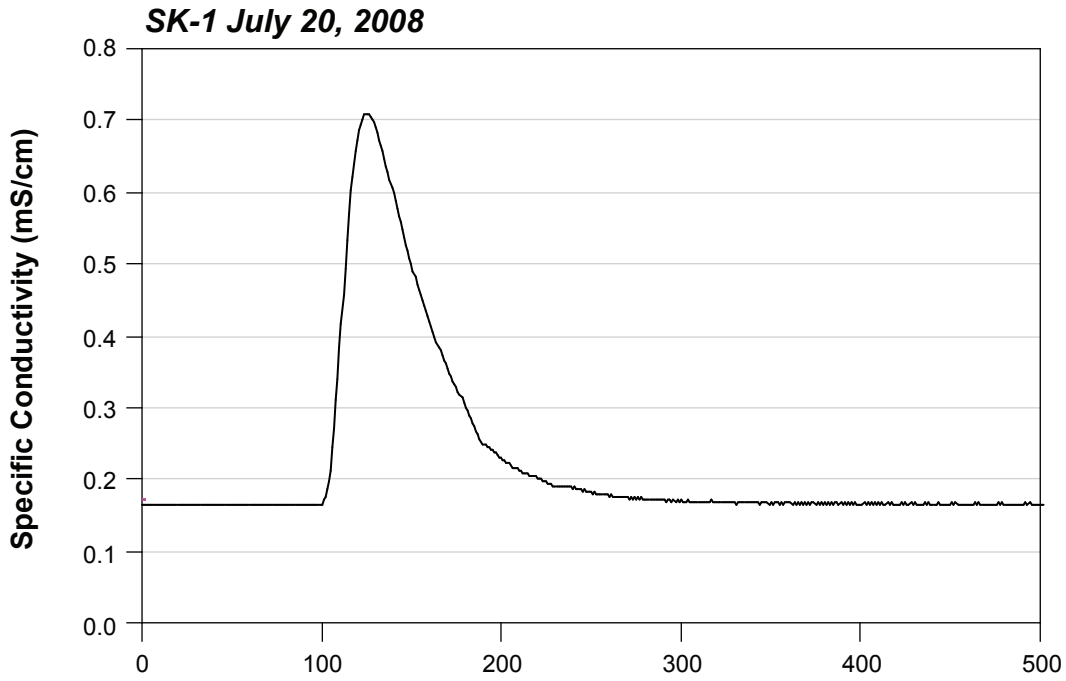


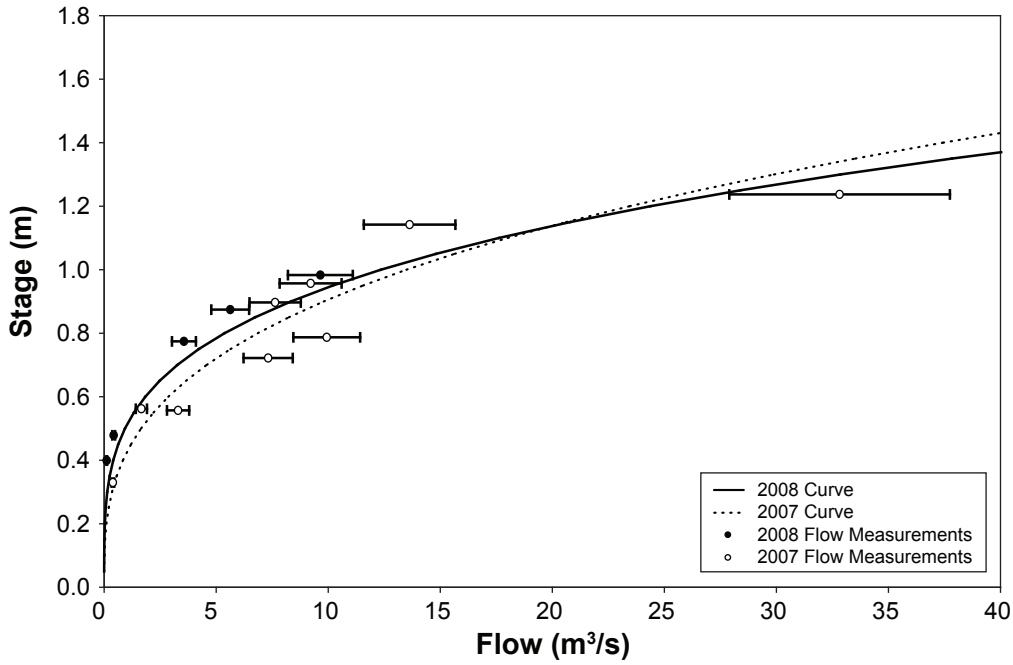
FIGURE A1-6



# **Appendix 2**

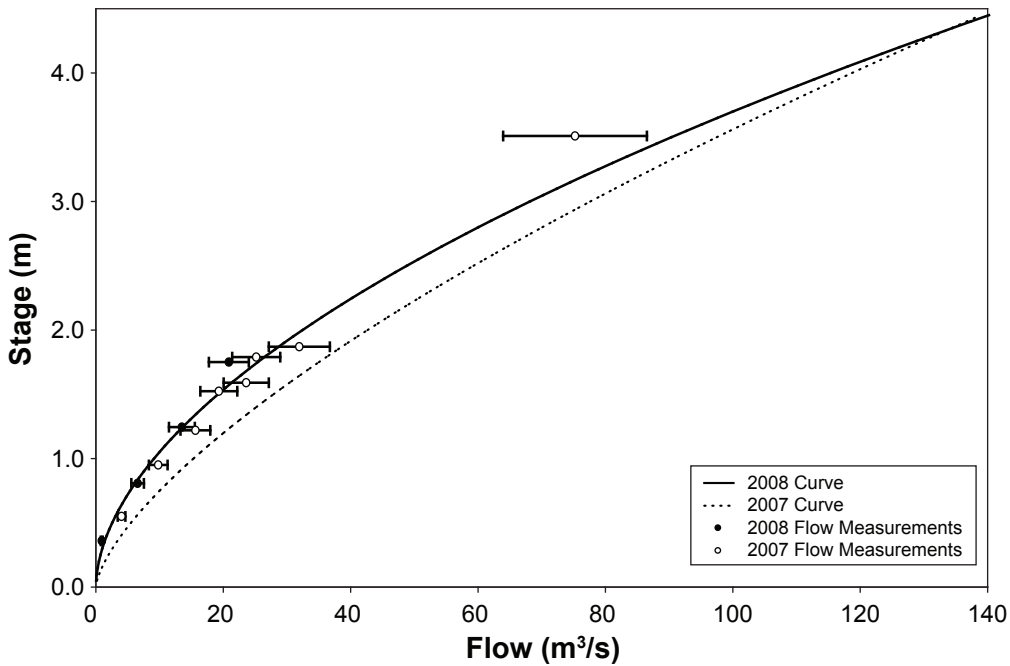
## **2008 Rating Curves**





HC-1 Stage-Discharge Curve

FIGURE A2-1

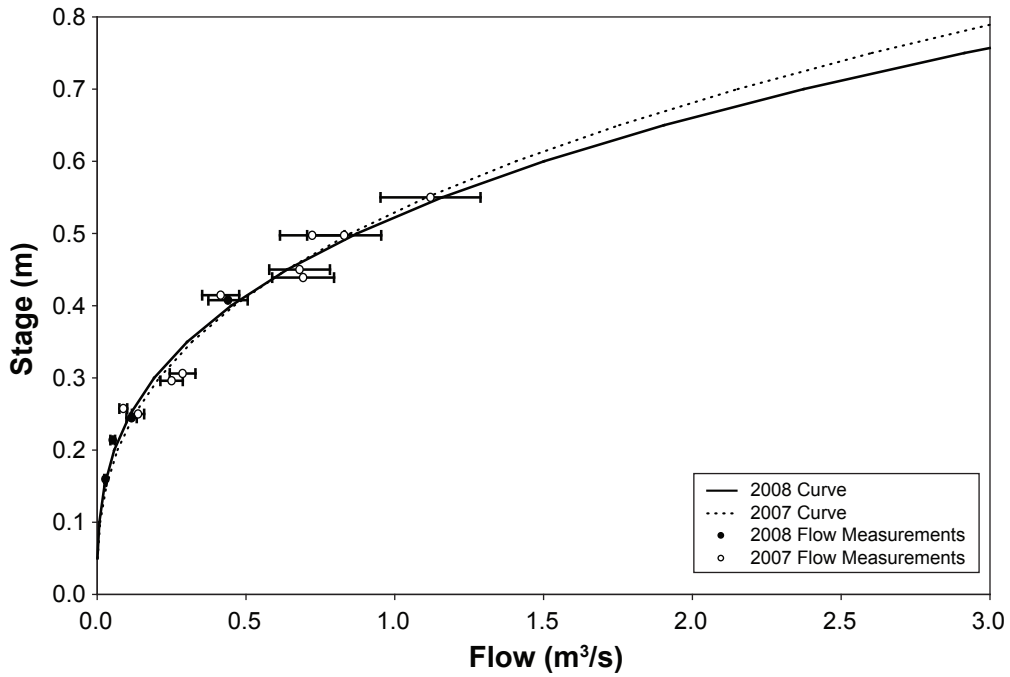


SC-2 Stage-Discharge Curve

FIGURE A2-2

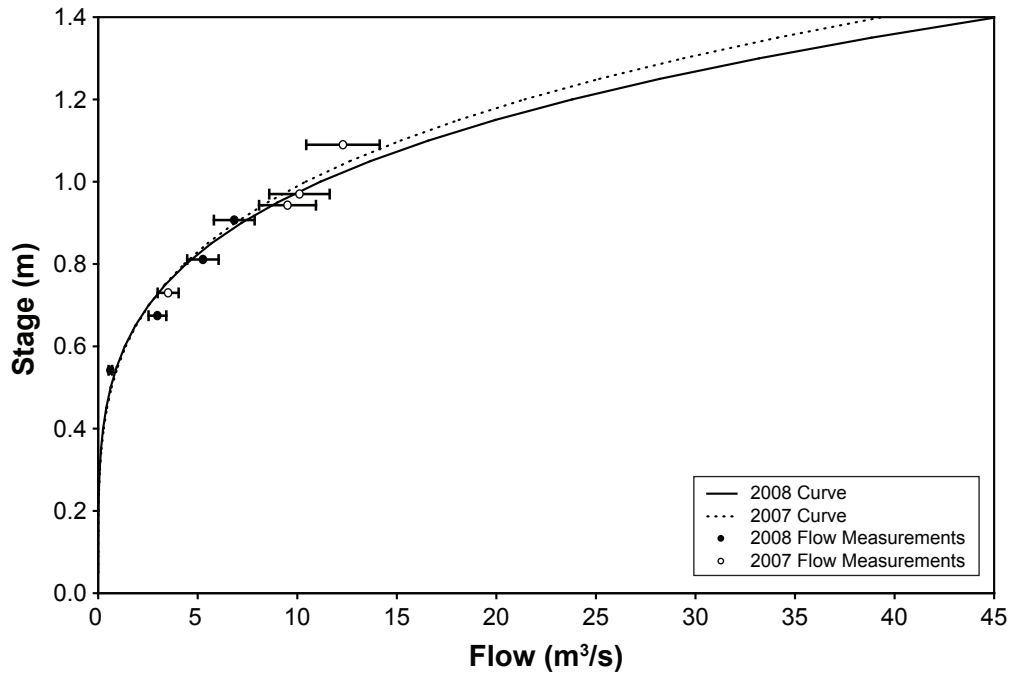
Note: In 2008, a new zero-flow offset (a) value was determined for the station.





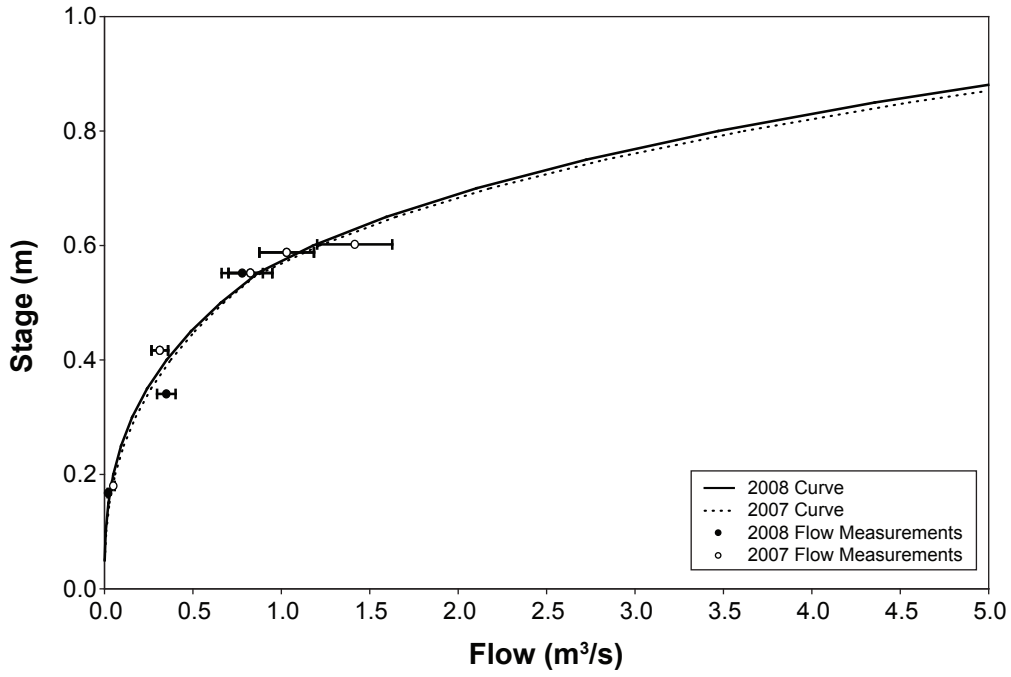
SCTR-1 Stage-Discharge Curve

FIGURE A2-3



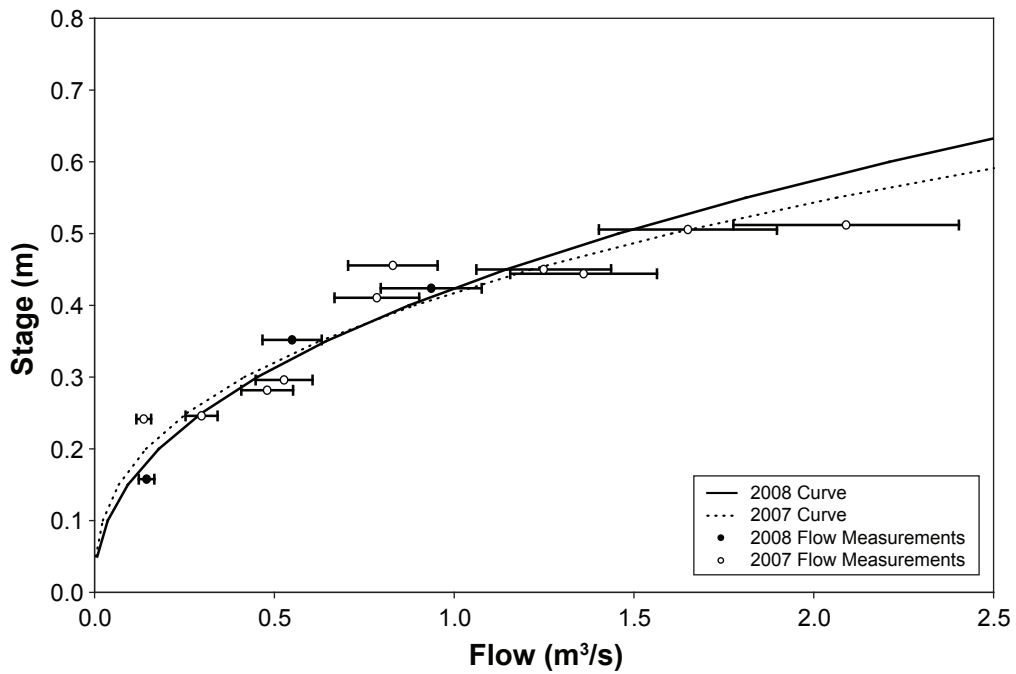
SCTR-2 Stage-Discharge Curve

FIGURE A2-4



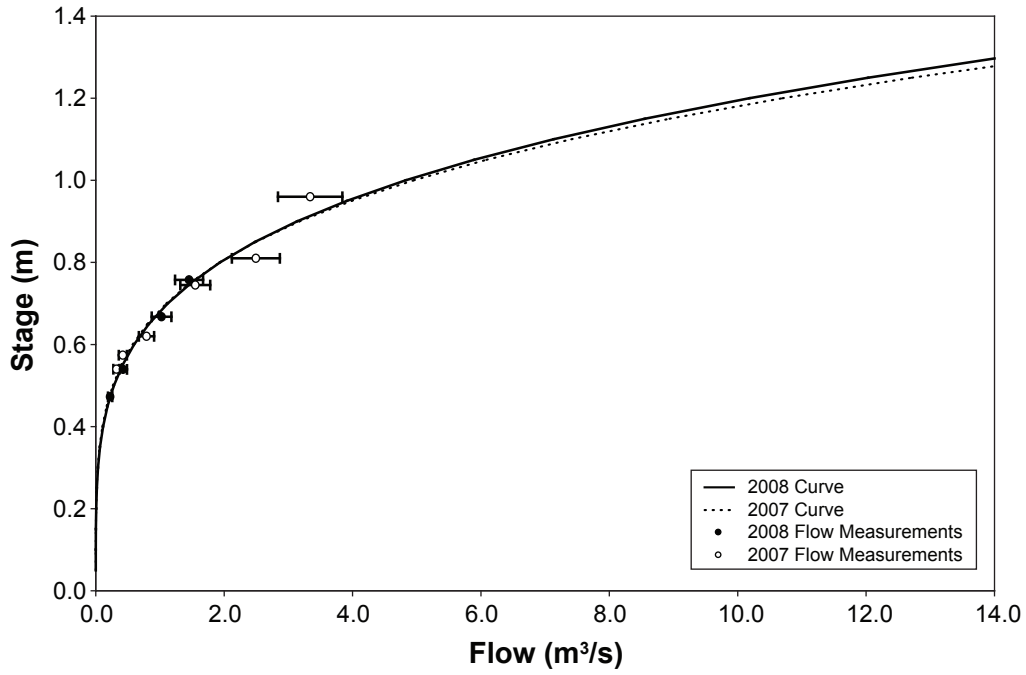
SCTR-3 Stage-Discharge Curve

FIGURE A2-5



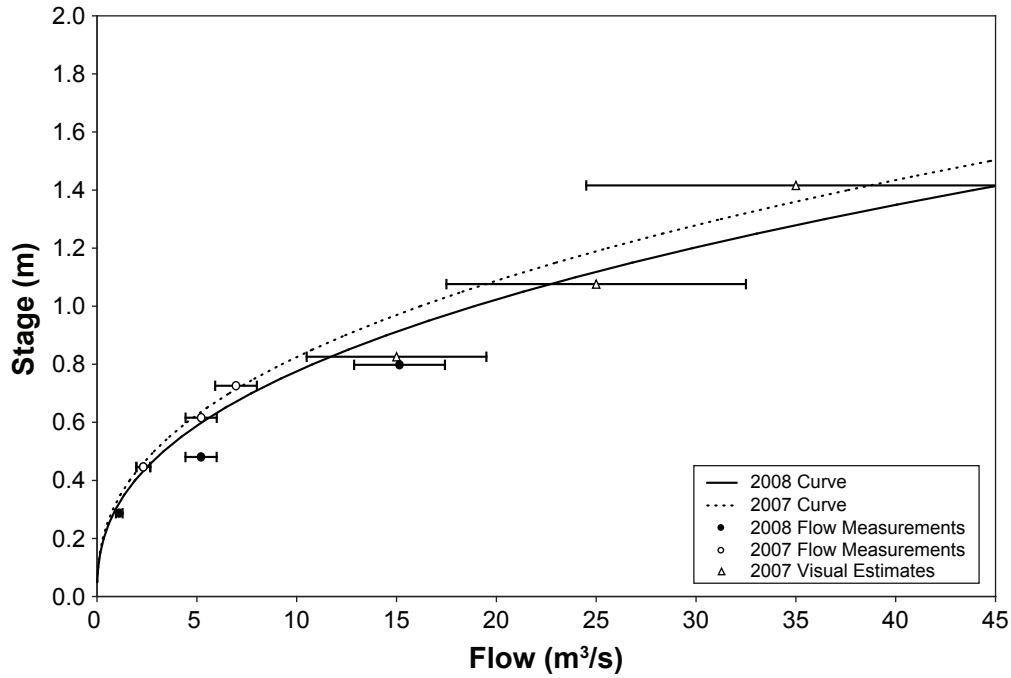
SK-1 Stage-Discharge Curve

FIGURE A2-6



SK-2 Stage-Discharge Curve

FIGURE A2-7



MESS-1 Stage-Discharge Curve

FIGURE A2-8

# **Appendix 3**

## 2008 Daily Flows



**Table A3-1. HC-1 - Summary of Daily Mean Flow (m<sup>3</sup>/s) 2008**

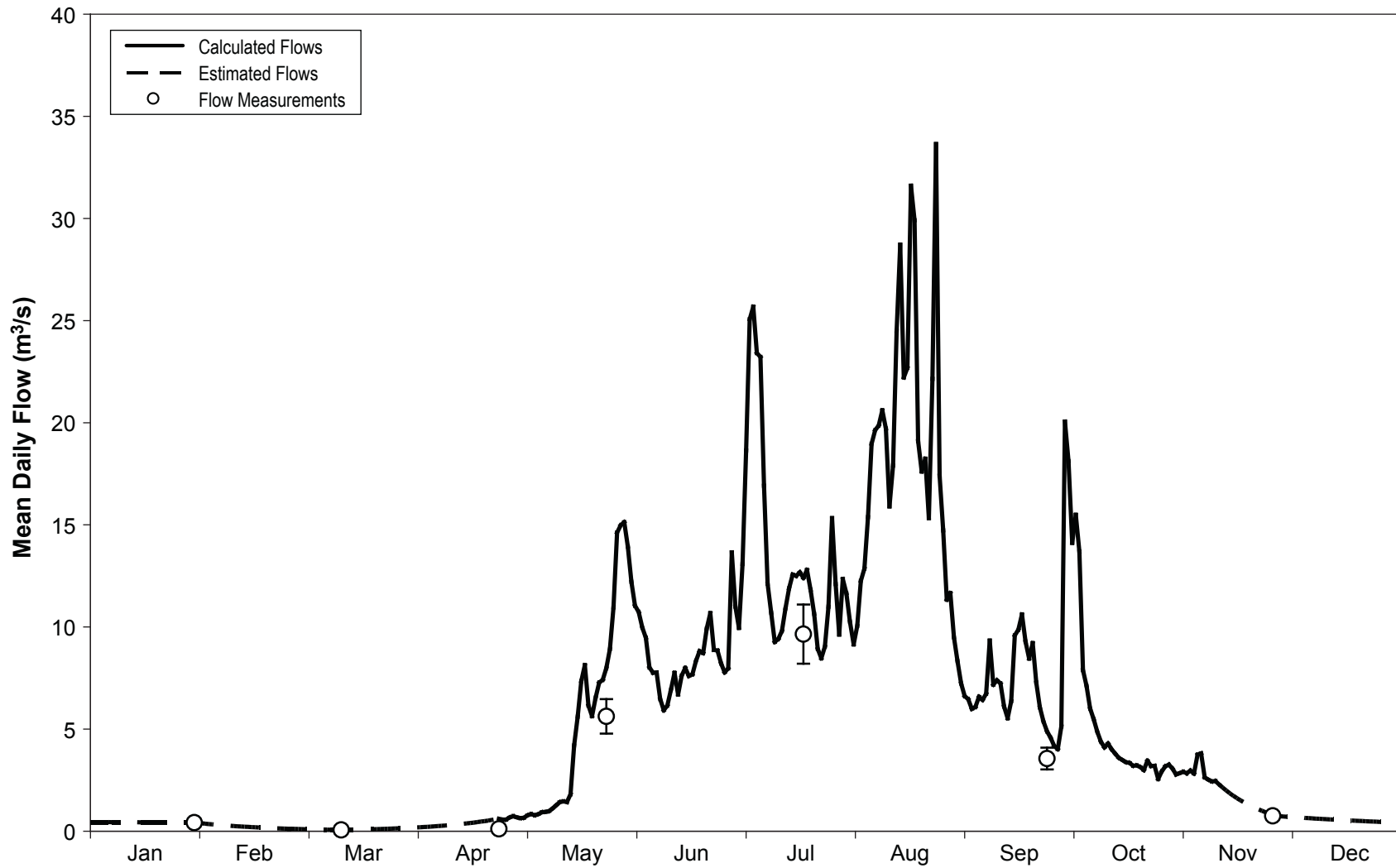
Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)
01-Jan-08	0.45	01-Mar-08	0.100	01-May-08	0.66	01-Jul-08	13.09	01-Sep-08	6.62	01-Nov-08	2.91
02-Jan-08	0.45	02-Mar-08	0.096	02-May-08	0.78	02-Jul-08	18.64	02-Sep-08	6.46	02-Nov-08	2.84
03-Jan-08	0.45	03-Mar-08	0.091	03-May-08	0.84	03-Jul-08	25.06	03-Sep-08	5.99	03-Nov-08	2.97
04-Jan-08	0.45	04-Mar-08	0.087	04-May-08	0.79	04-Jul-08	25.68	04-Sep-08	6.09	04-Nov-08	2.82
05-Jan-08	0.45	05-Mar-08	0.083	05-May-08	0.84	05-Jul-08	23.41	05-Sep-08	6.59	05-Nov-08	3.75
06-Jan-08	0.45	06-Mar-08	0.080	06-May-08	0.93	06-Jul-08	23.22	06-Sep-08	6.43	06-Nov-08	3.81
07-Jan-08	0.44	07-Mar-08	0.076	07-May-08	0.95	07-Jul-08	16.91	07-Sep-08	6.74	07-Nov-08	2.64
08-Jan-08	0.44	08-Mar-08	0.072	08-May-08	0.99	08-Jul-08	12.12	08-Sep-08	9.33	08-Nov-08	2.53
09-Jan-08	0.44	09-Mar-08	0.069	09-May-08	1.12	09-Jul-08	10.69	09-Sep-08	7.17	09-Nov-08	2.44
10-Jan-08	0.44	10-Mar-08	0.066	10-May-08	1.28	10-Jul-08	9.27	10-Sep-08	7.39	10-Nov-08	2.45
11-Jan-08	0.44	11-Mar-08	0.063	11-May-08	1.42	11-Jul-08	9.42	11-Sep-08	7.23	11-Nov-08	2.29
12-Jan-08	0.44	12-Mar-08	0.066	12-May-08	1.46	12-Jul-08	9.80	12-Sep-08	6.11	12-Nov-08	2.14
13-Jan-08	0.44	13-Mar-08	0.070	13-May-08	1.43	13-Jul-08	10.91	13-Sep-08	5.53	13-Nov-08	1.99
14-Jan-08	0.44	14-Mar-08	0.074	14-May-08	1.81	14-Jul-08	11.89	14-Sep-08	6.37	14-Nov-08	1.86
15-Jan-08	0.44	15-Mar-08	0.077	15-May-08	4.19	15-Jul-08	12.57	15-Sep-08	9.58	15-Nov-08	1.74
16-Jan-08	0.44	16-Mar-08	0.082	16-May-08	5.61	16-Jul-08	12.50	16-Sep-08	9.87	16-Nov-08	1.62
17-Jan-08	0.44	17-Mar-08	0.086	17-May-08	7.34	17-Jul-08	12.68	17-Sep-08	10.62	17-Nov-08	1.51
18-Jan-08	0.44	18-Mar-08	0.090	18-May-08	8.13	18-Jul-08	12.41	18-Sep-08	9.28	18-Nov-08	1.41
19-Jan-08	0.43	19-Mar-08	0.095	19-May-08	6.15	19-Jul-08	12.80	19-Sep-08	8.45	19-Nov-08	1.32
20-Jan-08	0.43	20-Mar-08	0.100	20-May-08	5.64	20-Jul-08	11.82	20-Sep-08	9.21	20-Nov-08	1.23
21-Jan-08	0.43	21-Mar-08	0.106	21-May-08	6.54	21-Jul-08	10.64	21-Sep-08	7.27	21-Nov-08	1.15
22-Jan-08	0.43	22-Mar-08	0.111	22-May-08	7.27	22-Jul-08	8.93	22-Sep-08	6.06	22-Nov-08	1.07
23-Jan-08	0.43	23-Mar-08	0.117	23-May-08	7.42	23-Jul-08	8.47	23-Sep-08	5.38	23-Nov-08	1.00
24-Jan-08	0.43	24-Mar-08	0.123	24-May-08	7.99	24-Jul-08	9.04	24-Sep-08	4.89	24-Nov-08	0.93
25-Jan-08	0.43	25-Mar-08	0.130	25-May-08	8.92	25-Jul-08	10.99	25-Sep-08	4.58	25-Nov-08	0.87
26-Jan-08	0.43	26-Mar-08	0.137	26-May-08	10.96	26-Jul-08	15.33	26-Sep-08	4.18	26-Nov-08	0.76 <sup>b</sup>
27-Jan-08	0.43	27-Mar-08	0.144	27-May-08	14.62	27-Jul-08	12.11	27-Sep-08	4.02	27-Nov-08	0.74
28-Jan-08	0.43	28-Mar-08	0.151	28-May-08	14.98	28-Jul-08	9.63	28-Sep-08	5.13	28-Nov-08	0.73
29-Jan-08	0.43	29-Mar-08	0.159	29-May-08	15.13	29-Jul-08	12.35	29-Sep-08	20.06	29-Nov-08	0.72
30-Jan-08	0.42	30-Mar-08	0.168	30-May-08	13.94	30-Jul-08	11.65	30-Sep-08	18.11	30-Nov-08	0.71
31-Jan-08	0.41	31-Mar-08	0.177	31-May-08	12.21	31-Jul-08	10.25	01-Oct-08	14.12	01-Dec-08	0.70
01-Feb-08	0.39	01-Apr-08	0.186	01-Jun-08	11.05	01-Aug-08	9.15	02-Oct-08	15.49	02-Dec-08	0.68
02-Feb-08	0.37	02-Apr-08	0.196	02-Jun-08	10.73	02-Aug-08	10.05	03-Oct-08	13.69	03-Dec-08	0.67
03-Feb-08	0.35	03-Apr-08	0.206	03-Jun-08	9.97	03-Aug-08	12.26	04-Oct-08	7.89	04-Dec-08	0.66
04-Feb-08	0.34	04-Apr-08	0.217	04-Jun-08	9.47	04-Aug-08	12.86	05-Oct-08	7.11	05-Dec-08	0.65
05-Feb-08	0.32	05-Apr-08	0.229	05-Jun-08	8.02	05-Aug-08	15.38	06-Oct-08	6.01	06-Dec-08	0.64
06-Feb-08	0.31	06-Apr-08	0.241	06-Jun-08	7.76	06-Aug-08	18.96	07-Oct-08	5.48	07-Dec-08	0.63
07-Feb-08	0.29	07-Apr-08	0.254	07-Jun-08	7.77	07-Aug-08	19.63	08-Oct-08	4.87	08-Dec-08	0.62
08-Feb-08	0.28	08-Apr-08	0.267	08-Jun-08	6.48	08-Aug-08	19.87	09-Oct-08	4.39	09-Dec-08	0.61
09-Feb-08	0.27	09-Apr-08	0.281	09-Jun-08	5.92	09-Aug-08	20.61	10-Oct-08	4.10	10-Dec-08	0.60
10-Feb-08	0.25	10-Apr-08	0.296	10-Jun-08	6.16	10-Aug-08	19.71	11-Oct-08	4.29	11-Dec-08	0.59
11-Feb-08	0.24	11-Apr-08	0.312	11-Jun-08	6.92	11-Aug-08	15.91	12-Oct-08	4.02	12-Dec-08	0.58
12-Feb-08	0.23	12-Apr-08	0.328	12-Jun-08	7.75	12-Aug-08	17.90	13-Oct-08	3.80	13-Dec-08	0.57
13-Feb-08	0.22	13-Apr-08	0.346	13-Jun-08	6.70	13-Aug-08	24.50	14-Oct-08	3.60	14-Dec-08	0.56
14-Feb-08	0.21	14-Apr-08	0.364	14-Jun-08	7.61	14-Aug-08	28.71	15-Oct-08	3.49	15-Dec-08	0.55
15-Feb-08	0.20	15-Apr-08	0.383	15-Jun-08	8.00	15-Aug-08	22.22	16-Oct-08	3.38	16-Dec-08	0.54
16-Feb-08	0.19	16-Apr-08	0.404	16-Jun-08	7.60	16-Aug-08	22.69	17-Oct-08	3.35	17-Dec-08	0.53
17-Feb-08	0.18	17-Apr-08	0.425	17-Jun-08	7.68	17-Aug-08	31.60	18-Oct-08	3.21	18-Dec-08	0.52
18-Feb-08	0.18	18-Apr-08	0.448	18-Jun-08	8.34	18-Aug-08	29.91	19-Oct-08	3.22	19-Dec-08	0.51
19-Feb-08	0.17	19-Apr-08	0.471	19-Jun-08	8.82	19-Aug-08	19.10	20-Oct-08	3.15	20-Dec-08	0.51
20-Feb-08	0.16	20-Apr-08	0.496	20-Jun-08	8.72	20-Aug-08	17.61	21-Oct-08	3.00	21-Dec-08	0.50
21-Feb-08	0.15	21-Apr-08	0.522	21-Jun-08	9.92	21-Aug-08	18.24	22-Oct-08	3.45	22-Dec-08	0.49
22-Feb-08	0.15	22-Apr-08	0.550	22-Jun-08	10.68	22-Aug-08	15.33	23-Oct-08	3.20	23-Dec-08	0.48
23-Feb-08	0.14	23-Apr-08	0.579	23-Jun-08	8.88	23-Aug-08	22.14	24-Oct-08	3.20	24-Dec-08	0.47
24-Feb-08	0.13	24-Apr-08	0.610 <sup>a</sup>	24-Jun-08	8.84	24-Aug-08	33.64	25-Oct-08	2.56	25-Dec-08	0.47
25-Feb-08	0.13	25-Apr-08	0.571	25-Jun-08	8.22	25-Aug-08	17.40	26-Oct-08	2.93	26-Dec-08	0.46
26-Feb-08	0.12	26-Apr-08	0.574	26-Jun-08	7.78	26-Aug-08	14.73	27-Oct-08	3.18	27-Dec-08	0.45
27-Feb-08	0.12	27-Apr-08	0.674	27-Jun-08	7.98	27-Aug-08	11.34	28-Oct-08	3.26	28-Dec-08	0.44
28-Feb-08	0.11	28-Apr-08	0.737	28-Jun-08	13.65	28-Aug-08	11.66	29-Oct-08	3.07	29-Dec-08	0.44
29-Feb-08	0.11	29-Apr-08	0.682	29-Jun-08	11.00	29-Aug-08	9.50	30-Oct-08	2.78	30-Dec-08	0.43
		30-Apr-08	0.645	30-Jun-08	9.95	30-Aug-08	8.33	31-Oct-08	2.84	31-Dec-08	0.43
						31-Aug-08	7.24				

Notes:

Estimated values are italicized

<sup>a</sup> pressure transducer was remobilized

<sup>b</sup> pressure transducer was deactivated and removed



**Table A3-2. SC-2 - Summary of Daily Mean Flow (m<sup>3</sup>/s) 2008**

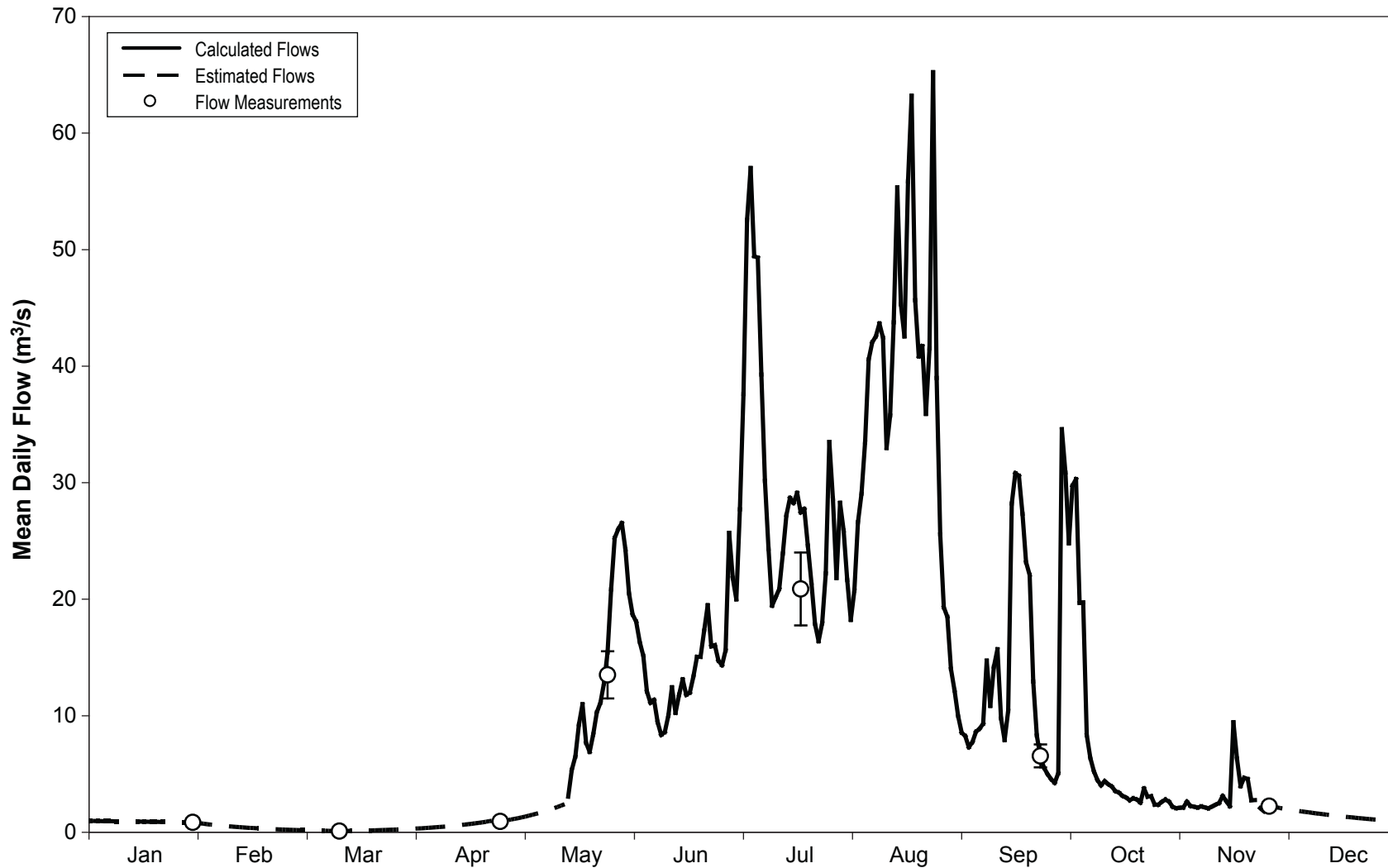
Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)
01-Jan-08	0.979	01-Mar-08	0.178	01-May-08	1.28	01-Jul-08	27.7	01-Sep-08	8.56	01-Nov-08	2.10
02-Jan-08	0.975	02-Mar-08	0.169	02-May-08	1.34	02-Jul-08	37.6	02-Sep-08	8.25	02-Nov-08	2.13
03-Jan-08	0.970	03-Mar-08	0.161	03-May-08	1.42	03-Jul-08	52.5	03-Sep-08	7.30	03-Nov-08	2.63
04-Jan-08	0.965	04-Mar-08	0.153	04-May-08	1.50	04-Jul-08	57.0	04-Sep-08	7.74	04-Nov-08	2.26
05-Jan-08	0.961	05-Mar-08	0.145	05-May-08	1.58	05-Jul-08	49.4	05-Sep-08	8.62	05-Nov-08	2.19
06-Jan-08	0.956	06-Mar-08	0.138	06-May-08	1.66	06-Jul-08	49.3	06-Sep-08	8.89	06-Nov-08	2.12
07-Jan-08	0.951	07-Mar-08	0.131	07-May-08	1.75	07-Jul-08	39.3	07-Sep-08	9.32	07-Nov-08	2.22
08-Jan-08	0.947	08-Mar-08	0.125	08-May-08	1.85	08-Jul-08	30.1	08-Sep-08	14.7	08-Nov-08	2.14
09-Jan-08	0.942	09-Mar-08	0.119	09-May-08	1.95	09-Jul-08	24.3	09-Sep-08	10.9	09-Nov-08	2.06
10-Jan-08	0.938	10-Mar-08	0.113	10-May-08	2.06	10-Jul-08	19.5	10-Sep-08	14.2	10-Nov-08	2.21
11-Jan-08	0.933	11-Mar-08	0.102	11-May-08	2.17	11-Jul-08	20.2	11-Sep-08	15.7	11-Nov-08	2.36
12-Jan-08	0.929	12-Mar-08	0.108	12-May-08	2.29	12-Jul-08	20.9	12-Sep-08	9.78	12-Nov-08	2.51
13-Jan-08	0.924	13-Mar-08	0.113	13-May-08	2.41	13-Jul-08	23.9	13-Sep-08	7.92	13-Nov-08	3.11
14-Jan-08	0.920	14-Mar-08	0.120	14-May-08	3.06	14-Jul-08	27.2	14-Sep-08	10.4	14-Nov-08	2.67
15-Jan-08	0.916	15-Mar-08	0.126	15-May-08	5.35	15-Jul-08	28.7	15-Sep-08	28.2	15-Nov-08	2.24
16-Jan-08	0.911	16-Mar-08	0.133	16-May-08	6.50	16-Jul-08	28.3	16-Sep-08	30.8	16-Nov-08	9.44
17-Jan-08	0.907	17-Mar-08	0.140	17-May-08	9.25	17-Jul-08	29.1	17-Sep-08	30.6	17-Nov-08	6.31
18-Jan-08	0.902	18-Mar-08	0.148	18-May-08	11.0	18-Jul-08	27.5	18-Sep-08	27.3	18-Nov-08	3.96
19-Jan-08	0.898	19-Mar-08	0.156	19-May-08	7.67	19-Jul-08	27.7	19-Sep-08	23.2	19-Nov-08	4.67
20-Jan-08	0.894	20-Mar-08	0.165	20-May-08	6.91	20-Jul-08	24.6	20-Sep-08	22.1	20-Nov-08	4.57
21-Jan-08	0.890	21-Mar-08	0.174	21-May-08	8.40	21-Jul-08	21.4	21-Sep-08	12.9	21-Nov-08	2.76
22-Jan-08	0.885	22-Mar-08	0.183	22-May-08	10.3	22-Jul-08	17.9	22-Sep-08	8.31	22-Nov-08	2.76
23-Jan-08	0.881	23-Mar-08	0.193	23-May-08	11.1	23-Jul-08	16.4	23-Sep-08	6.47	23-Nov-08	2.19
24-Jan-08	0.877	24-Mar-08	0.203	24-May-08	12.8	24-Jul-08	17.9	24-Sep-08	5.55	24-Nov-08	1.92
25-Jan-08	0.873	25-Mar-08	0.215	25-May-08	15.4	25-Jul-08	22.2	25-Sep-08	4.99	25-Nov-08	1.69
26-Jan-08	0.868	26-Mar-08	0.226	26-May-08	20.9	26-Jul-08	33.5	26-Sep-08	4.56	26-Nov-08	2.24 <sup>b</sup>
27-Jan-08	0.864	27-Mar-08	0.239	27-May-08	25.3	27-Jul-08	28.6	27-Sep-08	4.25	27-Nov-08	2.18
28-Jan-08	0.860	28-Mar-08	0.252	28-May-08	26.0	28-Jul-08	21.8	28-Sep-08	5.07	28-Nov-08	2.13
29-Jan-08	0.856	29-Mar-08	0.265	29-May-08	26.5	29-Jul-08	28.3	29-Sep-08	34.6	29-Nov-08	2.08
30-Jan-08	0.856	30-Mar-08	0.280	30-May-08	24.3	30-Jul-08	25.9	30-Sep-08	30.9	30-Nov-08	2.03
31-Jan-08	0.814	31-Mar-08	0.295	31-May-08	20.5	31-Jul-08	21.7	01-Oct-08	24.8	01-Dec-08	1.98
01-Feb-08	0.774	01-Apr-08	0.311	01-Jun-08	18.7	01-Aug-08	18.2	02-Oct-08	29.7	02-Dec-08	1.93
02-Feb-08	0.735	02-Apr-08	0.328	02-Jun-08	18.1	02-Aug-08	20.7	03-Oct-08	30.3	03-Dec-08	1.89
03-Feb-08	0.699	03-Apr-08	0.346	03-Jun-08	16.3	03-Aug-08	26.6	04-Oct-08	19.7	04-Dec-08	1.84
04-Feb-08	0.665	04-Apr-08	0.365	04-Jun-08	15.1	04-Aug-08	29.1	05-Oct-08	19.7	05-Dec-08	1.80
05-Feb-08	0.632	05-Apr-08	0.385	05-Jun-08	12.1	05-Aug-08	33.5	06-Oct-08	8.34	06-Dec-08	1.76
06-Feb-08	0.601	06-Apr-08	0.406	06-Jun-08	11.1	06-Aug-08	40.6	07-Oct-08	6.38	07-Dec-08	1.71
07-Feb-08	0.571	07-Apr-08	0.428	07-Jun-08	11.4	07-Aug-08	42.0	08-Oct-08	5.23	08-Dec-08	1.67
08-Feb-08	0.543	08-Apr-08	0.452	08-Jun-08	9.45	08-Aug-08	42.6	09-Oct-08	4.48	09-Dec-08	1.63
09-Feb-08	0.516	09-Apr-08	0.476	09-Jun-08	8.36	09-Aug-08	43.7	10-Oct-08	4.03	10-Dec-08	1.59
10-Feb-08	0.490	10-Apr-08	0.502	10-Jun-08	8.60	10-Aug-08	42.4	11-Oct-08	4.39	11-Dec-08	1.55
11-Feb-08	0.466	11-Apr-08	0.530	11-Jun-08	10.0	11-Aug-08	33.0	12-Oct-08	4.13	12-Dec-08	1.52
12-Feb-08	0.443	12-Apr-08	0.559	12-Jun-08	12.4	12-Aug-08	35.8	13-Oct-08	3.92	13-Dec-08	1.48
13-Feb-08	0.421	13-Apr-08	0.589	13-Jun-08	10.2	13-Aug-08	43.8	14-Oct-08	3.53	14-Dec-08	1.45
14-Feb-08	0.400	14-Apr-08	0.621	14-Jun-08	11.8	14-Aug-08	55.3	15-Oct-08	3.39	15-Dec-08	1.41
15-Feb-08	0.381	15-Apr-08	0.655	15-Jun-08	13.1	15-Aug-08	45.3	16-Oct-08	3.13	16-Dec-08	1.38
16-Feb-08	0.362	16-Apr-08	0.691	16-Jun-08	11.8	16-Aug-08	42.6	17-Oct-08	2.98	17-Dec-08	1.34
17-Feb-08	0.344	17-Apr-08	0.729	17-Jun-08	12.0	17-Aug-08	55.9	18-Oct-08	2.76	18-Dec-08	1.31
18-Feb-08	0.327	18-Apr-08	0.768	18-Jun-08	13.4	18-Aug-08	63.2	19-Oct-08	2.91	19-Dec-08	1.28
19-Feb-08	0.311	19-Apr-08	0.810	19-Jun-08	15.1	19-Aug-08	45.7	20-Oct-08	2.81	20-Dec-08	1.25
20-Feb-08	0.295	20-Apr-08	0.855	20-Jun-08	15.1	20-Aug-08	40.8	21-Oct-08	2.54	21-Dec-08	1.22
21-Feb-08	0.281	21-Apr-08	0.901	21-Jun-08	17.3	21-Aug-08	41.7	22-Oct-08	3.77	22-Dec-08	1.19
22-Feb-08	0.267	22-Apr-08	0.950	22-Jun-08	19.5	22-Aug-08	35.9	23-Oct-08	3.06	23-Dec-08	1.16
23-Feb-08	0.254	23-Apr-08	1.00	23-Jun-08	16.0	23-Aug-08	41.5	24-Oct-08	3.09	24-Dec-08	1.13
24-Feb-08	0.241	24-Apr-08	1.06	24-Jun-08	16.1	24-Aug-08	65.2	25-Oct-08	2.38	25-Dec-08	1.11
25-Feb-08	0.229	25-Apr-08	0.927 <sup>a</sup>	25-Jun-08	14.7	25-Aug-08	39.0	26-Oct-08	2.37	26-Dec-08	1.08
26-Feb-08	0.218	26-Apr-08	0.978	26-Jun-08	14.3	26-Aug-08	25.6	27-Oct-08	2.62	27-Dec-08	1.05
27-Feb-08	0.207	27-Apr-08	1.03	27-Jun-08	15.6	27-Aug-08	19.3	28-Oct-08	2.81	28-Dec-08	1.03
28-Feb-08	0.197	28-Apr-08	1.09	28-Jun-08	25.7	28-Aug-08	18.5	29-Oct-08	2.63	29-Dec-08	1.00
29-Feb-08	0.187	29-Apr-08	1.15	29-Jun-08	21.8	29-Aug-08	14.0	30-Oct-08	2.20	30-Dec-08	0.98
		30-Apr-08	1.21	30-Jun-08	20.0	30-Aug-08	12.2	31-Oct-08	2.07	31-Dec-08	0.98
						31-Aug-08	9.98				

Notes:

Estimated values are italicized

<sup>a</sup> pressure transducer was remobilized

<sup>b</sup> pressure transducer was deactivated and removed





**Table A3-3. SCTR-1 - Summary of Daily Mean Flow (m<sup>3</sup>/s) 2008**

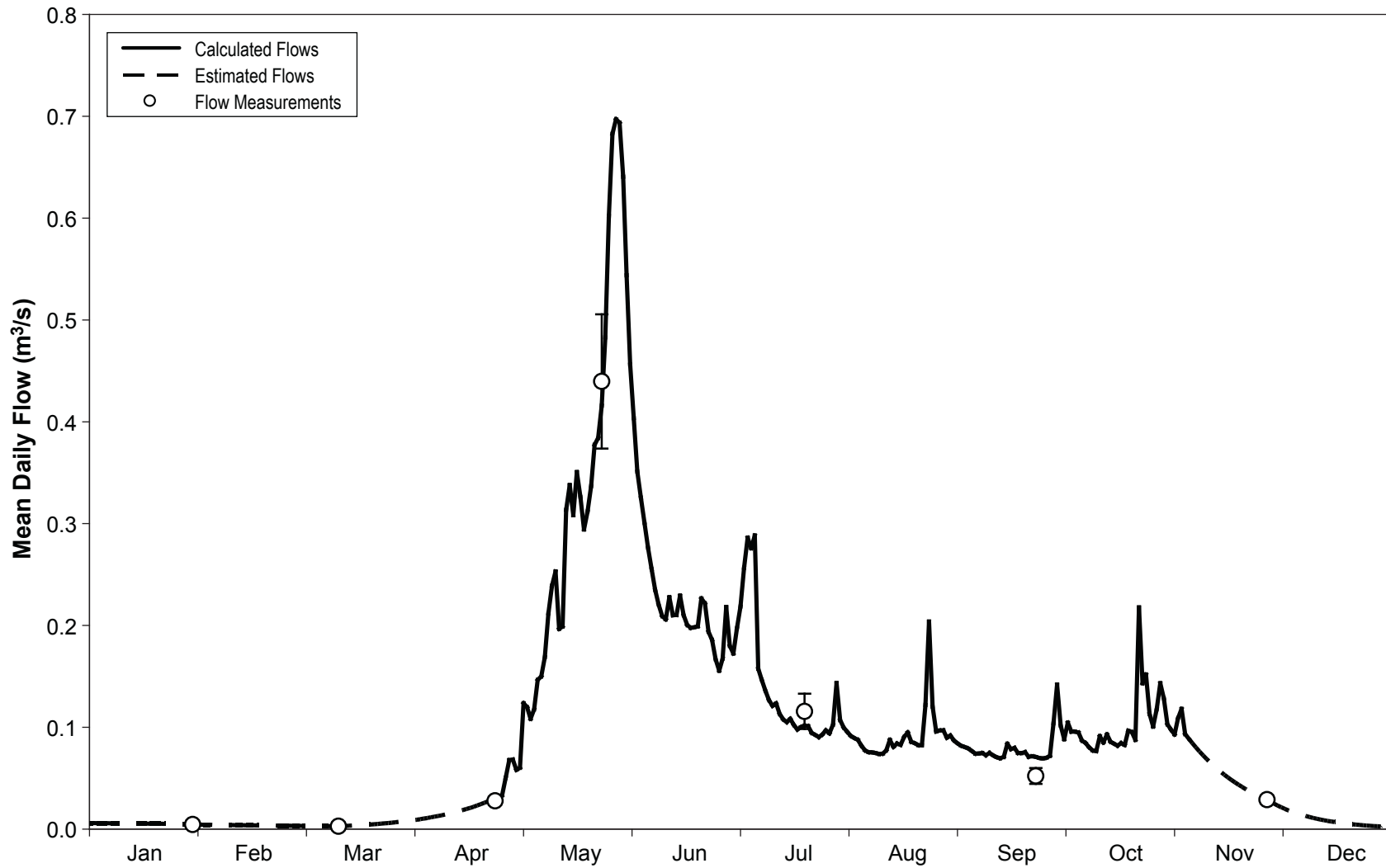
Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)
01-Jan-08	0.006	01-Mar-08	0.003	01-May-08	0.060	01-Jul-08	0.197	01-Sep-08	0.084	01-Nov-08	0.093
02-Jan-08	0.006	02-Mar-08	0.003	02-May-08	0.124	02-Jul-08	0.219	02-Sep-08	0.082	02-Nov-08	0.109
03-Jan-08	0.006	03-Mar-08	0.003	03-May-08	0.120	03-Jul-08	0.257	03-Sep-08	0.081	03-Nov-08	0.118
04-Jan-08	0.006	04-Mar-08	0.003	04-May-08	0.108	04-Jul-08	0.286	04-Sep-08	0.079	04-Nov-08	0.093
05-Jan-08	0.006	05-Mar-08	0.003	05-May-08	0.118	05-Jul-08	0.276	05-Sep-08	0.077	05-Nov-08	0.089
06-Jan-08	0.006	06-Mar-08	0.003	06-May-08	0.147	06-Jul-08	0.288	06-Sep-08	0.074	06-Nov-08	0.084
07-Jan-08	0.006	07-Mar-08	0.003	07-May-08	0.150	07-Jul-08	0.158	07-Sep-08	0.074	07-Nov-08	0.080
08-Jan-08	0.006	08-Mar-08	0.003	08-May-08	0.169	08-Jul-08	0.146	08-Sep-08	0.075	08-Nov-08	0.076
09-Jan-08	0.006	09-Mar-08	0.003	09-May-08	0.212	09-Jul-08	0.136	09-Sep-08	0.073	09-Nov-08	0.072
10-Jan-08	0.006	10-Mar-08	0.003	10-May-08	0.239	10-Jul-08	0.127	10-Sep-08	0.075	10-Nov-08	0.069
11-Jan-08	0.006	11-Mar-08	0.003	11-May-08	0.253	11-Jul-08	0.121	11-Sep-08	0.072	11-Nov-08	0.065
12-Jan-08	0.006	12-Mar-08	0.003	12-May-08	0.197	12-Jul-08	0.124	12-Sep-08	0.071	12-Nov-08	0.062
13-Jan-08	0.006	13-Mar-08	0.003	13-May-08	0.199	13-Jul-08	0.113	13-Sep-08	0.070	13-Nov-08	0.059
14-Jan-08	0.006	14-Mar-08	0.003	14-May-08	0.313	14-Jul-08	0.108	14-Sep-08	0.071	14-Nov-08	0.056
15-Jan-08	0.005	15-Mar-08	0.004	15-May-08	0.338	15-Jul-08	0.105	15-Sep-08	0.084	15-Nov-08	0.053
16-Jan-08	0.005	16-Mar-08	0.004	16-May-08	0.308	16-Jul-08	0.108	16-Sep-08	0.079	16-Nov-08	0.051
17-Jan-08	0.005	17-Mar-08	0.004	17-May-08	0.351	17-Jul-08	0.102	17-Sep-08	0.080	17-Nov-08	0.048
18-Jan-08	0.005	18-Mar-08	0.004	18-May-08	0.326	18-Jul-08	0.098	18-Sep-08	0.075	18-Nov-08	0.046
19-Jan-08	0.005	19-Mar-08	0.004	19-May-08	0.294	19-Jul-08	0.100	19-Sep-08	0.075	19-Nov-08	0.044
20-Jan-08	0.005	20-Mar-08	0.005	20-May-08	0.312	20-Jul-08	0.102	20-Sep-08	0.076	20-Nov-08	0.041
21-Jan-08	0.005	21-Mar-08	0.005	21-May-08	0.337	21-Jul-08	0.101	21-Sep-08	0.071	21-Nov-08	0.039
22-Jan-08	0.005	22-Mar-08	0.005	22-May-08	0.377	22-Jul-08	0.095	22-Sep-08	0.072	22-Nov-08	0.037
23-Jan-08	0.005	23-Mar-08	0.005	23-May-08	0.384	23-Jul-08	0.093	23-Sep-08	0.071	23-Nov-08	0.036
24-Jan-08	0.005	24-Mar-08	0.006	24-May-08	0.416	24-Jul-08	0.090	24-Sep-08	0.070	24-Nov-08	0.034
25-Jan-08	0.005	25-Mar-08	0.006	25-May-08	0.483	25-Jul-08	0.093	25-Sep-08	0.069	25-Nov-08	0.032
26-Jan-08	0.005	26-Mar-08	0.006	26-May-08	0.602	26-Jul-08	0.097	26-Sep-08	0.070	26-Nov-08	0.029
27-Jan-08	0.005	27-Mar-08	0.007	27-May-08	0.683	27-Jul-08	0.094	27-Sep-08	0.072	27-Nov-08	0.029 <sup>b</sup>
28-Jan-08	0.005	28-Mar-08	0.007	28-May-08	0.697	28-Jul-08	0.103	28-Sep-08	0.104	28-Nov-08	0.027
29-Jan-08	0.005	29-Mar-08	0.007	29-May-08	0.694	29-Jul-08	0.143	29-Sep-08	0.142	29-Nov-08	0.025
30-Jan-08	0.005	30-Mar-08	0.008	30-May-08	0.641	30-Jul-08	0.107	30-Sep-08	0.102	30-Nov-08	0.023
31-Jan-08	0.004	31-Mar-08	0.008	31-May-08	0.544	31-Jul-08	0.100	01-Oct-08	0.088	01-Dec-08	0.021
01-Feb-08	0.004	01-Apr-08	0.009	01-Jun-08	0.456	01-Aug-08	0.096	02-Oct-08	0.105	02-Dec-08	0.020
02-Feb-08	0.004	02-Apr-08	0.009	02-Jun-08	0.404	02-Aug-08	0.092	03-Oct-08	0.096	03-Dec-08	0.018
03-Feb-08	0.004	03-Apr-08	0.010	03-Jun-08	0.351	03-Aug-08	0.090	04-Oct-08	0.096	04-Dec-08	0.017
04-Feb-08	0.004	04-Apr-08	0.010	04-Jun-08	0.325	04-Aug-08	0.088	05-Oct-08	0.095	05-Dec-08	0.016
05-Feb-08	0.004	05-Apr-08	0.011	05-Jun-08	0.301	05-Aug-08	0.082	06-Oct-08	0.087	06-Dec-08	0.015
06-Feb-08	0.004	06-Apr-08	0.012	06-Jun-08	0.276	06-Aug-08	0.077	07-Oct-08	0.085	07-Dec-08	0.014
07-Feb-08	0.004	07-Apr-08	0.012	07-Jun-08	0.255	07-Aug-08	0.076	08-Oct-08	0.080	08-Dec-08	0.013
08-Feb-08	0.004	08-Apr-08	0.013	08-Jun-08	0.235	08-Aug-08	0.075	09-Oct-08	0.077	09-Dec-08	0.012
09-Feb-08	0.004	09-Apr-08	0.014	09-Jun-08	0.221	09-Aug-08	0.075	10-Oct-08	0.077	10-Dec-08	0.011
10-Feb-08	0.004	10-Apr-08	0.014	10-Jun-08	0.209	10-Aug-08	0.074	11-Oct-08	0.091	11-Dec-08	0.010
11-Feb-08	0.004	11-Apr-08	0.015	11-Jun-08	0.206	11-Aug-08	0.074	12-Oct-08	0.085	12-Dec-08	0.009
12-Feb-08	0.004	12-Apr-08	0.016	12-Jun-08	0.228	12-Aug-08	0.077	13-Oct-08	0.093	13-Dec-08	0.009
13-Feb-08	0.004	13-Apr-08	0.017	13-Jun-08	0.210	13-Aug-08	0.088	14-Oct-08	0.086	14-Dec-08	0.008
14-Feb-08	0.004	14-Apr-08	0.018	14-Jun-08	0.210	14-Aug-08	0.081	15-Oct-08	0.084	15-Dec-08	0.008
15-Feb-08	0.004	15-Apr-08	0.019	15-Jun-08	0.229	15-Aug-08	0.084	16-Oct-08	0.082	16-Dec-08	0.007
16-Feb-08	0.004	16-Apr-08	0.020	16-Jun-08	0.210	16-Aug-08	0.083	17-Oct-08	0.084	17-Dec-08	0.006
17-Feb-08	0.004	17-Apr-08	0.021	17-Jun-08	0.201	17-Aug-08	0.091	18-Oct-08	0.083	18-Dec-08	0.006
18-Feb-08	0.004	18-Apr-08	0.022	18-Jun-08	0.198	18-Aug-08	0.095	19-Oct-08	0.097	19-Dec-08	0.006
19-Feb-08	0.004	19-Apr-08	0.023	19-Jun-08	0.198	19-Aug-08	0.086	20-Oct-08	0.095	20-Dec-08	0.005
20-Feb-08	0.004	20-Apr-08	0.024	20-Jun-08	0.199	20-Aug-08	0.084	21-Oct-08	0.088	21-Dec-08	0.005
21-Feb-08	0.004	21-Apr-08	0.026	21-Jun-08	0.227	21-Aug-08	0.083	22-Oct-08	0.218	22-Dec-08	0.004
22-Feb-08	0.003	22-Apr-08	0.027	22-Jun-08	0.222	22-Aug-08	0.082	23-Oct-08	0.143	23-Dec-08	0.004
23-Feb-08	0.003	23-Apr-08	0.029	23-Jun-08	0.194	23-Aug-08	0.122	24-Oct-08	0.152	24-Dec-08	0.004
24-Feb-08	0.003	24-Apr-08	0.030 <sup>a</sup>	24-Jun-08	0.186	24-Aug-08	0.204	25-Oct-08	0.113	25-Dec-08	0.004
25-Feb-08	0.003	25-Apr-08	0.032	25-Jun-08	0.167	25-Aug-08	0.120	26-Oct-08	0.101	26-Dec-08	0.003
26-Feb-08	0.003	26-Apr-08	0.033	26-Jun-08	0.156	26-Aug-08	0.096	27-Oct-08	0.118	27-Dec-08	0.003
27-Feb-08	0.003	27-Apr-08	0.050	27-Jun-08	0.168	27-Aug-08	0.097	28-Oct-08	0.143	28-Dec-08	0.003
28-Feb-08	0.003	28-Apr-08	0.068	28-Jun-08	0.218	28-Aug-08	0.097	29-Oct-08	0.128	29-Dec-08	0.003
29-Feb-08	0.003	29-Apr-08	0.068	29-Jun-08	0.180	29-Aug-08	0.090	30-Oct-08	0.103	30-Dec-08	0.003
		30-Apr-08	0.058	30-Jun-08	0.172	30-Aug-08	0.092	31-Oct-08	0.098	31-Dec-08	0.006
						31-Aug-08	0.087				

**Notes:**

Estimated values are italicized

<sup>a</sup> pressure transducer was remobilized

<sup>b</sup> pressure transducer was deactivated and removed



**Table A3-4. SCTR-2 - Summary of Daily Mean Flow (m<sup>3</sup>/s) 2008**

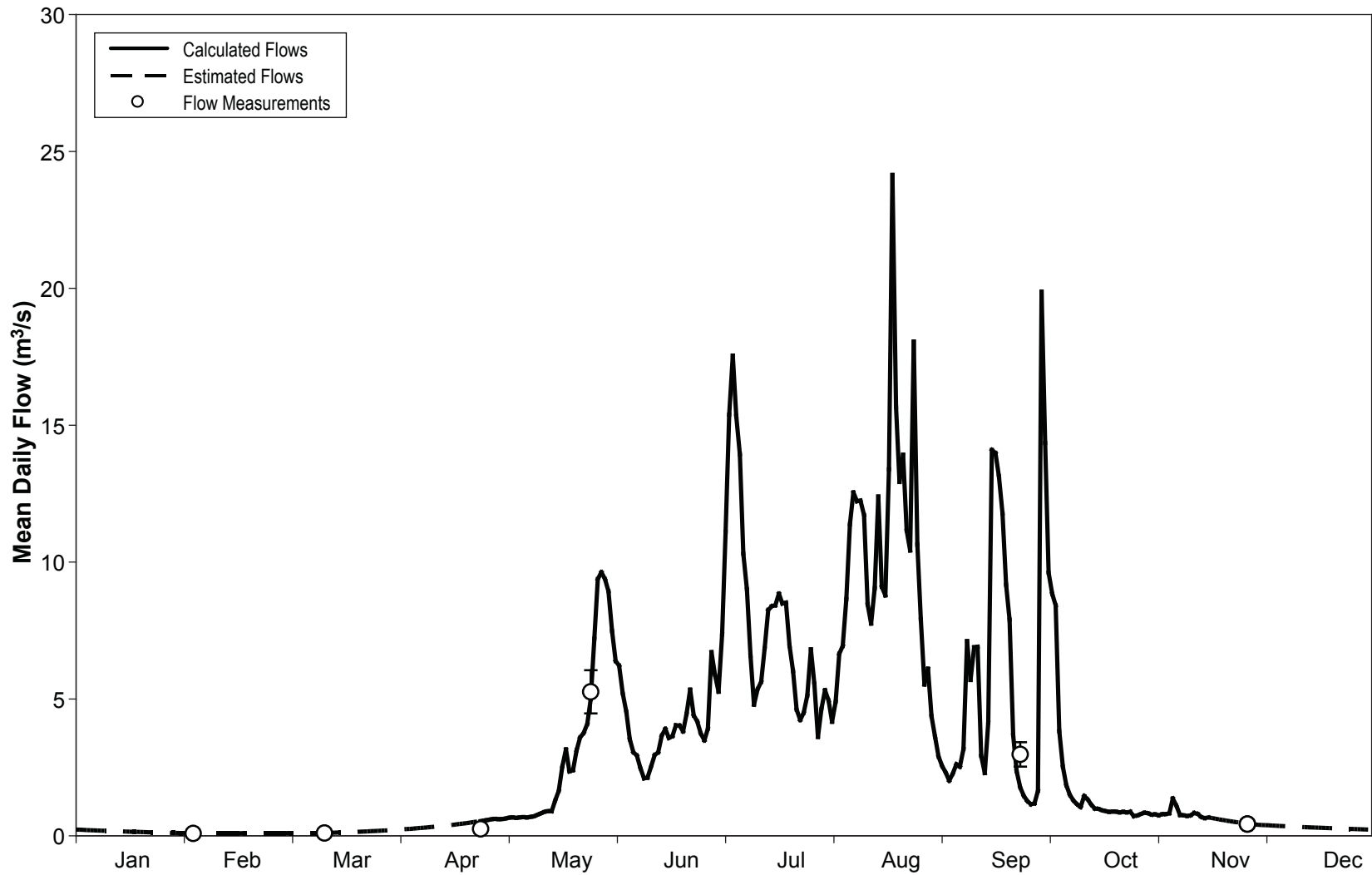
Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)
01-Jan-08	0.230	01-Mar-08	0.100	01-May-08	0.633	01-Jul-08	7.37	01-Sep-08	2.55	01-Nov-08	0.749
02-Jan-08	0.224	02-Mar-08	0.101	02-May-08	0.665	02-Jul-08	11.1	02-Sep-08	2.31	02-Nov-08	0.788
03-Jan-08	0.218	03-Mar-08	0.101	03-May-08	0.670	03-Jul-08	15.4	03-Sep-08	2.02	03-Nov-08	0.794
04-Jan-08	0.212	04-Mar-08	0.101	04-May-08	0.658	04-Jul-08	17.5	04-Sep-08	2.27	04-Nov-08	0.824
05-Jan-08	0.206	05-Mar-08	0.102	05-May-08	0.672	05-Jul-08	15.3	05-Sep-08	2.61	05-Nov-08	1.362
06-Jan-08	0.200	06-Mar-08	0.102	06-May-08	0.680	06-Jul-08	13.9	06-Sep-08	2.52	06-Nov-08	1.097
07-Jan-08	0.195	07-Mar-08	0.103	07-May-08	0.673	07-Jul-08	10.3	07-Sep-08	3.17	07-Nov-08	0.762
08-Jan-08	0.190	08-Mar-08	0.103	08-May-08	0.690	08-Jul-08	9.00	08-Sep-08	7.11	08-Nov-08	0.749
09-Jan-08	0.184	09-Mar-08	0.103	09-May-08	0.718	09-Jul-08	6.57	09-Sep-08	5.69	09-Nov-08	0.724
10-Jan-08	0.179	10-Mar-08	0.104	10-May-08	0.769	10-Jul-08	4.79	10-Sep-08	6.89	10-Nov-08	0.749
11-Jan-08	0.175	11-Mar-08	0.104	11-May-08	0.825	11-Jul-08	5.35	11-Sep-08	6.91	11-Nov-08	0.835
12-Jan-08	0.170	12-Mar-08	0.108	12-May-08	0.877	12-Jul-08	5.63	12-Sep-08	2.92	12-Nov-08	0.799
13-Jan-08	0.165	13-Mar-08	0.112	13-May-08	0.902	13-Jul-08	6.84	13-Sep-08	2.29	13-Nov-08	0.693
14-Jan-08	0.161	14-Mar-08	0.117	14-May-08	0.903	14-Jul-08	8.25	14-Sep-08	4.14	14-Nov-08	0.648
15-Jan-08	0.156	15-Mar-08	0.121	15-May-08	1.30	15-Jul-08	8.39	15-Sep-08	14.1	15-Nov-08	0.673
16-Jan-08	0.152	16-Mar-08	0.126	16-May-08	1.65	16-Jul-08	8.42	16-Sep-08	14.0	16-Nov-08	0.648
17-Jan-08	0.148	17-Mar-08	0.130	17-May-08	2.54	17-Jul-08	8.84	17-Sep-08	13.1	17-Nov-08	0.624
18-Jan-08	0.144	18-Mar-08	0.135	18-May-08	3.16	18-Jul-08	8.48	18-Sep-08	11.8	18-Nov-08	0.601
19-Jan-08	0.140	19-Mar-08	0.140	19-May-08	2.35	19-Jul-08	8.52	19-Sep-08	9.17	19-Nov-08	0.578
20-Jan-08	0.136	20-Mar-08	0.146	20-May-08	2.40	20-Jul-08	6.94	20-Sep-08	7.90	20-Nov-08	0.557
21-Jan-08	0.132	21-Mar-08	0.151	21-May-08	3.13	21-Jul-08	6.02	21-Sep-08	3.68	21-Nov-08	0.536
22-Jan-08	0.129	22-Mar-08	0.157	22-May-08	3.59	22-Jul-08	4.61	22-Sep-08	2.36	22-Nov-08	0.516
23-Jan-08	0.125	23-Mar-08	0.163	23-May-08	3.76	23-Jul-08	4.23	23-Sep-08	1.77	23-Nov-08	0.497
24-Jan-08	0.122	24-Mar-08	0.169	24-May-08	4.08	24-Jul-08	4.50	24-Sep-08	1.46	24-Nov-08	0.478
25-Jan-08	0.119	25-Mar-08	0.176	25-May-08	5.00	25-Jul-08	5.12	25-Sep-08	1.27	25-Nov-08	0.460
26-Jan-08	0.115	26-Mar-08	0.183	26-May-08	7.20	26-Jul-08	6.81	26-Sep-08	1.16	26-Nov-08	0.427
27-Jan-08	0.112	27-Mar-08	0.189	27-May-08	9.38	27-Jul-08	5.55	27-Sep-08	1.18	27-Nov-08	0.419
28-Jan-08	0.109	28-Mar-08	0.197	28-May-08	9.63	28-Jul-08	3.61	28-Sep-08	1.65	28-Nov-08	0.411
29-Jan-08	0.106	29-Mar-08	0.204	29-May-08	9.38	29-Jul-08	4.63	29-Sep-08	19.9	29-Nov-08	0.404
30-Jan-08	0.103	30-Mar-08	0.212	30-May-08	8.94	30-Jul-08	5.32	30-Sep-08	14.4	30-Nov-08	0.397
31-Jan-08	0.101	31-Mar-08	0.220	31-May-08	7.48	31-Jul-08	4.94	01-Oct-08	9.61	01-Dec-08	0.390
01-Feb-08	0.098	01-Apr-08	0.228	01-Jun-08	6.38	01-Aug-08	4.17	02-Oct-08	8.84	02-Dec-08	0.383
02-Feb-08	0.095	02-Apr-08	0.237	02-Jun-08	6.21	02-Aug-08	4.91	03-Oct-08	8.42	03-Dec-08	0.376
03-Feb-08	0.090	03-Apr-08	0.246	03-Jun-08	5.21	03-Aug-08	6.65	04-Oct-08	3.83	04-Dec-08	0.369
04-Feb-08	0.090	04-Apr-08	0.256	04-Jun-08	4.53	04-Aug-08	6.93	05-Oct-08	2.52	05-Dec-08	0.362
05-Feb-08	0.091	05-Apr-08	0.265	05-Jun-08	3.53	05-Aug-08	8.65	06-Oct-08	1.85	06-Dec-08	0.356
06-Feb-08	0.091	06-Apr-08	0.275	06-Jun-08	3.05	06-Aug-08	11.4	07-Oct-08	1.49	07-Dec-08	0.349
07-Feb-08	0.091	07-Apr-08	0.286	07-Jun-08	2.93	07-Aug-08	12.5	08-Oct-08	1.28	08-Dec-08	0.343
08-Feb-08	0.092	08-Apr-08	0.297	08-Jun-08	2.47	08-Aug-08	12.2	09-Oct-08	1.15	09-Dec-08	0.337
09-Feb-08	0.092	09-Apr-08	0.308	09-Jun-08	2.10	09-Aug-08	12.2	10-Oct-08	1.05	10-Dec-08	0.331
10-Feb-08	0.093	10-Apr-08	0.320	10-Jun-08	2.13	10-Aug-08	11.7	11-Oct-08	1.45	11-Dec-08	0.325
11-Feb-08	0.093	11-Apr-08	0.332	11-Jun-08	2.53	11-Aug-08	8.45	12-Oct-08	1.33	12-Dec-08	0.319
12-Feb-08	0.093	12-Apr-08	0.345	12-Jun-08	2.95	12-Aug-08	7.75	13-Oct-08	1.14	13-Dec-08	0.313
13-Feb-08	0.094	13-Apr-08	0.358	13-Jun-08	3.05	13-Aug-08	9.05	14-Oct-08	1.00	14-Dec-08	0.308
14-Feb-08	0.094	14-Apr-08	0.372	14-Jun-08	3.66	14-Aug-08	12.4	15-Oct-08	0.98	15-Dec-08	0.302
15-Feb-08	0.094	15-Apr-08	0.386	15-Jun-08	3.91	15-Aug-08	9.10	16-Oct-08	0.94	16-Dec-08	0.297
16-Feb-08	0.095	16-Apr-08	0.400	16-Jun-08	3.58	16-Aug-08	8.78	17-Oct-08	0.91	17-Dec-08	0.291
17-Feb-08	0.095	17-Apr-08	0.416	17-Jun-08	3.64	17-Aug-08	13.4	18-Oct-08	0.88	18-Dec-08	0.286
18-Feb-08	0.096	18-Apr-08	0.431	18-Jun-08	4.04	18-Aug-08	24.1	19-Oct-08	0.89	19-Dec-08	0.281
19-Feb-08	0.096	19-Apr-08	0.448	19-Jun-08	4.03	19-Aug-08	15.7	20-Oct-08	0.88	20-Dec-08	0.276
20-Feb-08	0.096	20-Apr-08	0.465	20-Jun-08	3.81	20-Aug-08	12.9	21-Oct-08	0.86	21-Dec-08	0.271
21-Feb-08	0.097	21-Apr-08	0.483	21-Jun-08	4.45	21-Aug-08	13.9	22-Oct-08	0.88	22-Dec-08	0.266
22-Feb-08	0.097	22-Apr-08	0.501	22-Jun-08	5.34	22-Aug-08	11.2	23-Oct-08	0.85	23-Dec-08	0.261
23-Feb-08	0.097	23-Apr-08	0.520	23-Jun-08	4.40	23-Aug-08	10.4	24-Oct-08	0.88	24-Dec-08	0.257
24-Feb-08	0.098	24-Apr-08	0.540	24-Jun-08	4.18	24-Aug-08	18.0	25-Oct-08	0.72	25-Dec-08	0.252
25-Feb-08	0.098	25-Apr-08	0.561	25-Jun-08	3.73	25-Aug-08	10.6	26-Oct-08	0.75	26-Dec-08	0.247
26-Feb-08	0.099	26-Apr-08	0.582	26-Jun-08	3.49	26-Aug-08	7.91	27-Oct-08	0.80	27-Dec-08	0.243
27-Feb-08	0.099	27-Apr-08	0.604	27-Jun-08	3.92	27-Aug-08	5.53	28-Oct-08	0.84	28-Dec-08	0.239
28-Feb-08	0.099	28-Apr-08	0.617	28-Jun-08	6.71	28-Aug-08	6.10	29-Oct-08	0.83	29-Dec-08	0.234
29-Feb-08	0.100	29-Apr-08	0.611	29-Jun-08	5.90	29-Aug-08	4.37	30-Oct-08	0.77	30-Dec-08	0.230
		30-Apr-08	0.616	30-Jun-08	5.26	30-Aug-08	3.62	31-Oct-08	0.79	31-Dec-08	0.230
						31-Aug-08	2.90				

Notes:

Estimated values are italicized

<sup>a</sup> pressure transducer was remobilized

<sup>b</sup> pressure transducer was deactivated and removed



**Table A3-5. SCTR-3 - Summary of Daily Mean Flow (m<sup>3</sup>/s) 2008**

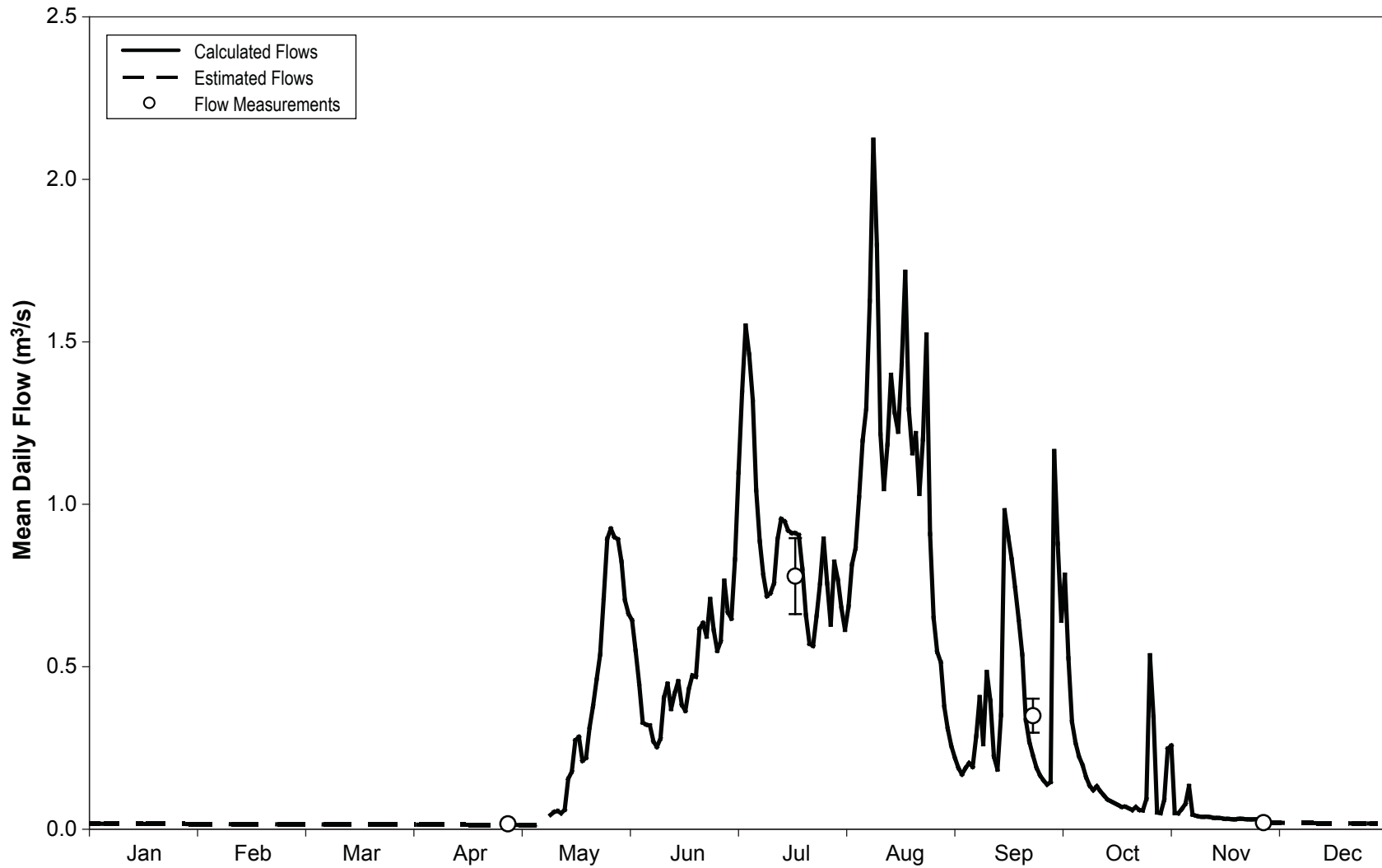
Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)
01-Jan-08	<i>0.017</i>	01-Mar-08	<i>0.015</i>	01-May-08	<i>0.013</i>	01-Jul-08	0.830	01-Sep-08	0.220	01-Nov-08	0.257
02-Jan-08	<i>0.017</i>	02-Mar-08	<i>0.015</i>	02-May-08	<i>0.013</i>	02-Jul-08	1.10	02-Sep-08	0.189	02-Nov-08	0.049
03-Jan-08	<i>0.017</i>	03-Mar-08	<i>0.015</i>	03-May-08	<i>0.013</i>	03-Jul-08	1.34	03-Sep-08	0.169	03-Nov-08	0.049
04-Jan-08	<i>0.017</i>	04-Mar-08	<i>0.015</i>	04-May-08	<i>0.013</i>	04-Jul-08	1.55	04-Sep-08	0.188	04-Nov-08	0.063
05-Jan-08	<i>0.017</i>	05-Mar-08	<i>0.015</i>	05-May-08	<i>0.013</i>	05-Jul-08	1.46	05-Sep-08	0.204	05-Nov-08	0.078
06-Jan-08	<i>0.017</i>	06-Mar-08	<i>0.015</i>	06-May-08	<i>0.013</i>	06-Jul-08	1.32	06-Sep-08	0.192	06-Nov-08	0.133
07-Jan-08	<i>0.017</i>	07-Mar-08	<i>0.015</i>	07-May-08	0.021	07-Jul-08	1.04	07-Sep-08	0.286	07-Nov-08	0.045
08-Jan-08	<i>0.017</i>	08-Mar-08	<i>0.015</i>	08-May-08	0.024	08-Jul-08	0.886	08-Sep-08	0.407	08-Nov-08	0.041
09-Jan-08	<i>0.017</i>	09-Mar-08	<i>0.015</i>	09-May-08	0.031	09-Jul-08	0.782	09-Sep-08	0.262	09-Nov-08	0.039
10-Jan-08	<i>0.017</i>	10-Mar-08	<i>0.015</i>	10-May-08	0.044	10-Jul-08	0.717	10-Sep-08	0.484	10-Nov-08	0.038
11-Jan-08	<i>0.017</i>	11-Mar-08	<i>0.015</i>	11-May-08	0.053	11-Jul-08	0.727	11-Sep-08	0.396	11-Nov-08	0.039
12-Jan-08	<i>0.017</i>	12-Mar-08	<i>0.015</i>	12-May-08	0.056	12-Jul-08	0.757	12-Sep-08	0.224	12-Nov-08	0.037
13-Jan-08	<i>0.017</i>	13-Mar-08	<i>0.015</i>	13-May-08	0.049	13-Jul-08	0.893	13-Sep-08	0.184	13-Nov-08	0.035
14-Jan-08	<i>0.017</i>	14-Mar-08	<i>0.015</i>	14-May-08	0.060	14-Jul-08	0.955	14-Sep-08	0.352	14-Nov-08	0.035
15-Jan-08	<i>0.016</i>	15-Mar-08	<i>0.015</i>	15-May-08	0.155	15-Jul-08	0.947	15-Sep-08	0.981	15-Nov-08	0.034
16-Jan-08	<i>0.016</i>	16-Mar-08	<i>0.015</i>	16-May-08	0.177	16-Jul-08	0.920	16-Sep-08	0.903	16-Nov-08	0.032
17-Jan-08	<i>0.016</i>	17-Mar-08	<i>0.014</i>	17-May-08	0.273	17-Jul-08	0.912	17-Sep-08	0.830	17-Nov-08	0.032
18-Jan-08	<i>0.016</i>	18-Mar-08	<i>0.014</i>	18-May-08	0.284	18-Jul-08	0.911	18-Sep-08	0.742	18-Nov-08	0.031
19-Jan-08	<i>0.016</i>	19-Mar-08	<i>0.014</i>	19-May-08	0.210	19-Jul-08	0.906	19-Sep-08	0.645	19-Nov-08	0.031
20-Jan-08	<i>0.016</i>	20-Mar-08	<i>0.014</i>	20-May-08	0.220	20-Jul-08	0.802	20-Sep-08	0.537	20-Nov-08	0.032
21-Jan-08	<i>0.016</i>	21-Mar-08	<i>0.014</i>	21-May-08	0.314	21-Jul-08	0.659	21-Sep-08	0.335	21-Nov-08	0.032
22-Jan-08	<i>0.016</i>	22-Mar-08	<i>0.014</i>	22-May-08	0.379	22-Jul-08	0.571	22-Sep-08	0.268	22-Nov-08	0.031
23-Jan-08	<i>0.016</i>	23-Mar-08	<i>0.014</i>	23-May-08	0.460	23-Jul-08	0.564	23-Sep-08	0.227	23-Nov-08	0.031
24-Jan-08	<i>0.016</i>	24-Mar-08	<i>0.014</i>	24-May-08	0.538	24-Jul-08	0.657	24-Sep-08	0.189	24-Nov-08	0.031
25-Jan-08	<i>0.016</i>	25-Mar-08	<i>0.014</i>	25-May-08	0.712	25-Jul-08	0.757	25-Sep-08	0.166	25-Nov-08	0.031
26-Jan-08	<i>0.016</i>	26-Mar-08	<i>0.014</i>	26-May-08	0.894	26-Jul-08	0.894	26-Sep-08	0.150	26-Nov-08	<i>0.030</i>
27-Jan-08	<i>0.016</i>	27-Mar-08	<i>0.014</i>	27-May-08	0.925	27-Jul-08	0.757	27-Sep-08	0.138	27-Nov-08	<i>0.020<sup>b</sup></i>
28-Jan-08	<i>0.016</i>	28-Mar-08	<i>0.014</i>	28-May-08	0.900	28-Jul-08	0.630	28-Sep-08	0.145	28-Nov-08	<i>0.020</i>
29-Jan-08	<i>0.016</i>	29-Mar-08	<i>0.014</i>	29-May-08	0.892	29-Jul-08	0.823	29-Sep-08	1.16	29-Nov-08	<i>0.020</i>
30-Jan-08	<i>0.016</i>	30-Mar-08	<i>0.014</i>	30-May-08	0.823	30-Jul-08	0.769	30-Sep-08	0.878	30-Nov-08	<i>0.020</i>
31-Jan-08	<i>0.016</i>	31-Mar-08	<i>0.014</i>	31-May-08	0.704	31-Jul-08	0.681	01-Oct-08	0.642	01-Dec-08	<i>0.020</i>
01-Feb-08	<i>0.016</i>	01-Apr-08	<i>0.014</i>	01-Jun-08	0.663	01-Aug-08	0.614	02-Oct-08	0.783	02-Dec-08	<i>0.020</i>
02-Feb-08	<i>0.016</i>	02-Apr-08	<i>0.014</i>	02-Jun-08	0.643	02-Aug-08	0.685	03-Oct-08	0.526	03-Dec-08	<i>0.020</i>
03-Feb-08	<i>0.016</i>	03-Apr-08	<i>0.014</i>	03-Jun-08	0.549	03-Aug-08	0.814	04-Oct-08	0.331	04-Dec-08	<i>0.020</i>
04-Feb-08	<i>0.016</i>	04-Apr-08	<i>0.014</i>	04-Jun-08	0.447	04-Aug-08	0.864	05-Oct-08	0.266	05-Dec-08	<i>0.019</i>
05-Feb-08	<i>0.016</i>	05-Apr-08	<i>0.014</i>	05-Jun-08	0.328	05-Aug-08	1.02	06-Oct-08	0.224	06-Dec-08	<i>0.019</i>
06-Feb-08	<i>0.016</i>	06-Apr-08	<i>0.014</i>	06-Jun-08	0.322	06-Aug-08	1.20	07-Oct-08	0.197	07-Dec-08	<i>0.019</i>
07-Feb-08	<i>0.016</i>	07-Apr-08	<i>0.014</i>	07-Jun-08	0.319	07-Aug-08	1.29	08-Oct-08	0.160	08-Dec-08	<i>0.019</i>
08-Feb-08	<i>0.016</i>	08-Apr-08	<i>0.014</i>	08-Jun-08	0.270	08-Aug-08	1.63	09-Oct-08	0.134	09-Dec-08	<i>0.019</i>
09-Feb-08	<i>0.016</i>	09-Apr-08	<i>0.014</i>	09-Jun-08	0.253	09-Aug-08	2.12	10-Oct-08	0.120	10-Dec-08	<i>0.019</i>
10-Feb-08	<i>0.016</i>	10-Apr-08	<i>0.014</i>	10-Jun-08	0.279	10-Aug-08	1.80	11-Oct-08	0.132	11-Dec-08	<i>0.019</i>
11-Feb-08	<i>0.016</i>	11-Apr-08	<i>0.014</i>	11-Jun-08	0.405	11-Aug-08	1.22	12-Oct-08	0.117	12-Dec-08	<i>0.019</i>
12-Feb-08	<i>0.016</i>	12-Apr-08	<i>0.014</i>	12-Jun-08	0.448	12-Aug-08	1.05	13-Oct-08	0.104	13-Dec-08	<i>0.019</i>
13-Feb-08	<i>0.016</i>	13-Apr-08	<i>0.014</i>	13-Jun-08	0.370	13-Aug-08	1.18	14-Oct-08	0.092	14-Dec-08	<i>0.019</i>
14-Feb-08	<i>0.015</i>	14-Apr-08	<i>0.014</i>	14-Jun-08	0.419	14-Aug-08	1.40	15-Oct-08	0.086	15-Dec-08	<i>0.019</i>
15-Feb-08	<i>0.015</i>	15-Apr-08	<i>0.014</i>	15-Jun-08	0.455	15-Aug-08	1.28	16-Oct-08	0.080	16-Dec-08	<i>0.018</i>
16-Feb-08	<i>0.015</i>	16-Apr-08	<i>0.014</i>	16-Jun-08	0.383	16-Aug-08	1.22	17-Oct-08	0.075	17-Dec-08	<i>0.018</i>
17-Feb-08	<i>0.015</i>	17-Apr-08	<i>0.014</i>	17-Jun-08	0.365	17-Aug-08	1.43	18-Oct-08	0.069	18-Dec-08	<i>0.018</i>
18-Feb-08	<i>0.015</i>	18-Apr-08	<i>0.014</i>	18-Jun-08	0.432	18-Aug-08	1.72	19-Oct-08	0.069	19-Dec-08	<i>0.018</i>
19-Feb-08	<i>0.015</i>	19-Apr-08	<i>0.014</i>	19-Jun-08	0.473	19-Aug-08	1.29	20-Oct-08	0.064	20-Dec-08	<i>0.018</i>
20-Feb-08	<i>0.015</i>	20-Apr-08	<i>0.013</i>	20-Jun-08	0.469	20-Aug-08	1.16	21-Oct-08	0.059	21-Dec-08	<i>0.018</i>
21-Feb-08	<i>0.015</i>	21-Apr-08	<i>0.013</i>	21-Jun-08	0.617	21-Aug-08	1.22	22-Oct-08	0.068	22-Dec-08	<i>0.018</i>
22-Feb-08	<i>0.015</i>	22-Apr-08	<i>0.013</i>	22-Jun-08	0.635	22-Aug-08	1.03	23-Oct-08	0.059	23-Dec-08	<i>0.018</i>
23-Feb-08	<i>0.015</i>	23-Apr-08	<i>0.013</i>	23-Jun-08	0.593	23-Aug-08	1.20	24-Oct-08	0.058	24-Dec-08	<i>0.018</i>
24-Feb-08	<i>0.015</i>	24-Apr-08	<i>0.013</i>	24-Jun-08	0.709	24-Aug-08	1.52	25-Oct-08	0.093	25-Dec-08	<i>0.018</i>
25-Feb-08	<i>0.015</i>	25-Apr-08	<i>0.013</i>	25-Jun-08	0.613	25-Aug-08	0.908	26-Oct-08	0.536	26-Dec-08	<i>0.018</i>
26-Feb-08	<i>0.015</i>	26-Apr-08	<i>0.013</i>	26-Jun-08	0.549	26-Aug-08	0.650	27-Oct-08	0.345	27-Dec-08	<i>0.018</i>
27-Feb-08	<i>0.015</i>	27-Apr-08	<i>0.013</i>	27-Jun-08	0.578	27-Aug-08	0.546	28-Oct-08	0.052	28-Dec-08	<i>0.017</i>
28-Feb-08	<i>0.015</i>	28-Apr-08	<i>0.013<sup>a</sup></i>	28-Jun-08	0.765	28-Aug-08	0.514	29-Oct-08	0.049	29-Dec-08	<i>0.017</i>
29-Feb-08	<i>0.015</i>	29-Apr-08	<i>0.013</i>	29-Jun-08	0.667	29-Aug-08	0.377	30-Oct-08	0.090	30-Dec-08	<i>0.017</i>
		30-Apr-08	<i>0.013</i>	30-Jun-08	0.648	30-Aug-08	0.309	31-Oct-08	0.248	31-Dec-08	<i>0.017</i>
						31-Aug-08	0.257				

Notes:

*Estimated values are italicized*

<sup>a</sup> *pressure transducer was remobilized*

<sup>b</sup> *pressure transducer was deactivated and removed*



**Table A3-6. SK-1 - Summary of Daily Mean Flow (m<sup>3</sup>/s) 2008**

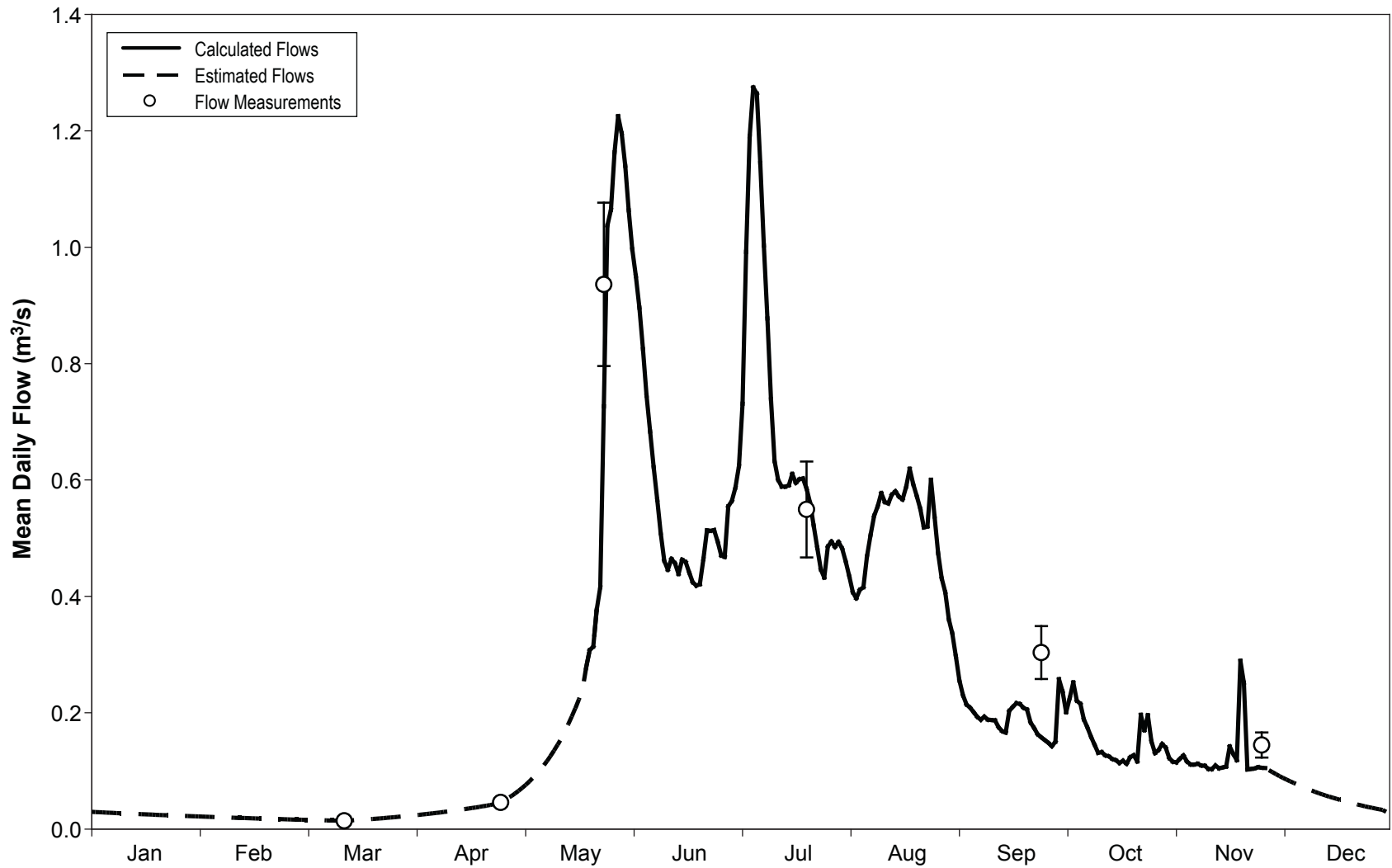
Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)
01-Jan-08	<i>0.030</i>	01-Mar-08	<i>0.016</i>	01-May-08	<i>0.071</i>	01-Jul-08	0.624	01-Sep-08	0.256	01-Nov-08	0.115
02-Jan-08	<i>0.029</i>	02-Mar-08	<i>0.016</i>	02-May-08	<i>0.076</i>	02-Jul-08	0.731	02-Sep-08	0.230	02-Nov-08	0.121
03-Jan-08	<i>0.029</i>	03-Mar-08	<i>0.016</i>	03-May-08	<i>0.082</i>	03-Jul-08	0.992	03-Sep-08	0.214	03-Nov-08	0.127
04-Jan-08	<i>0.029</i>	04-Mar-08	<i>0.015</i>	04-May-08	<i>0.088</i>	04-Jul-08	1.19	04-Sep-08	0.209	04-Nov-08	0.116
05-Jan-08	<i>0.028</i>	05-Mar-08	<i>0.015</i>	05-May-08	<i>0.094</i>	05-Jul-08	1.27	05-Sep-08	0.201	05-Nov-08	0.111
06-Jan-08	<i>0.028</i>	06-Mar-08	<i>0.015</i>	06-May-08	<i>0.101</i>	06-Jul-08	1.26	06-Sep-08	0.193	06-Nov-08	0.111
07-Jan-08	<i>0.028</i>	07-Mar-08	<i>0.015</i>	07-May-08	<i>0.109</i>	07-Jul-08	1.14	07-Sep-08	0.188	07-Nov-08	0.112
08-Jan-08	<i>0.028</i>	08-Mar-08	<i>0.015</i>	08-May-08	<i>0.117</i>	08-Jul-08	1.00	08-Sep-08	0.193	08-Nov-08	0.109
09-Jan-08	<i>0.027</i>	09-Mar-08	<i>0.015</i>	09-May-08	<i>0.126</i>	09-Jul-08	0.878	09-Sep-08	0.188	09-Nov-08	0.109
10-Jan-08	<i>0.027</i>	10-Mar-08	<i>0.015</i>	10-May-08	<i>0.135</i>	10-Jul-08	0.738	10-Sep-08	0.187	10-Nov-08	0.104
11-Jan-08	<i>0.027</i>	11-Mar-08	<i>0.014</i>	11-May-08	<i>0.145</i>	11-Jul-08	0.633	11-Sep-08	0.187	11-Nov-08	0.103
12-Jan-08	<i>0.026</i>	12-Mar-08	<i>0.014</i>	12-May-08	<i>0.156</i>	12-Jul-08	0.600	12-Sep-08	0.175	12-Nov-08	0.109
13-Jan-08	<i>0.026</i>	13-Mar-08	<i>0.015</i>	13-May-08	<i>0.167</i>	13-Jul-08	0.589	13-Sep-08	0.168	13-Nov-08	0.105
14-Jan-08	<i>0.026</i>	14-Mar-08	<i>0.015</i>	14-May-08	<i>0.180</i>	14-Jul-08	0.589	14-Sep-08	0.166	14-Nov-08	0.106
15-Jan-08	<i>0.026</i>	15-Mar-08	<i>0.015</i>	15-May-08	<i>0.193</i>	15-Jul-08	0.591	15-Sep-08	0.203	15-Nov-08	0.107
16-Jan-08	<i>0.025</i>	16-Mar-08	<i>0.016</i>	16-May-08	<i>0.208</i>	16-Jul-08	0.610	16-Sep-08	0.210	16-Nov-08	0.142
17-Jan-08	<i>0.025</i>	17-Mar-08	<i>0.016</i>	17-May-08	<i>0.223</i>	17-Jul-08	0.595	17-Sep-08	0.216	17-Nov-08	0.129
18-Jan-08	<i>0.025</i>	18-Mar-08	<i>0.017</i>	18-May-08	<i>0.240</i>	18-Jul-08	0.601	18-Sep-08	0.215	18-Nov-08	0.118
19-Jan-08	<i>0.025</i>	19-Mar-08	<i>0.017</i>	19-May-08	<i>0.277</i>	19-Jul-08	0.602	19-Sep-08	0.209	19-Nov-08	0.289
20-Jan-08	<i>0.024</i>	20-Mar-08	<i>0.018</i>	20-May-08	0.308	20-Jul-08	0.585	20-Sep-08	0.206	20-Nov-08	0.252
21-Jan-08	<i>0.024</i>	21-Mar-08	<i>0.018</i>	21-May-08	0.314	21-Jul-08	0.560	21-Sep-08	0.184	21-Nov-08	0.102
22-Jan-08	<i>0.024</i>	22-Mar-08	<i>0.018</i>	22-May-08	<i>0.377</i>	22-Jul-08	0.521	22-Sep-08	0.174	22-Nov-08	0.103
23-Jan-08	<i>0.024</i>	23-Mar-08	<i>0.019</i>	23-May-08	0.416	23-Jul-08	0.484	23-Sep-08	0.163	23-Nov-08	0.104
24-Jan-08	<i>0.023</i>	24-Mar-08	<i>0.019</i>	24-May-08	<i>0.727</i>	24-Jul-08	0.446	24-Sep-08	0.158	24-Nov-08	0.106
25-Jan-08	<i>0.023</i>	25-Mar-08	<i>0.020</i>	25-May-08	1.04	25-Jul-08	0.432	25-Sep-08	0.153	25-Nov-08	0.105 <sup>b</sup>
26-Jan-08	<i>0.023</i>	26-Mar-08	<i>0.021</i>	26-May-08	1.06	26-Jul-08	0.486	26-Sep-08	0.148	26-Nov-08	<i>0.105</i>
27-Jan-08	<i>0.023</i>	27-Mar-08	<i>0.021</i>	27-May-08	1.16	27-Jul-08	0.494	27-Sep-08	0.142	27-Nov-08	<i>0.101</i>
28-Jan-08	<i>0.022</i>	28-Mar-08	<i>0.022</i>	28-May-08	1.23	28-Jul-08	0.485	28-Sep-08	0.150	28-Nov-08	<i>0.098</i>
29-Jan-08	<i>0.022</i>	29-Mar-08	<i>0.022</i>	29-May-08	1.20	29-Jul-08	0.494	29-Sep-08	0.258	29-Nov-08	<i>0.094</i>
30-Jan-08	<i>0.022</i>	30-Mar-08	<i>0.023</i>	30-May-08	1.14	30-Jul-08	0.482	30-Sep-08	0.237	30-Nov-08	<i>0.091</i>
31-Jan-08	<i>0.022</i>	31-Mar-08	<i>0.023</i>	31-May-08	1.06	31-Jul-08	0.460	01-Oct-08	0.201	01-Dec-08	<i>0.088</i>
01-Feb-08	<i>0.022</i>	01-Apr-08	<i>0.024</i>	01-Jun-08	1.00	01-Aug-08	0.435	02-Oct-08	0.225	02-Dec-08	<i>0.085</i>
02-Feb-08	<i>0.021</i>	02-Apr-08	<i>0.025</i>	02-Jun-08	0.951	02-Aug-08	0.407	03-Oct-08	0.252	03-Dec-08	<i>0.082</i>
03-Feb-08	<i>0.021</i>	03-Apr-08	<i>0.025</i>	03-Jun-08	0.896	03-Aug-08	0.397	04-Oct-08	0.221	04-Dec-08	<i>0.079</i>
04-Feb-08	<i>0.021</i>	04-Apr-08	<i>0.026</i>	04-Jun-08	0.825	04-Aug-08	0.411	05-Oct-08	0.215	05-Dec-08	<i>0.077</i>
05-Feb-08	<i>0.021</i>	05-Apr-08	<i>0.027</i>	05-Jun-08	0.745	05-Aug-08	0.416	06-Oct-08	0.189	06-Dec-08	<i>0.074</i>
06-Feb-08	<i>0.020</i>	06-Apr-08	<i>0.027</i>	06-Jun-08	0.683	06-Aug-08	0.469	07-Oct-08	0.175	07-Dec-08	<i>0.071</i>
07-Feb-08	<i>0.020</i>	07-Apr-08	<i>0.028</i>	07-Jun-08	0.622	07-Aug-08	0.505	08-Oct-08	0.159	08-Dec-08	<i>0.069</i>
08-Feb-08	<i>0.020</i>	08-Apr-08	<i>0.029</i>	08-Jun-08	0.566	08-Aug-08	0.538	09-Oct-08	0.145	09-Dec-08	<i>0.066</i>
09-Feb-08	<i>0.020</i>	09-Apr-08	<i>0.029</i>	09-Jun-08	0.509	09-Aug-08	0.555	10-Oct-08	0.131	10-Dec-08	<i>0.064</i>
10-Feb-08	<i>0.020</i>	10-Apr-08	<i>0.030</i>	10-Jun-08	0.461	10-Aug-08	0.577	11-Oct-08	0.132	11-Dec-08	<i>0.062</i>
11-Feb-08	<i>0.019</i>	11-Apr-08	<i>0.031</i>	11-Jun-08	0.446	11-Aug-08	0.562	12-Oct-08	0.127	12-Dec-08	<i>0.060</i>
12-Feb-08	<i>0.019</i>	12-Apr-08	<i>0.032</i>	12-Jun-08	0.464	12-Aug-08	0.560	13-Oct-08	0.125	13-Dec-08	<i>0.058</i>
13-Feb-08	<i>0.019</i>	13-Apr-08	<i>0.033</i>	13-Jun-08	0.457	13-Aug-08	0.575	14-Oct-08	0.120	14-Dec-08	<i>0.056</i>
14-Feb-08	<i>0.019</i>	14-Apr-08	<i>0.034</i>	14-Jun-08	0.439	14-Aug-08	0.581	15-Oct-08	0.118	15-Dec-08	<i>0.054</i>
15-Feb-08	<i>0.019</i>	15-Apr-08	<i>0.034</i>	15-Jun-08	0.463	15-Aug-08	0.572	16-Oct-08	0.114	16-Dec-08	<i>0.052</i>
16-Feb-08	<i>0.018</i>	16-Apr-08	<i>0.035</i>	16-Jun-08	0.459	16-Aug-08	0.566	17-Oct-08	0.118	17-Dec-08	<i>0.050</i>
17-Feb-08	<i>0.018</i>	17-Apr-08	<i>0.036</i>	17-Jun-08	0.441	17-Aug-08	0.588	18-Oct-08	0.112	18-Dec-08	<i>0.048</i>
18-Feb-08	<i>0.018</i>	18-Apr-08	<i>0.037</i>	18-Jun-08	0.424	18-Aug-08	0.619	19-Oct-08	0.123	19-Dec-08	<i>0.047</i>
19-Feb-08	<i>0.018</i>	19-Apr-08	<i>0.038</i>	19-Jun-08	0.419	19-Aug-08	0.593	20-Oct-08	0.127	20-Dec-08	<i>0.045</i>
20-Feb-08	<i>0.018</i>	20-Apr-08	<i>0.039</i>	20-Jun-08	0.421	20-Aug-08	0.572	21-Oct-08	0.116	21-Dec-08	<i>0.044</i>
21-Feb-08	<i>0.018</i>	21-Apr-08	<i>0.040</i>	21-Jun-08	0.464	21-Aug-08	0.551	22-Oct-08	0.196	22-Dec-08	<i>0.042</i>
22-Feb-08	<i>0.017</i>	22-Apr-08	<i>0.041</i>	22-Jun-08	0.513	22-Aug-08	0.518	23-Oct-08	0.170	23-Dec-08	<i>0.041</i>
23-Feb-08	<i>0.017</i>	23-Apr-08	<i>0.042</i>	23-Jun-08	0.513	23-Aug-08	0.520	24-Oct-08	0.196	24-Dec-08	<i>0.039</i>
24-Feb-08	<i>0.017</i>	24-Apr-08	<i>0.044</i>	24-Jun-08	0.514	24-Aug-08	0.600	25-Oct-08	0.151	25-Dec-08	<i>0.038</i>
25-Feb-08	<i>0.017</i>	25-Apr-08	<i>0.046<sup>a</sup></i>	25-Jun-08	0.494	25-Aug-08	0.537	26-Oct-08	0.131	26-Dec-08	<i>0.037</i>
26-Feb-08	<i>0.017</i>	26-Apr-08	<i>0.049</i>	26-Jun-08	0.470	26-Aug-08	0.474	27-Oct-08	0.136	27-Dec-08	<i>0.035</i>
27-Feb-08	<i>0.016</i>	27-Apr-08	<i>0.053</i>	27-Jun-08	0.468	27-Aug-08	0.431	28-Oct-08	0.146	28-Dec-08	<i>0.034</i>
28-Feb-08	<i>0.016</i>	28-Apr-08	<i>0.057</i>	28-Jun-08	0.555	28-Aug-08	0.407	29-Oct-08	0.140	29-Dec-08	<i>0.033</i>
29-Feb-08	<i>0.016</i>	29-Apr-08	<i>0.061</i>	29-Jun-08	0.564	29-Aug-08	0.360	30-Oct-08	0.122	30-Dec-08	<i>0.030</i>
		30-Apr-08	<i>0.066</i>	30-Jun-08	0.587	30-Aug-08	0.337	31-Oct-08	0.116	31-Dec-08	<i>0.030</i>
						31-Aug-08	0.297				

Notes:

*Estimated values are italicized*

<sup>a</sup> *pressure transducer was remobilized*

<sup>b</sup> *pressure transducer was deactivated and removed*





**Table A3-7. SK-2 - Summary of Daily Mean Flow (m<sup>3</sup>/s) 2008**

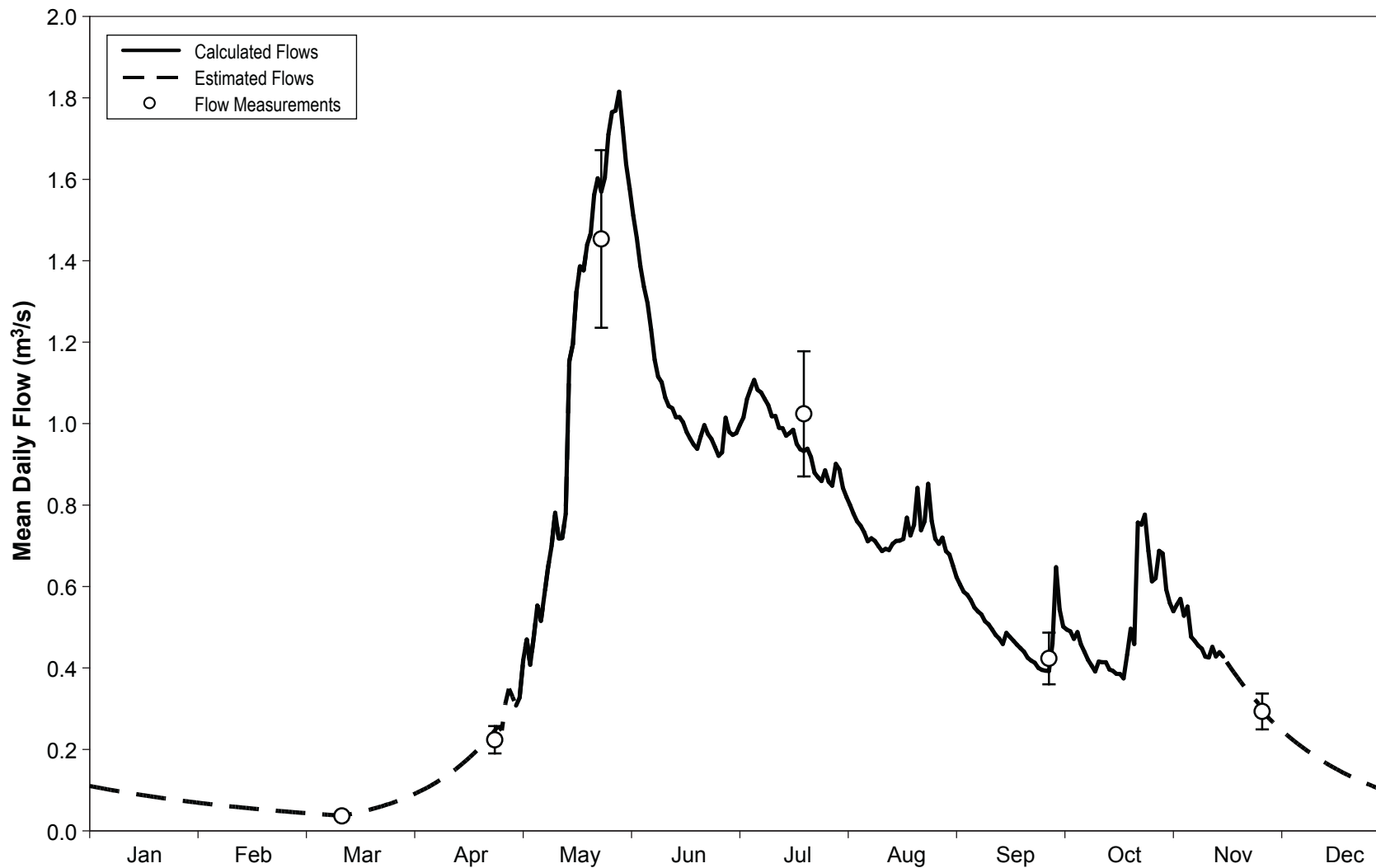
Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)
01-Jan-08	0.110	01-Mar-08	0.044	01-May-08	0.327	01-Jul-08	0.977	01-Sep-08	0.623	01-Nov-08	0.539
02-Jan-08	0.108	02-Mar-08	0.043	02-May-08	0.419	02-Jul-08	1.00	02-Sep-08	0.604	02-Nov-08	0.555
03-Jan-08	0.107	03-Mar-08	0.043	03-May-08	0.470	03-Jul-08	1.02	03-Sep-08	0.587	03-Nov-08	0.569
04-Jan-08	0.105	04-Mar-08	0.042	04-May-08	0.408	04-Jul-08	1.06	04-Sep-08	0.580	04-Nov-08	0.528
05-Jan-08	0.104	05-Mar-08	0.042	05-May-08	0.476	05-Jul-08	1.09	05-Sep-08	0.567	05-Nov-08	0.551
06-Jan-08	0.102	06-Mar-08	0.041	06-May-08	0.553	06-Jul-08	1.11	06-Sep-08	0.548	06-Nov-08	0.477
07-Jan-08	0.100	07-Mar-08	0.040	07-May-08	0.516	07-Jul-08	1.08	07-Sep-08	0.539	07-Nov-08	0.467
08-Jan-08	0.099	08-Mar-08	0.040	08-May-08	0.581	08-Jul-08	1.08	08-Sep-08	0.532	08-Nov-08	0.455
09-Jan-08	0.097	09-Mar-08	0.039	09-May-08	0.647	09-Jul-08	1.06	09-Sep-08	0.515	09-Nov-08	0.447
10-Jan-08	0.096	10-Mar-08	0.038	10-May-08	0.700	10-Jul-08	1.05	10-Sep-08	0.507	10-Nov-08	0.428
11-Jan-08	0.094	11-Mar-08	0.038	11-May-08	0.781	11-Jul-08	1.02	11-Sep-08	0.495	11-Nov-08	0.426
12-Jan-08	0.093	12-Mar-08	0.037	12-May-08	0.718	12-Jul-08	1.02	12-Sep-08	0.481	12-Nov-08	0.452
13-Jan-08	0.092	13-Mar-08	0.038	13-May-08	0.719	13-Jul-08	0.990	13-Sep-08	0.472	13-Nov-08	0.429
14-Jan-08	0.090	14-Mar-08	0.040	14-May-08	0.778	14-Jul-08	0.989	14-Sep-08	0.459	14-Nov-08	0.439
15-Jan-08	0.089	15-Mar-08	0.042	15-May-08	1.15	15-Jul-08	0.970	15-Sep-08	0.486	15-Nov-08	0.428
16-Jan-08	0.088	16-Mar-08	0.044	16-May-08	1.19	16-Jul-08	0.977	16-Sep-08	0.476	16-Nov-08	0.415
17-Jan-08	0.086	17-Mar-08	0.046	17-May-08	1.32	17-Jul-08	0.985	17-Sep-08	0.467	17-Nov-08	0.402
18-Jan-08	0.085	18-Mar-08	0.048	18-May-08	1.39	18-Jul-08	0.950	18-Sep-08	0.457	18-Nov-08	0.389
19-Jan-08	0.084	19-Mar-08	0.050	19-May-08	1.38	19-Jul-08	0.937	19-Sep-08	0.448	19-Nov-08	0.377
20-Jan-08	0.082	20-Mar-08	0.052	20-May-08	1.44	20-Jul-08	0.933	20-Sep-08	0.440	20-Nov-08	0.366
21-Jan-08	0.081	21-Mar-08	0.055	21-May-08	1.47	21-Jul-08	0.939	21-Sep-08	0.425	21-Nov-08	0.354
22-Jan-08	0.080	22-Mar-08	0.057	22-May-08	1.56	22-Jul-08	0.918	22-Sep-08	0.418	22-Nov-08	0.343
23-Jan-08	0.079	23-Mar-08	0.060	23-May-08	1.60	23-Jul-08	0.879	23-Sep-08	0.413	23-Nov-08	0.333
24-Jan-08	0.078	24-Mar-08	0.063	24-May-08	1.57	24-Jul-08	0.868	24-Sep-08	0.400	24-Nov-08	0.322
25-Jan-08	0.076	25-Mar-08	0.065	25-May-08	1.60	25-Jul-08	0.859	25-Sep-08	0.395	25-Nov-08	0.312
26-Jan-08	0.075	26-Mar-08	0.068	26-May-08	1.71	26-Jul-08	0.885	26-Sep-08	0.393	26-Nov-08	0.290 <sup>b</sup>
27-Jan-08	0.074	27-Mar-08	0.071	27-May-08	1.76	27-Jul-08	0.857	27-Sep-08	0.392	27-Nov-08	0.284
28-Jan-08	0.073	28-Mar-08	0.075	28-May-08	1.77	28-Jul-08	0.848	28-Sep-08	0.460	28-Nov-08	0.275
29-Jan-08	0.072	29-Mar-08	0.078	29-May-08	1.82	29-Jul-08	0.901	29-Sep-08	0.647	29-Nov-08	0.267
30-Jan-08	0.071	30-Mar-08	0.082	30-May-08	1.73	30-Jul-08	0.888	30-Sep-08	0.544	30-Nov-08	0.258
31-Jan-08	0.070	31-Mar-08	0.085	31-May-08	1.64	31-Jul-08	0.842	01-Oct-08	0.502	01-Dec-08	0.250
01-Feb-08	0.069	01-Apr-08	0.089	01-Jun-08	1.58	01-Aug-08	0.820	02-Oct-08	0.494	02-Dec-08	0.243
02-Feb-08	0.068	02-Apr-08	0.093	02-Jun-08	1.51	02-Aug-08	0.800	03-Oct-08	0.490	03-Dec-08	0.235
03-Feb-08	0.067	03-Apr-08	0.097	03-Jun-08	1.46	03-Aug-08	0.779	04-Oct-08	0.472	04-Dec-08	0.228
04-Feb-08	0.066	04-Apr-08	0.102	04-Jun-08	1.39	04-Aug-08	0.760	05-Oct-08	0.488	05-Dec-08	0.221
05-Feb-08	0.065	05-Apr-08	0.106	05-Jun-08	1.34	05-Aug-08	0.749	06-Oct-08	0.458	06-Dec-08	0.214
06-Feb-08	0.064	06-Apr-08	0.111	06-Jun-08	1.30	06-Aug-08	0.733	07-Oct-08	0.439	07-Dec-08	0.207
07-Feb-08	0.063	07-Apr-08	0.116	07-Jun-08	1.23	07-Aug-08	0.711	08-Oct-08	0.420	08-Dec-08	0.201
08-Feb-08	0.062	08-Apr-08	0.121	08-Jun-08	1.16	08-Aug-08	0.718	09-Oct-08	0.406	09-Dec-08	0.195
09-Feb-08	0.061	09-Apr-08	0.127	09-Jun-08	1.12	09-Aug-08	0.712	10-Oct-08	0.391	10-Dec-08	0.189
10-Feb-08	0.060	10-Apr-08	0.133	10-Jun-08	1.10	10-Aug-08	0.699	11-Oct-08	0.416	11-Dec-08	0.183
11-Feb-08	0.059	11-Apr-08	0.139	11-Jun-08	1.06	11-Aug-08	0.687	12-Oct-08	0.414	12-Dec-08	0.177
12-Feb-08	0.058	12-Apr-08	0.145	12-Jun-08	1.04	12-Aug-08	0.693	13-Oct-08	0.414	13-Dec-08	0.172
13-Feb-08	0.057	13-Apr-08	0.151	13-Jun-08	1.04	13-Aug-08	0.689	14-Oct-08	0.396	14-Dec-08	0.166
14-Feb-08	0.056	14-Apr-08	0.158	14-Jun-08	1.02	14-Aug-08	0.705	15-Oct-08	0.393	15-Dec-08	0.161
15-Feb-08	0.055	15-Apr-08	0.165	15-Jun-08	1.02	15-Aug-08	0.712	16-Oct-08	0.386	16-Dec-08	0.156
16-Feb-08	0.055	16-Apr-08	0.173	16-Jun-08	1.00	16-Aug-08	0.713	17-Oct-08	0.385	17-Dec-08	0.151
17-Feb-08	0.054	17-Apr-08	0.181	17-Jun-08	0.979	17-Aug-08	0.717	18-Oct-08	0.374	18-Dec-08	0.147
18-Feb-08	0.053	18-Apr-08	0.189	18-Jun-08	0.964	18-Aug-08	0.769	19-Oct-08	0.433	19-Dec-08	0.142
19-Feb-08	0.052	19-Apr-08	0.197	19-Jun-08	0.949	19-Aug-08	0.725	20-Oct-08	0.496	20-Dec-08	0.138
20-Feb-08	0.051	20-Apr-08	0.206	20-Jun-08	0.938	20-Aug-08	0.751	21-Oct-08	0.459	21-Dec-08	0.133
21-Feb-08	0.051	21-Apr-08	0.216	21-Jun-08	0.969	21-Aug-08	0.842	22-Oct-08	0.757	22-Dec-08	0.129
22-Feb-08	0.050	22-Apr-08	0.225	22-Jun-08	1.00	22-Aug-08	0.738	23-Oct-08	0.752	23-Dec-08	0.125
23-Feb-08	0.049	23-Apr-08	0.236	23-Jun-08	0.974	23-Aug-08	0.760	24-Oct-08	0.777	24-Dec-08	0.121
24-Feb-08	0.048	24-Apr-08	0.246	24-Jun-08	0.962	24-Aug-08	0.852	25-Oct-08	0.687	25-Dec-08	0.118
25-Feb-08	0.048	25-Apr-08	0.257 <sup>a</sup>	25-Jun-08	0.942	25-Aug-08	0.761	26-Oct-08	0.613	26-Dec-08	0.114
26-Feb-08	0.047	26-Apr-08	0.247	26-Jun-08	0.921	26-Aug-08	0.717	27-Oct-08	0.620	27-Dec-08	0.110
27-Feb-08	0.046	27-Apr-08	0.312	27-Jun-08	0.929	27-Aug-08	0.705	28-Oct-08	0.688	28-Dec-08	0.107
28-Feb-08	0.046	28-Apr-08	0.349	28-Jun-08	1.01	28-Aug-08	0.720	29-Oct-08	0.681	29-Dec-08	0.104
29-Feb-08	0.045	29-Apr-08	0.329	29-Jun-08	0.980	29-Aug-08	0.687	30-Oct-08	0.593	30-Dec-08	0.100
		30-Apr-08	0.308	30-Jun-08	0.972	30-Aug-08	0.679	31-Oct-08	0.560	31-Dec-08	0.100
						31-Aug-08	0.651				

Notes:

Estimated values are italicized

<sup>a</sup> pressure transducer was remobilized

<sup>b</sup> pressure transducer was deactivated and removed



**Table A3-8. MESS-1 - Summary of Daily Mean Flow (m<sup>3</sup>/s) 2008**

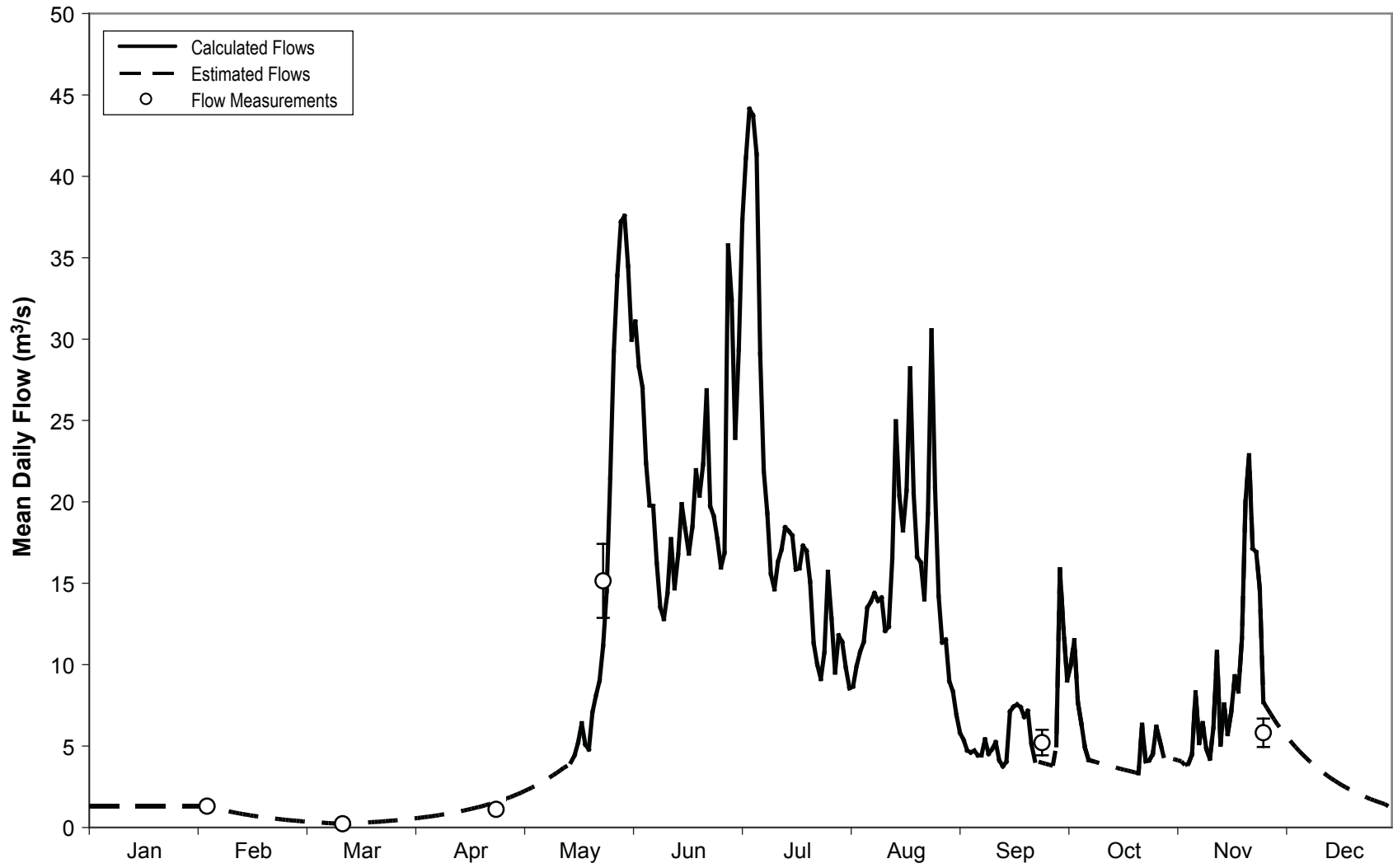
Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)	Date	Mean Daily Flow (m <sup>3</sup> /s)
01-Jan-08	1.30	01-Mar-08	0.374	01-May-08	2.70	01-Jul-08	29.3	01-Sep-08	5.80	01-Nov-08	5.49
02-Jan-08	1.30	02-Mar-08	0.357	02-May-08	2.83	02-Jul-08	37.3	02-Sep-08	5.38	02-Nov-08	5.40
03-Jan-08	1.30	03-Mar-08	0.341	03-May-08	2.98	03-Jul-08	41.1	03-Sep-08	4.73	03-Nov-08	5.18
04-Jan-08	1.30	04-Mar-08	0.325	04-May-08	3.13	04-Jul-08	44.1	04-Sep-08	4.61	04-Nov-08	5.28
05-Jan-08	1.30	05-Mar-08	0.311	05-May-08	3.29	05-Jul-08	43.7	05-Sep-08	4.71	05-Nov-08	4.49
06-Jan-08	1.30	06-Mar-08	0.297	06-May-08	3.46	06-Jul-08	41.4	06-Sep-08	4.43	06-Nov-08	8.29
07-Jan-08	1.30	07-Mar-08	0.283	07-May-08	3.63	07-Jul-08	29.1	07-Sep-08	4.43	07-Nov-08	6.78
08-Jan-08	1.30	08-Mar-08	0.270	08-May-08	3.82	08-Jul-08	21.9	08-Sep-08	5.41	08-Nov-08	6.41
09-Jan-08	1.30	09-Mar-08	0.258	09-May-08	4.01	09-Jul-08	19.3	09-Sep-08	4.52	09-Nov-08	4.84
10-Jan-08	1.30	10-Mar-08	0.246	10-May-08	4.21	10-Jul-08	15.6	10-Sep-08	4.81	10-Nov-08	4.23
11-Jan-08	1.30	11-Mar-08	0.235	11-May-08	4.43	11-Jul-08	14.6	11-Sep-08	5.24	11-Nov-08	6.12
12-Jan-08	1.30	12-Mar-08	0.225	12-May-08	4.66	12-Jul-08	16.3	12-Sep-08	4.12	12-Nov-08	10.8
13-Jan-08	1.30	13-Mar-08	0.236	13-May-08	4.89	13-Jul-08	17.1	13-Sep-08	5.09	13-Nov-08	6.67
14-Jan-08	1.30	14-Mar-08	0.248	14-May-08	5.14	14-Jul-08	18.4	14-Sep-08	5.43	14-Nov-08	9.53
15-Jan-08	1.30	15-Mar-08	0.261	15-May-08	5.40	15-Jul-08	18.2	15-Sep-08	7.12	15-Nov-08	7.42
16-Jan-08	1.30	16-Mar-08	0.274	16-May-08	5.89	16-Jul-08	17.9	16-Sep-08	7.42	16-Nov-08	9.00
17-Jan-08	1.30	17-Mar-08	0.288	17-May-08	5.23	17-Jul-08	15.9	17-Sep-08	7.55	17-Nov-08	9.29
18-Jan-08	1.30	18-Mar-08	0.303	18-May-08	6.40	18-Jul-08	15.9	18-Sep-08	7.38	18-Nov-08	8.36
19-Jan-08	1.30	19-Mar-08	0.318	19-May-08	5.10	19-Jul-08	17.3	19-Sep-08	6.80	19-Nov-08	11.6
20-Jan-08	1.30	20-Mar-08	0.334	20-May-08	4.80	20-Jul-08	17.0	20-Sep-08	7.16	20-Nov-08	20.0
21-Jan-08	1.30	21-Mar-08	0.351	21-May-08	7.06	21-Jul-08	15.1	21-Sep-08	5.13	21-Nov-08	22.9
22-Jan-08	1.30	22-Mar-08	0.369	22-May-08	8.11	22-Jul-08	11.3	22-Sep-08	4.10	22-Nov-08	17.1
23-Jan-08	1.30	23-Mar-08	0.388	23-May-08	9.01	23-Jul-08	10.0	23-Sep-08	4.04	23-Nov-08	16.9
24-Jan-08	1.30	24-Mar-08	0.408	24-May-08	11.1	24-Jul-08	9.12	24-Sep-08	3.97	24-Nov-08	14.7
25-Jan-08	1.30	25-Mar-08	0.429	25-May-08	14.5	25-Jul-08	10.7	25-Sep-08	3.91	25-Nov-08	9.71 <sup>b</sup>
26-Jan-08	1.30	26-Mar-08	0.450	26-May-08	21.5	26-Jul-08	15.7	26-Sep-08	3.85	26-Nov-08	9.18
27-Jan-08	1.30	27-Mar-08	0.473	27-May-08	29.2	27-Jul-08	12.8	27-Sep-08	3.79	27-Nov-08	8.69
28-Jan-08	1.30	28-Mar-08	0.498	28-May-08	33.9	28-Jul-08	9.52	28-Sep-08	6.62	28-Nov-08	8.21
29-Jan-08	1.30	29-Mar-08	0.523	29-May-08	37.2	29-Jul-08	11.8	29-Sep-08	15.9	29-Nov-08	7.77
30-Jan-08	1.30	30-Mar-08	0.549	30-May-08	37.6	30-Jul-08	11.4	30-Sep-08	12.2	30-Nov-08	7.35
31-Jan-08	1.30	31-Mar-08	0.577	31-May-08	34.5	31-Jul-08	9.82	01-Oct-08	9.04	01-Dec-08	6.95
01-Feb-08	1.30	01-Apr-08	0.607	01-Jun-08	30.0	01-Aug-08	8.56	02-Oct-08	9.97	02-Dec-08	6.57
02-Feb-08	1.30	02-Apr-08	0.638	02-Jun-08	31.1	02-Aug-08	8.66	03-Oct-08	11.5	03-Dec-08	6.21
03-Feb-08	1.30	03-Apr-08	0.670	03-Jun-08	28.3	03-Aug-08	9.92	04-Oct-08	7.69	04-Dec-08	5.87
04-Feb-08	1.25	04-Apr-08	0.704	04-Jun-08	27.0	04-Aug-08	10.8	05-Oct-08	6.35	05-Dec-08	5.56
05-Feb-08	1.19	05-Apr-08	0.740	05-Jun-08	22.4	05-Aug-08	11.4	06-Oct-08	4.88	06-Dec-08	5.25
06-Feb-08	1.14	06-Apr-08	0.778	06-Jun-08	19.8	06-Aug-08	13.5	07-Oct-08	4.15	07-Dec-08	4.97
07-Feb-08	1.08	07-Apr-08	0.818	07-Jun-08	19.7	07-Aug-08	13.9	08-Oct-08	4.08	08-Dec-08	4.70
08-Feb-08	1.04	08-Apr-08	0.859	08-Jun-08	16.2	08-Aug-08	14.4	09-Oct-08	4.02	09-Dec-08	4.44
09-Feb-08	0.988	09-Apr-08	0.903	09-Jun-08	13.5	09-Aug-08	13.9	10-Oct-08	3.96	10-Dec-08	4.20
10-Feb-08	0.943	10-Apr-08	0.949	10-Jun-08	12.8	10-Aug-08	14.1	11-Oct-08	3.90	11-Dec-08	3.97
11-Feb-08	0.901	11-Apr-08	0.998	11-Jun-08	14.4	11-Aug-08	12.1	12-Oct-08	3.83	12-Dec-08	3.76
12-Feb-08	0.860	12-Apr-08	1.05	12-Jun-08	17.7	12-Aug-08	12.3	13-Oct-08	3.77	13-Dec-08	3.55
13-Feb-08	0.821	13-Apr-08	1.10	13-Jun-08	14.7	13-Aug-08	16.5	14-Oct-08	3.72	14-Dec-08	3.36
14-Feb-08	0.784	14-Apr-08	1.16	14-Jun-08	16.7	14-Aug-08	24.9	15-Oct-08	3.66	15-Dec-08	3.18
15-Feb-08	0.749	15-Apr-08	1.22	15-Jun-08	19.9	15-Aug-08	20.4	16-Oct-08	3.60	16-Dec-08	3.01
16-Feb-08	0.715	16-Apr-08	1.28	16-Jun-08	18.3	16-Aug-08	18.3	17-Oct-08	3.54	17-Dec-08	2.84
17-Feb-08	0.682	17-Apr-08	1.34	17-Jun-08	16.8	17-Aug-08	20.7	18-Oct-08	3.49	18-Dec-08	2.69
18-Feb-08	0.651	18-Apr-08	1.41	18-Jun-08	18.5	18-Aug-08	28.2	19-Oct-08	3.43	19-Dec-08	2.54
19-Feb-08	0.622	19-Apr-08	1.48	19-Jun-08	21.9	19-Aug-08	20.5	20-Oct-08	3.38	20-Dec-08	2.40
20-Feb-08	0.594	20-Apr-08	1.56	20-Jun-08	20.4	20-Aug-08	16.6	21-Oct-08	3.33	21-Dec-08	2.27
21-Feb-08	0.567	21-Apr-08	1.64	21-Jun-08	22.3	21-Aug-08	16.3	22-Oct-08	8.07	22-Dec-08	2.15
22-Feb-08	0.541	22-Apr-08	1.72	22-Jun-08	26.9	22-Aug-08	14.0	23-Oct-08	4.07	23-Dec-08	2.03
23-Feb-08	0.517	23-Apr-08	1.81	23-Jun-08	19.7	23-Aug-08	19.3	24-Oct-08	5.53	24-Dec-08	1.92
24-Feb-08	0.493	24-Apr-08	1.90 <sup>a</sup>	24-Jun-08	19.1	24-Aug-08	30.5	25-Oct-08	5.97	25-Dec-08	1.82
25-Feb-08	0.471	25-Apr-08	2.00	25-Jun-08	17.7	25-Aug-08	20.8	26-Oct-08	7.95	26-Dec-08	1.72
26-Feb-08	0.450	26-Apr-08	2.10	26-Jun-08	16.0	26-Aug-08	14.2	27-Oct-08	6.90	27-Dec-08	1.63
27-Feb-08	0.430	27-Apr-08	2.21	27-Jun-08	16.9	27-Aug-08	11.4	28-Oct-08	5.85	28-Dec-08	1.54
28-Feb-08	0.410	28-Apr-08	2.32	28-Jun-08	35.8	28-Aug-08	11.5	29-Oct-08	5.76	29-Dec-08	1.45
29-Feb-08	0.392	29-Apr-08	2.44	29-Jun-08	32.4	29-Aug-08	8.98	30-Oct-08	5.66	30-Dec-08	1.30
		30-Apr-08	2.56	30-Jun-08	23.9	30-Aug-08	8.35	31-Oct-08	5.58	31-Dec-08	1.30
						31-Aug-08	6.89				

Notes:

Estimated values are italicized

<sup>a</sup> pressure transducer was remobilized

<sup>b</sup> pressure transducer was deactivated and removed



# **Appendix 4**

## Bathymetric Data



**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
382562	6369704	4	382585	6369450	7	382634	6369204	7	382305	6369526	6
382572	6369703	4	382581	6369441	8	382647	6369202	6	382310	6369537	8
382582	6369706	3	382580	6369430	7	382654	6369198	5	382313	6369548	8
382622	6369664	3	382579	6369419	8	382658	6369189	3	382327	6369558	10
382627	6369659	3	382585	6369410	8	382657	6369182	3	382340	6369560	12
382623	6369658	3	382598	6369407	8	382650	6369170	3	382360	6369568	13
382613	6369661	4	382608	6369407	8	382642	6369163	4	382376	6369564	13
382603	6369663	4	382623	6369407	8	382631	6369165	5	382389	6369544	12
382592	6369663	3	382638	6369408	8	382618	6369168	7	382397	6369539	11
382588	6369656	3	382652	6369409	8	382610	6369170	7	382405	6369535	10
382591	6369647	3	382664	6369407	7	382602	6369169	7	382416	6369535	8
382598	6369635	4	382673	6369398	7	382593	6369164	6	382420	6369539	6
382599	6369627	4	382675	6369388	6	382590	6369153	5	382422	6369555	10
382601	6369616	4	382674	6369373	6	382592	6369143	5	382430	6369561	10
382613	6369612	5	382671	6369362	7	382595	6369138	4	382439	6369567	8
382625	6369615	5	382669	6369352	7	382600	6369130	4	382445	6369577	5
382634	6369618	4	382659	6369349	7	382611	6369138	4	382448	6369589	6
382642	6369614	4	382643	6369351	7	382605	6369174	7	382442	6369600	11
382643	6369601	4	382634	6369351	8	382605	6369188	7	382430	6369600	13
382645	6369591	4	382624	6369351	8	382607	6369204	7	382422	6369598	15
382649	6369579	4	382608	6369350	8	382607	6369221	7	382412	6369594	15
382654	6369570	3	382596	6369350	8	382607	6369232	7	382393	6369591	15
382647	6369561	4	382584	6369349	8	382608	6369253	8	382364	6369593	15
382636	6369560	5	382577	6369331	8	382609	6369267	8	382349	6369596	15
382627	6369560	5	382582	6369319	7	382609	6369283	8	382323	6369595	12
382621	6369559	6	382589	6369307	7	382610	6369299	8	382315	6369594	10
382613	6369558	6	382611	6369306	7	382610	6369314	8	382309	6369594	8
382605	6369557	6	382618	6369307	8	382611	6369326	8	382307	6369606	7
382598	6369548	5	382636	6369310	7	382614	6369364	8	382318	6369624	8
382601	6369537	6	382648	6369311	7	382615	6369377	8	382330	6369631	10
382606	6369525	6	382656	6369311	7	382616	6369395	8	382340	6369631	13
382606	6369516	6	382666	6369311	6	382616	6369410	8	382351	6369632	16
382611	6369509	7	382671	6369305	5	382617	6369432	8	382364	6369633	17
382624	6369511	6	382675	6369296	4	382618	6369449	8	382385	6369633	17
382633	6369512	6	382673	6369281	5	382618	6369473	7	382412	6369630	17
382643	6369513	5	382670	6369270	5	382618	6369490	7	382434	6369622	16
382651	6369510	5	382668	6369260	6	382618	6369520	6	382446	6369619	15
382656	6369501	4	382658	6369246	6	382618	6369537	6	382460	6369620	10
382657	6369496	4	382641	6369245	8	382616	6369558	6	382474	6369630	5
382657	6369488	5	382626	6369245	8	382613	6369583	6	382479	6369657	9
382658	6369481	5	382612	6369246	8	382610	6369599	5	382486	6369670	10
382659	6369474	5	382599	6369245	8	382606	6369615	5	382495	6369681	10
382661	6369464	5	382588	6369245	8	382602	6369632	4	382489	6369692	13
382661	6369457	5	382580	6369241	7	382598	6369652	4	382479	6369695	16
382652	6369450	6	382577	6369234	7	382596	6369666	4	382448	6369684	18
382640	6369451	6	382578	6369226	7	382389	6369504	5	382427	6369692	19
382632	6369454	7	382580	6369217	7	382378	6369507	7	382394	6369699	20
382623	6369458	7	382580	6369209	7	382360	6369518	9	382313	6369548	8
382613	6369460	8	382595	6369202	7	382347	6369521	9	382327	6369558	10
382603	6369460	7	382610	6369204	7	382333	6369519	9	382340	6369560	12
382593	6369457	7	382623	6369204	7	382317	6369519	8	382360	6369568	13

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
382376	6369564	13	382512	6369725	11	382559	6369891	14	382404	6370021	8
382389	6369544	12	382520	6369726	9	382538	6369885	17	382417	6370035	9
382397	6369539	11	382531	6369728	8	382517	6369886	18	382446	6370025	19
382405	6369535	10	382543	6369729	7	382510	6369886	19	382457	6370023	20
382416	6369535	8	382554	6369730	7	382497	6369885	19	382468	6370023	20
382420	6369539	6	382561	6369730	6	382478	6369878	19	382486	6370024	21
382422	6369555	10	382577	6369740	2	382466	6369874	19	382505	6370029	23
382430	6369561	10	382572	6369754	2	382457	6369874	19	382523	6370030	22
382439	6369567	8	382568	6369761	3	382447	6369874	18	382536	6370026	22
382445	6369577	5	382564	6369774	5	382434	6369872	18	382549	6370022	22
382448	6369589	6	382558	6369785	6	382426	6369871	17	382563	6370017	21
382442	6369600	11	382546	6369788	9	382402	6369874	13	382576	6370015	21
382430	6369600	13	382536	6369787	10	382389	6369876	9	382592	6370013	21
382422	6369598	15	382520	6369784	11	382381	6369876	7	382600	6370013	20
382412	6369594	15	382512	6369784	12	382372	6369887	4	382612	6370014	19
382393	6369591	15	382496	6369783	16	382379	6369906	4	382627	6370014	18
382364	6369593	15	382488	6369783	18	382383	6369918	5	382638	6370015	16
382349	6369596	15	382471	6369786	20	382393	6369930	7	382652	6370015	12
382323	6369595	12	382449	6369791	21	382404	6369929	8	382664	6370015	10
382315	6369594	10	382428	6369791	21	382415	6369928	10	382676	6370014	8
382309	6369594	8	382415	6369788	20	382434	6369924	13	382682	6370021	5
382307	6369606	7	382403	6369785	20	382450	6369921	15	382681	6370036	5
382318	6369624	8	382393	6369782	19	382474	6369922	16	382676	6370051	6
382330	6369631	10	382384	6369780	17	382504	6369933	18	382674	6370062	7
382340	6369631	13	382377	6369779	15	382522	6369944	20	382665	6370079	11
382351	6369632	16	382368	6369780	11	382566	6369928	18	382648	6370080	14
382364	6369633	17	382359	6369781	9	382577	6369924	16	382634	6370077	16
382385	6369633	17	382343	6369785	4	382588	6369920	15	382618	6370075	18
382412	6369630	17	382345	6369800	3	382602	6369914	10	382600	6370071	20
382434	6369622	16	382348	6369808	4	382616	6369912	6	382584	6370071	22
382446	6369619	15	382351	6369819	4	382625	6369918	4	382575	6370070	23
382460	6369620	10	382357	6369832	4	382630	6369935	4	382556	6370072	23
382474	6369630	5	382369	6369836	5	382632	6369944	5	382537	6370075	23
382479	6369657	9	382378	6369837	7	382635	6369954	7	382513	6370081	24
382486	6369670	10	382397	6369840	13	382634	6369969	9	382499	6370079	23
382495	6369681	10	382421	6369851	18	382626	6369974	12	382484	6370075	22
382489	6369692	13	382440	6369848	19	382616	6369977	15	382471	6370070	21
382479	6369695	16	382452	6369841	20	382602	6369978	19	382459	6370066	20
382448	6369684	18	382461	6369837	21	382593	6369978	19	382452	6370064	19
382427	6369692	19	382480	6369834	21	382584	6369977	19	382435	6370062	16
382394	6369699	20	382497	6369834	20	382489	6369973	20	382427	6370061	13
382378	6369704	19	382518	6369828	15	382473	6369982	18	382417	6370060	11
382382	6369722	20	382530	6369826	12	382462	6369985	18	382404	6370070	7
382400	6369739	20	382540	6369826	11	382445	6369986	18	382404	6370086	7
382415	6369735	20	382550	6369827	11	382433	6369981	17	382402	6370102	7
382434	6369725	20	382559	6369828	10	382421	6369977	15	382401	6370114	7
382455	6369721	19	382568	6369834	7	382412	6369975	13	382402	6370127	7
382470	6369719	19	382573	6369844	6	382404	6369974	11	382417	6370137	9
382481	6369719	18	382576	6369854	6	382396	6369983	9	382429	6370137	11
382490	6369719	16	382580	6369862	6	382399	6369993	9	382440	6370134	14
382499	6369721	14	382584	6369877	8	382402	6370007	9	382450	6370130	17

(continued)

### Appendix A4-1. Skeeter Lake Bathymetric Data

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
382466	6370124	19	382528	6370230	24	382409	6370327	16	382334	6370354	6
382483	6370125	19	382548	6370225	25	382425	6370325	20	382325	6370365	6
382505	6370125	22	382565	6370223	26	382441	6370322	23	382325	6370380	8
382514	6370124	24	382582	6370224	26	382461	6370321	24	382325	6370396	9
382524	6370122	24	382598	6370226	26	382474	6370320	25	382336	6370421	10
382543	6370117	24	382612	6370227	25	382487	6370317	27	382357	6370419	15
382555	6370114	24	382630	6370229	25	382503	6370315	28	382370	6370417	17
382575	6370113	24	382676	6370232	23	382523	6370314	29	382385	6370416	19
382587	6370114	24	382696	6370234	23	382538	6370313	29	382412	6370417	22
382606	6370119	22	382703	6370233	21	382550	6370313	29	382439	6370418	23
382622	6370120	21	382715	6370230	19	382571	6370312	29	382463	6370420	25
382632	6370119	20	382724	6370226	16	382588	6370312	29	382483	6370420	27
382640	6370119	19	382740	6370226	7	382606	6370309	29	382501	6370417	28
382649	6370118	18	382744	6370234	5	382620	6370310	28	382517	6370414	29
382658	6370118	17	382747	6370244	6	382649	6370317	27	382542	6370412	29
382676	6370118	14	382748	6370252	7	382678	6370322	26	382557	6370411	29
382691	6370129	12	382744	6370270	10	382701	6370325	25	382584	6370409	29
382694	6370136	11	382724	6370269	20	382714	6370324	24	382600	6370407	29
382699	6370151	12	382710	6370262	22	382731	6370319	22	382630	6370404	29
382700	6370170	10	382681	6370252	25	382743	6370317	20	382651	6370406	28
382687	6370173	18	382650	6370250	24	382756	6370316	16	382686	6370406	27
382678	6370172	20	382628	6370252	25	382763	6370315	13	382723	6370401	26
382662	6370167	21	382608	6370258	26	382774	6370315	11	382736	6370401	24
382642	6370167	21	382584	6370260	27	382781	6370315	8	382758	6370404	20
382618	6370165	22	382564	6370259	27	382800	6370321	6	382769	6370406	19
382595	6370162	23	382539	6370260	26	382805	6370331	7	382783	6370408	18
382577	6370157	23	382521	6370262	25	382808	6370345	9	382795	6370410	16
382557	6370155	24	382502	6370266	24	382805	6370365	12	382807	6370411	14
382539	6370160	24	382485	6370268	24	382776	6370360	16	382824	6370410	13
382522	6370165	24	382473	6370267	24	382762	6370356	17	382839	6370407	10
382495	6370170	22	382460	6370265	23	382751	6370355	18	382848	6370419	9
382482	6370172	21	382446	6370264	21	382721	6370357	23	382843	6370442	10
382466	6370174	20	382431	6370262	20	382707	6370357	25	382829	6370465	12
382461	6370174	19	382417	6370263	17	382689	6370357	26	382811	6370463	16
382452	6370173	18	382410	6370263	16	382620	6370367	29	382800	6370462	17
382439	6370170	15	382401	6370262	14	382610	6370366	29	382783	6370462	18
382433	6370169	14	382393	6370261	13	382584	6370362	29	382769	6370463	21
382423	6370166	11	382382	6370259	11	382563	6370359	29	382741	6370468	23
382416	6370163	8	382368	6370257	10	382543	6370360	29	382725	6370471	24
382401	6370173	7	382358	6370255	8	382527	6370360	29	382705	6370468	25
382401	6370187	7	382347	6370261	7	382512	6370359	29	382683	6370464	26
382398	6370202	8	382341	6370268	7	382496	6370359	28	382672	6370466	27
382394	6370216	7	382336	6370278	7	382481	6370358	27	382649	6370464	27
382410	6370238	12	382332	6370288	6	382446	6370353	23	382631	6370462	28
382423	6370236	15	382329	6370297	5	382435	6370354	21	382613	6370460	28
382433	6370234	17	382328	6370308	4	382422	6370353	20	382595	6370462	29
382441	6370232	18	382346	6370325	4	382407	6370352	18	382580	6370461	29
382455	6370225	18	382362	6370330	8	382390	6370349	16	382562	6370458	29
382476	6370221	20	382371	6370332	10	382376	6370349	14	382548	6370454	29
382492	6370224	22	382383	6370331	12	382363	6370349	11	382534	6370450	29
382506	6370228	23	382395	6370327	14	382352	6370350	9	382502	6370449	29

(continued)



**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
382489	6370449	28	382824	6370550	9	382491	6370616	28	382605	6370697	27
382473	6370451	27	382802	6370564	10	382503	6370618	29	382616	6370699	27
382454	6370453	25	382791	6370562	10	382524	6370621	29	382628	6370700	24
382441	6370454	24	382773	6370556	11	382559	6370604	29	382645	6370700	22
382426	6370455	23	382754	6370551	13	382573	6370596	29	382654	6370700	20
382410	6370455	21	382741	6370547	14	382587	6370598	29	382671	6370697	19
382397	6370455	20	382725	6370547	15	382606	6370598	29	382683	6370695	17
382383	6370453	19	382702	6370543	15	382630	6370595	29	382692	6370695	14
382371	6370450	18	382687	6370542	17	382643	6370596	28	382701	6370710	6
382358	6370448	16	382670	6370545	20	382660	6370600	24	382689	6370722	7
382341	6370445	14	382655	6370547	24	382673	6370606	19	382681	6370729	8
382329	6370448	11	382644	6370547	27	382678	6370621	16	382675	6370736	9
382320	6370462	9	382625	6370545	29	382677	6370638	18	382665	6370747	10
382314	6370473	8	382612	6370542	29	382676	6370652	20	382653	6370749	12
382308	6370484	7	382594	6370539	29	382666	6370666	21	382642	6370748	14
382302	6370493	6	382572	6370538	29	382652	6370669	23	382631	6370746	15
382301	6370516	5	382545	6370542	29	382639	6370669	25	382619	6370743	18
382316	6370514	6	382521	6370545	29	382620	6370671	26	382602	6370742	23
382333	6370515	8	382501	6370545	29	382603	6370668	26	382589	6370742	25
382353	6370518	9	382482	6370546	28	382590	6370661	27	382577	6370742	27
382365	6370517	10	382467	6370546	27	382579	6370656	28	382561	6370738	28
382382	6370518	13	382448	6370545	25	382563	6370656	28	382548	6370735	28
382394	6370513	15	382432	6370542	22	382549	6370657	29	382531	6370737	28
382407	6370501	18	382416	6370537	19	382526	6370659	29	382519	6370738	28
382436	6370506	23	382401	6370535	15	382507	6370662	29	382506	6370740	28
382449	6370507	24	382385	6370537	12	382494	6370660	29	382496	6370741	27
382459	6370506	24	382371	6370538	10	382471	6370656	27	382487	6370742	27
382479	6370502	25	382353	6370538	8	382451	6370652	25	382476	6370741	27
382500	6370498	26	382333	6370539	7	382436	6370648	22	382467	6370740	25
382519	6370494	29	382311	6370542	5	382425	6370646	20	382456	6370740	22
382537	6370492	29	382294	6370545	4	382413	6370647	17	382446	6370739	19
382558	6370490	29	382282	6370545	4	382406	6370649	16	382435	6370740	16
382634	6370526	29	382270	6370543	3	382394	6370654	11	382420	6370743	12
382646	6370524	28	382255	6370547	2	382394	6370669	8	382409	6370758	10
382657	6370516	28	382254	6370562	2	382395	6370678	7	382405	6370775	10
382672	6370512	28	382251	6370577	3	382399	6370691	6	382401	6370787	10
382686	6370511	27	382244	6370593	2	382410	6370708	7	382398	6370804	7
382705	6370509	25	382243	6370612	2	382420	6370708	9	382419	6370802	12
382717	6370506	25	382277	6370615	4	382436	6370709	14	382443	6370792	15
382730	6370503	24	382298	6370618	4	382453	6370709	18	382455	6370792	19
382749	6370498	23	382324	6370630	5	382462	6370708	21	382469	6370795	20
382766	6370495	22	382344	6370634	5	382471	6370707	24	382487	6370797	20
382783	6370498	16	382352	6370631	5	382483	6370705	27	382510	6370798	20
382789	6370499	15	382370	6370620	8	382496	6370703	28	382522	6370797	20
382803	6370504	13	382385	6370620	11	382509	6370700	29	382539	6370793	20
382815	6370508	12	382403	6370622	15	382530	6370694	29	382557	6370792	20
382824	6370510	11	382433	6370622	20	382544	6370695	29	382576	6370798	18
382840	6370516	7	382450	6370618	22	382557	6370697	29	382584	6370799	17
382841	6370524	6	382459	6370617	24	382566	6370697	29	382599	6370801	15
382837	6370534	7	382468	6370616	25	382577	6370695	28	382623	6370799	12
382831	6370541	8	382480	6370615	26	382594	6370696	28	382636	6370802	9

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
382642	6370811	7	382500	6370812	18	382407	6369822	18	5733803	455639	4.6
382639	6370825	2	382515	6370798	20	382402	6369808	18	5733804	455654	4.6
382628	6370832	3	382519	6370774	22	382382	6369782	16	5733805	455669	4.7
382616	6370840	5	382514	6370759	24	382377	6369771	15	5733805	455684	4.7
382601	6370841	6	382517	6370744	27	382376	6369753	16	5733804	455699	4.7
382578	6370839	9	382527	6370716	29	382374	6369734	17	5733804	455714	4.7
382553	6370834	12	382532	6370702	29	382374	6369711	19	5733803	455730	4.8
382537	6370838	14	382534	6370685	29	382372	6369699	19	5733801	455745	4.8
382527	6370842	15	382530	6370671	29	382365	6369684	17	5733801	455759	4.8
382511	6370844	15	382533	6370655	29	382364	6369666	17	5733803	455771	4.9
382495	6370844	16	382536	6370641	29	382362	6369653	17	5733804	455783	4.9
382480	6370840	15	382534	6370627	29	382358	6369639	17	5733801	455795	4.9
382463	6370831	14	382533	6370612	29	382351	6369625	16	5733798	455807	4.9
382451	6370829	14	382539	6370586	29	382341	6369611	15	5733794	455819	4.9
382432	6370831	11	382544	6370570	29	382331	6369601	13	5733792	455831	4.9
382416	6370829	10	382555	6370546	29	382323	6369588	12	5733792	455844	5.0
382404	6370825	8	382570	6370520	29	382318	6369577	10	5733791	455856	5.0
382386	6370835	5	382584	6370497	29	382316	6369566	8	5733793	455868	5.0
382382	6370848	3	382588	6370474	29	382314	6369556	8	5733792	455883	5.0
382379	6370866	3	382591	6370438	29	382305	6369542	7	5733792	455898	5.0
382377	6370877	2	382579	6370410	29	5730113	472529	3.9	5733791	455914	4.9
382382	6370893	2	382574	6370397	29	5730126	472532	3.8	5733792	455929	4.9
382403	6370900	5	382566	6370377	29	5730141	472535	3.8	5733794	455944	5.0
382421	6370896	8	382565	6370357	29	5730155	472538	3.9	5733796	455959	5.0
382432	6370896	10	382562	6370337	29	5730168	472541	3.8	5733800	455974	5.0
382444	6370898	11	382549	6370321	29	5730182	472545	3.8	5733803	455989	5.0
382459	6370899	11	382541	6370305	29	5730195	472550	3.7	5733805	456004	5.0
382474	6370896	12	382539	6370276	27	5730208	472555	3.3	5733805	456019	5.0
382507	6370900	10	382538	6370264	26	5730220	472561	3.2	5733803	456034	5.0
382516	6370902	9	382535	6370250	25	5730230	472571	3.0	5733799	456049	5.0
382530	6370903	7	382539	6370230	24	5730239	472582	2.9	5733796	456064	5.0
382541	6370902	6	382535	6370209	24	5730243	472595	2.8	5733791	456078	5.0
382549	6370905	5	382530	6370195	24	5730241	472610	2.8	5733787	456093	5.1
382550	6370923	2	382530	6370167	24	5730237	472623	2.7	5733783	456108	5.1
382540	6370933	3	382525	6370147	24	5730234	472637	2.6	5733780	456123	5.1
382526	6370938	4	382522	6370130	24	5730230	472652	2.5	5733778	456138	5.1
382512	6370939	5	382519	6370113	24	5730227	472667	2.3	5733778	456154	5.1
382500	6370938	6	382508	6370092	24	5730226	472681	4.4	5733779	456169	5.1
382483	6370934	8	382495	6370083	23	5733797	455442	3.9	5733779	456184	5.2
382472	6370934	8	382488	6370063	23	5733797	455457	4.2	5733780	456199	5.1
382461	6370934	8	382482	6370045	23	5733797	455472	4.1	5733780	456215	5.1
382447	6370936	7	382478	6370032	21	5733797	455487	4.0	5733781	456230	5.2
382437	6370937	6	382464	6370007	19	5733798	455502	3.5	5733782	456245	5.2
382454	6370921	9	382456	6369977	17	5733797	455517	3.8	5733783	456260	5.2
382460	6370905	11	382453	6369960	17	5733798	455532	4.1	5733784	456275	5.2
382460	6370890	12	382450	6369947	16	5733799	455548	4.2	5733785	456291	5.2
382464	6370881	12	382448	6369932	15	5733800	455563	4.3	5733784	456306	5.2
382478	6370862	14	382447	6369908	15	5733801	455578	4.3	5733784	456321	5.2
382481	6370837	15	382443	6369889	16	5733801	455594	4.3	5733785	456336	5.2
382480	6370829	15	382432	6369873	17	5733802	455609	4.3	5733788	456367	5.2
382489	6370818	16	382413	6369835	18	5733801	455624	4.5	5733790	456382	5.2

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733794	456396	5.2	5733953	457180	2.0	5733540	457477	5.4	5733409	457230	5.3
5733795	456411	5.2	5733954	457194	3.0	5733525	457480	5.3	5733424	457228	5.4
5733797	456426	5.2	5733960	457208	3.8	5733511	457482	5.4	5733438	457227	5.3
5733800	456441	5.2	5733968	457221	3.9	5733497	457484	5.4	5733453	457226	5.3
5733805	456471	5.2	5733974	457235	3.9	5733482	457487	5.4	5733468	457225	5.3
5733807	456485	5.2	5733978	457249	4.0	5733468	457488	5.4	5733483	457223	5.3
5733808	456500	5.2	5733984	457264	4.0	5733454	457487	5.3	5733498	457222	5.3
5733808	456516	5.2	5733990	457277	4.0	5733439	457486	5.4	5733512	457222	5.3
5733808	456530	5.2	5733997	457291	3.9	5733425	457487	5.4	5733527	457221	5.3
5733808	456545	5.2	5734002	457305	3.9	5733410	457488	5.4	5733541	457220	5.4
5733808	456575	5.2	5734008	457319	3.8	5733396	457488	5.4	5733555	457217	5.3
5733810	456590	5.2	5734011	457334	3.7	5733381	457487	5.3	5733570	457216	5.4
5733813	456604	5.3	5734012	457348	3.6	5733367	457486	5.4	5733585	457215	5.4
5733815	456619	5.2	5734014	457363	3.5	5733353	457484	5.4	5733599	457214	5.4
5733819	456634	5.2	5734014	457378	3.2	5733339	457483	5.3	5733614	457214	5.4
5733824	456648	5.2	5734013	457393	2.9	5733324	457481	5.3	5733628	457213	5.4
5733826	456662	5.2	5734009	457407	2.5	5733310	457482	5.3	5733643	457212	5.4
5733828	456677	5.2	5734006	457422	3.1	5733295	457485	5.1	5733657	457211	5.4
5733829	456692	5.2	5734007	457436	3.4	5733282	457489	4.8	5733686	457209	5.3
5733829	456708	5.2	5734000	457448	3.4	5733267	457493	4.6	5733702	457210	5.3
5733832	456722	5.2	5733986	457452	3.9	5733253	457496	4.3	5733716	457208	5.4
5733837	456737	5.2	5733972	457450	4.2	5733239	457499	4.2	5733730	457205	5.4
5733841	456751	5.2	5733958	457447	4.5	5733228	457493	3.6	5733745	457202	5.4
5733845	456765	5.2	5733943	457446	4.6	5733224	457479	3.0	5733759	457200	5.3
5733848	456780	5.2	5733928	457446	4.8	5733223	457465	2.8	5733773	457199	5.4
5733851	456794	5.2	5733914	457447	5.1	5733225	457451	2.6	5733788	457196	5.4
5733856	456809	5.2	5733899	457448	5.2	5733228	457437	2.7	5733802	457193	5.4
5733859	456823	5.2	5733885	457451	5.3	5733232	457423	2.9	5733816	457190	5.3
5733860	456838	5.1	5733871	457455	5.3	5733237	457410	3.2	5733831	457189	5.4
5733861	456853	5.1	5733856	457458	5.4	5733239	457396	3.4	5733846	457187	5.4
5733864	456867	5.1	5733842	457460	5.4	5733238	457381	3.3	5733861	457187	5.3
5733865	456882	5.1	5733828	457462	5.4	5733237	457367	3.1	5733875	457187	5.3
5733870	456896	5.2	5733813	457465	5.4	5733237	457353	3.1	5733890	457187	4.9
5733874	456911	5.1	5733799	457467	5.4	5733237	457338	3.0	5733905	457187	4.6
5733881	456925	5.1	5733784	457470	5.4	5733237	457324	2.7	5733918	457181	4.1
5733887	456938	5.0	5733770	457471	5.3	5733236	457310	2.5	5733919	457168	3.5
5733890	456952	5.0	5733755	457473	5.4	5733235	457296	2.5	5733915	457155	3.1
5733893	456967	5.0	5733741	457476	5.4	5733232	457283	2.5	5733919	457141	3.1
5733898	456981	5.0	5733727	457477	5.4	5733227	457269	2.4	5733925	457129	3.1
5733899	456996	4.9	5733712	457478	5.4	5733224	457255	2.4	5733931	457116	2.8
5733901	457026	4.9	5733698	457478	5.4	5733223	457242	2.7	5733935	457103	2.8
5733905	457040	4.6	5733683	457480	5.4	5733233	457233	3.0	5733939	457089	2.7
5733912	457054	4.5	5733668	457480	5.4	5733247	457233	4.0	5733943	457076	2.6
5733917	457068	4.3	5733654	457478	5.4	5733262	457234	4.4	5733948	457062	2.6
5733923	457081	4.2	5733640	457476	5.4	5733276	457235	4.8	5733951	457048	2.6
5733930	457095	3.8	5733625	457475	5.4	5733291	457236	5.0	5733954	457035	2.6
5733936	457108	3.2	5733611	457475	5.4	5733306	457235	5.2	5733956	457020	2.7
5733944	457121	2.5	5733597	457473	5.4	5733320	457235	5.4	5733958	457006	2.8
5733949	457135	1.8	5733582	457472	5.4	5733335	457235	5.4	5733959	456992	3.0
5733951	457150	4.0	5733568	457473	5.4	5733380	457234	5.4	5733960	456978	2.9
5733953	457165	3.4	5733554	457475	5.4	5733394	457232	5.4	5733964	456965	3.2

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733958	456954	3.2	5733185	456955	3.3	5733628	456726	5.3	5733897	456461	4.4
5733944	456956	3.9	5733183	456941	3.1	5733641	456721	5.3	5733883	456464	4.5
5733930	456958	4.3	5733182	456927	2.8	5733654	456715	5.3	5733869	456462	4.7
5733916	456960	4.6	5733181	456913	2.5	5733667	456710	5.3	5733855	456463	4.7
5733901	456962	4.9	5733182	456899	2.5	5733681	456706	5.3	5733841	456463	4.9
5733887	456962	4.9	5733183	456885	2.6	5733695	456702	5.3	5733827	456462	5.0
5733858	456958	5.0	5733183	456871	2.8	5733708	456697	5.3	5733812	456461	5.1
5733844	456957	5.1	5733181	456856	2.7	5733722	456696	5.3	5733798	456459	5.2
5733815	456957	5.2	5733179	456842	2.8	5733737	456695	5.3	5733784	456458	5.2
5733801	456958	5.3	5733176	456828	2.7	5733751	456694	5.3	5733770	456457	5.2
5733787	456960	5.3	5733175	456814	2.7	5733765	456696	5.3	5733755	456458	5.3
5733772	456963	5.3	5733173	456801	3.3	5733780	456698	5.3	5733741	456458	5.3
5733757	456962	5.3	5733169	456787	4.0	5733794	456699	5.3	5733726	456457	5.3
5733743	456960	5.4	5733165	456773	4.3	5733808	456698	5.3	5733712	456458	5.3
5733714	456959	5.3	5733161	456760	4.4	5733822	456695	5.3	5733698	456459	5.3
5733700	456958	5.3	5733154	456747	4.3	5733835	456692	5.2	5733683	456459	5.3
5733686	456956	5.3	5733148	456734	4.2	5733850	456690	5.2	5733669	456460	5.3
5733671	456956	5.3	5733144	456721	3.8	5733864	456688	5.2	5733654	456459	5.4
5733657	456956	5.3	5733154	456714	3.0	5733878	456688	5.1	5733640	456458	5.3
5733642	456956	5.3	5733169	456715	4.0	5733893	456687	5.1	5733626	456456	5.3
5733628	456957	5.3	5733183	456716	4.5	5733907	456686	5.0	5733612	456453	5.3
5733613	456958	5.3	5733197	456718	4.9	5733922	456686	4.9	5733598	456452	5.3
5733599	456958	5.3	5733211	456720	5.0	5733937	456684	4.9	5733583	456451	5.3
5733584	456959	5.3	5733226	456720	5.2	5733951	456683	4.7	5733569	456449	5.3
5733570	456960	5.3	5733240	456718	5.3	5733965	456681	4.6	5733555	456448	5.3
5733555	456961	5.3	5733255	456718	5.3	5733980	456679	4.4	5733541	456447	5.3
5733541	456963	5.3	5733269	456719	5.3	5733993	456678	4.2	5733527	456445	5.3
5733526	456965	5.3	5733283	456720	5.3	5734008	456677	3.9	5733512	456444	5.3
5733512	456967	5.4	5733298	456722	5.4	5734021	456674	3.4	5733498	456444	5.3
5733497	456970	5.3	5733312	456724	5.3	5734022	456661	2.7	5733484	456445	5.3
5733483	456975	5.3	5733327	456725	5.3	5734021	456647	2.8	5733469	456446	5.3
5733470	456980	5.3	5733341	456726	5.3	5734020	456634	3.0	5733455	456446	5.3
5733456	456985	5.3	5733356	456726	5.3	5734020	456620	3.0	5733441	456446	5.3
5733428	456994	5.3	5733370	456729	5.3	5734021	456606	3.1	5733426	456445	5.3
5733414	456999	5.3	5733384	456730	5.3	5734022	456592	3.1	5733413	456442	5.3
5733400	456998	5.3	5733399	456732	5.3	5734022	456579	3.1	5733398	456438	5.3
5733385	456999	5.3	5733413	456731	5.3	5734023	456565	3.1	5733385	456434	5.3
5733371	456999	5.3	5733427	456730	5.3	5734023	456551	3.1	5733371	456433	5.3
5733357	456999	5.4	5733442	456728	5.3	5734024	456537	2.9	5733357	456435	5.2
5733342	456998	5.3	5733457	456727	5.3	5734026	456523	2.8	5733343	456438	5.4
5733328	456999	5.3	5733470	456727	5.3	5734026	456509	2.7	5733329	456440	5.3
5733313	457000	5.4	5733485	456727	5.3	5734022	456496	2.4	5733314	456442	5.3
5733299	457001	5.3	5733500	456727	5.3	5734017	456483	2.3	5733285	456444	5.3
5733285	456998	5.3	5733514	456728	5.3	5734008	456472	2.0	5733271	456446	5.3
5733271	456995	5.3	5733529	456728	5.3	5733997	456463	2.5	5733257	456447	5.3
5733257	456991	5.4	5733543	456729	5.3	5733984	456459	2.7	5733243	456446	5.3
5733243	456987	5.2	5733557	456730	5.3	5733970	456458	3.0	5733229	456444	5.3
5733230	456982	5.1	5733571	456730	5.3	5733955	456458	3.4	5733214	456443	5.2
5733216	456978	4.9	5733586	456733	5.3	5733940	456458	3.7	5733200	456443	5.1
5733201	456974	4.5	5733600	456731	5.3	5733926	456458	3.9	5733185	456442	4.9
5733189	456968	4.0	5733614	456729	5.3	5733912	456459	4.1	5733171	456442	4.7

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733159	456437	4.4	5733704	456201	5.2	5733853	455971	4.7	5733160	455899	2.8
5733156	456423	4.2	5733718	456199	5.2	5733839	455973	4.7	5733160	455885	2.9
5733156	456409	4.0	5733732	456197	5.3	5733824	455974	4.9	5733161	455870	3.2
5733154	456395	3.9	5733747	456198	5.2	5733810	455974	4.9	5733161	455856	3.4
5733153	456381	3.7	5733761	456197	5.2	5733795	455974	5.0	5733164	455842	3.3
5733154	456367	3.3	5733776	456194	5.2	5733781	455975	5.0	5733169	455829	3.1
5733154	456353	2.9	5733790	456191	5.2	5733767	455976	5.1	5733177	455817	3.0
5733157	456340	2.6	5733804	456188	5.1	5733753	455974	5.1	5733184	455804	3.1
5733162	456326	2.8	5733819	456185	5.1	5733739	455972	5.1	5733190	455791	2.9
5733163	456312	3.1	5733833	456184	5.0	5733725	455967	5.1	5733197	455778	2.7
5733164	456298	2.8	5733848	456183	5.0	5733711	455966	5.2	5733203	455765	2.5
5733165	456284	2.5	5733862	456182	5.0	5733697	455964	5.1	5733211	455754	2.2
5733165	456270	2.4	5733876	456183	5.0	5733682	455962	5.2	5733223	455744	2.6
5733165	456256	2.6	5733891	456185	4.9	5733668	455959	5.3	5733232	455733	2.9
5733164	456242	3.2	5733905	456184	4.9	5733654	455957	5.3	5733241	455722	2.9
5733161	456228	3.4	5733920	456184	4.8	5733640	455954	5.3	5733254	455717	2.9
5733161	456214	2.9	5733935	456184	4.7	5733625	455951	5.3	5733269	455718	3.3
5733165	456201	2.8	5733949	456185	4.6	5733611	455949	5.2	5733284	455716	4.0
5733170	456188	3.1	5733964	456184	4.5	5733597	455947	5.3	5733299	455716	4.2
5733181	456182	3.2	5733978	456183	4.3	5733582	455948	5.3	5733314	455717	4.4
5733195	456180	3.9	5733993	456182	4.2	5733568	455950	5.2	5733328	455718	4.5
5733210	456181	4.2	5734008	456180	4.0	5733553	455954	5.2	5733343	455719	4.6
5733224	456185	4.5	5734021	456178	3.6	5733539	455955	5.3	5733358	455720	4.7
5733238	456187	4.6	5734024	456165	3.2	5733524	455956	5.2	5733373	455719	4.8
5733254	456189	4.8	5734025	456151	3.4	5733510	455956	5.3	5733388	455720	4.8
5733268	456189	5.0	5734026	456137	3.6	5733495	455956	5.3	5733403	455720	4.9
5733283	456191	5.1	5734026	456123	3.8	5733481	455955	5.3	5733417	455719	4.9
5733297	456191	5.2	5734029	456109	4.0	5733466	455954	5.2	5733432	455719	5.0
5733312	456190	5.2	5734030	456096	4.0	5733452	455953	5.2	5733447	455720	5.0
5733326	456192	5.3	5734031	456082	4.1	5733437	455952	5.2	5733462	455720	5.1
5733355	456196	5.2	5734031	456068	4.1	5733422	455953	5.3	5733477	455721	5.1
5733370	456198	5.2	5734036	456055	4.1	5733407	455953	5.2	5733492	455720	5.1
5733384	456198	5.3	5734041	456041	4.0	5733393	455953	5.2	5733507	455718	5.1
5733399	456198	5.3	5734043	456028	3.9	5733377	455954	5.2	5733521	455716	5.2
5733413	456199	5.3	5734045	456014	3.7	5733363	455953	5.2	5733536	455713	5.2
5733428	456200	5.3	5734046	456000	3.5	5733349	455950	5.2	5733550	455710	5.2
5733457	456197	5.3	5734045	455986	3.2	5733335	455947	5.1	5733565	455708	5.2
5733471	456196	5.2	5734042	455973	3.0	5733320	455945	5.1	5733580	455707	5.1
5733486	456196	5.3	5734037	455958	2.8	5733306	455944	5.1	5733610	455708	5.1
5733500	456197	5.3	5734024	455954	2.6	5733291	455943	5.0	5733625	455709	5.1
5733515	456196	5.3	5734011	455959	3.0	5733276	455942	5.0	5733640	455710	5.1
5733529	456194	5.2	5733998	455964	3.6	5733262	455942	4.9	5733654	455712	5.1
5733573	456193	5.3	5733983	455966	3.9	5733247	455944	4.8	5733669	455715	5.1
5733587	456195	5.2	5733969	455966	4.2	5733233	455946	4.7	5733684	455717	5.1
5733602	456197	5.3	5733955	455966	4.3	5733218	455948	4.5	5733699	455718	5.1
5733616	456198	5.3	5733940	455966	4.4	5733204	455950	4.4	5733713	455716	5.0
5733631	456199	5.3	5733926	455967	4.4	5733189	455951	4.2	5733728	455713	5.0
5733645	456199	5.3	5733911	455967	4.6	5733175	455951	3.9	5733743	455710	4.9
5733660	456199	5.2	5733897	455967	4.6	5733165	455941	3.5	5733757	455709	5.0
5733675	456200	5.3	5733882	455969	4.6	5733162	455928	2.7	5733772	455707	4.9
5733689	456201	5.3	5733868	455970	4.7	5733160	455913	2.9	5733787	455706	4.9

(continued)

### Appendix A4-1. Skeeter Lake Bathymetric Data

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733802	455705	4.8	5733589	455473	5.0	5733323	455220	4.2	5733822	454987	4.9
5733816	455702	4.7	5733575	455473	5.0	5733336	455225	4.3	5733816	454976	4.6
5733831	455699	4.7	5733560	455473	5.0	5733350	455226	4.4	5733802	454977	1.4
5733845	455700	4.6	5733546	455474	5.0	5733364	455226	4.5	5733788	454977	2.9
5733860	455700	4.6	5733531	455475	5.0	5733378	455227	4.5	5733774	454975	3.4
5733875	455701	4.5	5733517	455476	4.9	5733392	455228	4.5	5733760	454979	3.7
5733890	455703	4.4	5733503	455477	4.9	5733406	455227	4.5	5733745	454982	4.0
5733905	455702	4.3	5733488	455479	4.9	5733420	455229	4.5	5733731	454984	4.1
5733920	455701	4.2	5733474	455481	4.9	5733435	455229	4.5	5733717	454984	4.3
5733934	455700	4.1	5733460	455482	4.9	5733450	455229	4.6	5733703	454984	4.3
5733950	455700	3.9	5733445	455482	4.8	5733464	455230	4.6	5733688	454983	4.4
5733964	455699	3.7	5733431	455482	4.8	5733478	455232	4.6	5733674	454984	4.4
5733977	455694	3.5	5733416	455482	4.8	5733493	455233	4.6	5733660	454987	4.4
5733973	455681	2.8	5733402	455482	4.7	5733508	455233	4.6	5733645	454989	4.4
5733965	455670	2.6	5733387	455482	4.6	5733522	455232	4.6	5733631	454991	4.4
5733964	455656	2.6	5733373	455481	4.6	5733536	455230	4.7	5733617	454991	4.4
5733966	455642	2.3	5733359	455480	4.5	5733551	455231	4.7	5733602	454989	4.4
5733965	455629	1.9	5733344	455478	4.3	5733566	455231	4.7	5733589	454986	4.4
5733961	455615	1.8	5733330	455478	4.0	5733580	455229	4.7	5733575	454982	4.4
5733957	455602	1.9	5733315	455477	3.4	5733594	455227	4.7	5733561	454978	4.4
5733954	455588	2.0	5733305	455470	2.7	5733609	455226	4.7	5733547	454976	4.4
5733952	455575	1.9	5733300	455458	2.6	5733623	455224	4.7	5733532	454976	4.4
5733949	455546	2.1	5733290	455458	3.1	5733638	455224	4.7	5733518	454977	4.4
5733941	455520	1.5	5733398	455480	2.6	5733653	455224	4.7	5733504	454978	4.4
5733936	455506	1.7	5733385	455475	4.6	5733667	455222	4.7	5733489	454978	4.4
5733931	455494	2.0	5733371	455475	4.5	5733682	455221	4.7	5733475	454977	4.4
5733928	455480	2.5	5733356	455476	4.5	5733696	455223	4.6	5733460	454977	4.4
5733926	455466	2.7	5733341	455477	4.2	5733711	455225	4.6	5733446	454977	4.4
5733914	455461	2.8	5733328	455473	3.8	5733725	455226	4.6	5733431	454978	4.3
5733899	455463	3.1	5733317	455464	3.5	5733740	455225	4.6	5733417	454979	4.3
5733885	455462	3.4	5733303	455459	3.5	5733754	455224	4.5	5733403	454979	4.3
5733871	455466	3.6	5733291	455453	3.1	5733769	455223	4.4	5733388	454976	4.3
5733857	455471	3.6	5733284	455441	2.9	5733784	455220	4.2	5733376	454969	4.2
5733844	455478	3.7	5733281	455427	3.1	5733798	455217	4.1	5733364	454961	4.1
5733831	455483	3.8	5733276	455414	3.3	5733811	455211	3.8	5733357	454949	3.9
5733817	455487	3.8	5733270	455401	3.4	5733817	455200	3.3	5733349	454937	3.5
5733803	455485	3.8	5733265	455388	3.3	5733813	455187	1.9	5733351	454924	2.6
5733789	455483	3.8	5733264	455373	3.2	5733807	455175	2.4	5733361	454914	2.2
5733775	455481	3.4	5733263	455359	3.2	5733810	455161	3.0	5733367	454901	2.5
5733761	455481	3.4	5733264	455345	3.2	5733818	455149	3.3	5733368	454887	2.2
5733747	455478	3.3	5733265	455330	3.6	5733825	455137	3.1	5733370	454873	1.7
5733732	455477	3.7	5733264	455316	3.8	5733830	455125	2.6	5733378	454863	2.9
5733718	455478	4.0	5733262	455301	3.9	5733831	455111	2.3	5733391	454856	1.6
5733703	455482	3.9	5733259	455288	3.9	5733827	455098	2.2	5733397	454845	2.7
5733689	455483	4.3	5733259	455273	3.8	5733823	455085	2.5	5733391	454833	3.2
5733675	455483	4.5	5733260	455259	3.7	5733821	455071	2.6	5733385	454821	2.8
5733661	455482	4.7	5733264	455246	3.6	5733821	455057	2.6	5733386	454807	2.5
5733646	455480	4.8	5733270	455233	3.6	5733823	455043	2.4	5733389	454794	2.4
5733632	455478	5.0	5733282	455227	3.4	5733824	455029	2.4	5733392	454787	2.7
5733618	455476	5.0	5733295	455223	3.7	5733824	455015	2.3	5733395	454784	2.7
5733604	455475	5.0	5733309	455219	4.0	5733822	455001	2.1	5733397	454783	2.9

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733399	454782	3.2	5733456	454544	1.6	5733539	454263	2.5	5733577	454103	2.2
5733401	454783	3.4	5733467	454540	2.0	5733553	454262	2.3	5733580	454089	2.0
5733402	454784	3.3	5733469	454527	2.6	5733573	454250	2.3	5733584	454075	1.8
5733403	454785	3.5	5733466	454513	2.7	5733563	454226	1.8	5733590	454062	1.8
5733404	454787	3.6	5733461	454500	2.7	5733552	454218	1.8	5733598	454050	1.9
5733406	454789	3.6	5733462	454487	2.6	5733545	454206	2.0	5733607	454039	1.9
5733411	454789	3.6	5733473	454484	2.7	5733540	454193	2.0	5733617	454030	1.9
5733409	454782	3.6	5733487	454488	3.0	5733535	454181	2.0	5733629	454022	1.8
5733395	454780	3.6	5733501	454489	3.1	5733525	454172	2.2	5733641	454016	1.8
5733390	454770	3.0	5733516	454493	3.2	5733518	454160	2.3	5733652	454009	1.7
5733397	454760	2.0	5733545	454495	3.3	5733516	454148	2.1	5733664	454003	1.7
5733407	454749	2.6	5733559	454495	3.2	5733521	454135	2.0	5733676	453997	1.5
5733414	454736	3.0	5733573	454494	3.1	5733527	454123	1.9	5733684	453990	1.5
5733420	454724	3.2	5733587	454494	2.6	5733536	454112	1.8	5733690	453983	1.5
5733426	454711	2.8	5733601	454492	2.5	5733545	454102	2.9	5733693	453976	1.5
5733439	454710	2.2	5733613	454488	2.4	5733559	454101	3.4	5733693	453957	1.5
5733467	454719	2.5	5733621	454470	1.8	5733572	454098	1.6	5733693	453948	1.4
5733482	454722	3.6	5733612	454460	1.7	5733587	454095	1.6	5733692	453939	1.4
5733496	454725	3.8	5733602	454452	1.9	5733615	454095	2.0	5733690	453922	1.4
5733510	454730	3.8	5733597	454439	2.0	5733627	454090	1.6	5733688	453913	1.3
5733525	454732	3.9	5733599	454426	2.3	5733631	454076	1.4	5733688	453905	1.0
5733540	454734	3.9	5733609	454400	2.6	5733551	454184	4.5	5733684	453892	1.0
5733554	454736	3.9	5733617	454388	2.4	5733546	454213	2.0	5733677	453891	0.9
5733569	454737	3.9	5733613	454366	1.9	5733545	454227	2.0	5733672	453898	1.2
5733584	454736	3.9	5733590	454368	1.7	5733543	454242	2.0	5733673	453909	1.2
5733599	454738	3.9	5733581	454380	5.4	5733539	454255	2.2	5733675	453921	1.2
5733613	454739	3.8	5733573	454392	2.1	5733533	454269	2.3	5733677	453935	1.2
5733628	454740	3.8	5733562	454401	2.5	5733523	454278	2.5	5733679	453947	0.9
5733643	454739	3.7	5733547	454402	2.8	5733509	454277	2.6	5733674	453971	0.9
5733657	454736	3.8	5733532	454404	2.9	5733497	454270	2.6	5733665	453982	1.1
5733672	454734	3.7	5733518	454407	2.9	5733485	454262	2.7	5733660	453995	1.2
5733686	454733	3.6	5733504	454406	2.9	5733477	454251	2.8	5733657	454010	1.5
5733701	454731	3.5	5733489	454407	2.9	5733472	454237	2.9	5733654	454024	1.6
5733716	454730	3.5	5733475	454408	3.0	5733474	454223	2.4	5733644	454049	1.0
5733731	454729	3.6	5733460	454409	3.0	5733478	454210	2.3	5733635	454059	1.6
5733745	454728	3.5	5733446	454408	3.0	5733485	454197	2.3	5733616	454081	0.9
5733760	454726	3.4	5733437	454397	2.8	5733493	454185	2.3	5733608	454092	1.6
5733774	454722	3.2	5733431	454386	2.6	5733501	454173	2.3	5733604	454106	1.7
5733787	454716	3.0	5733436	454373	2.5	5733511	454162	2.3	5733601	454120	1.8
5733800	454709	2.5	5733442	454360	2.5	5733521	454152	2.2	5733599	454134	1.8
5733802	454696	2.0	5733446	454346	2.5	5733532	454143	2.1	5733595	454149	1.7
5733796	454670	3.1	5733453	454334	2.6	5733546	454138	2.1	5733592	454163	1.5
5733790	454663	2.6	5733456	454320	2.6	5733560	454140	2.1	5733565	454213	1.4
5733784	454662	1.8	5733458	454305	2.6	5733574	454145	2.3	5733560	454227	1.6
5733773	454657	1.8	5733461	454291	2.5	5733588	454150	2.1	5733558	454241	1.9
5733762	454652	1.9	5733463	454277	2.5	5733602	454154	1.8	5733559	454255	2.1
5733749	454648	1.9	5733467	454264	2.5	5733614	454150	1.7	5733565	454269	2.1
5733737	454642	1.7	5733481	454264	2.5	5733613	454137	0.9	5733572	454282	2.2
5733453	454555	3.0	5733495	454264	2.8	5733605	454126	1.2	5733577	454295	2.1
5733448	454556	1.9	5733509	454263	2.6	5733592	454121	1.7	5733586	454307	2.1
5733446	454550	3.8	5733524	454263	2.5	5733579	454116	1.9	5733594	454319	1.9

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733603	454331	1.6	5733638	454653	2.4	5733555	455426	4.9	5733591	456366	5.3
5733612	454342	1.3	5733623	454655	2.7	5733556	455441	5.0	5733591	456378	5.3
5733615	454356	1.5	5733609	454658	3.0	5733555	455456	5.0	5733590	456393	5.2
5733618	454369	1.6	5733595	454661	3.1	5733554	455471	5.0	5733590	456408	5.2
5733619	454383	1.9	5733582	454666	3.2	5733554	455485	5.0	5733591	456423	5.2
5733620	454398	2.0	5733568	454670	3.6	5733554	455500	5.1	5733592	456438	5.2
5733627	454410	2.1	5733554	454672	3.7	5733557	455529	5.2	5733593	456453	5.2
5733627	454424	2.2	5733541	454675	3.8	5733560	455544	5.2	5733593	456468	5.2
5733626	454439	2.4	5733540	454689	3.8	5733565	455572	5.1	5733597	456483	5.2
5733625	454454	2.3	5733539	454704	3.9	5733567	455587	5.1	5733597	456498	5.3
5733618	454482	1.9	5733539	454719	3.9	5733569	455601	5.1	5733596	456513	5.2
5733614	454497	1.8	5733539	454733	4.0	5733571	455631	5.2	5733595	456528	5.2
5733612	454512	2.4	5733539	454748	4.0	5733578	455675	5.2	5733594	456543	5.2
5733611	454526	2.7	5733539	454762	4.1	5733570	455703	5.2	5733593	456558	5.2
5733609	454541	2.9	5733541	454777	4.1	5733568	455717	5.2	5733592	456574	5.2
5733610	454556	2.9	5733540	454792	4.1	5733569	455732	5.2	5733592	456589	5.2
5733610	454570	2.8	5733539	454806	4.1	5733570	455747	5.2	5733594	456603	5.2
5733609	454585	2.6	5733539	454821	4.1	5733572	455806	5.2	5733595	456619	5.2
5733607	454600	2.3	5733540	454836	4.1	5733571	455821	5.2	5733596	456634	5.3
5733606	454614	2.1	5733539	454865	4.2	5733573	455836	5.2	5733597	456648	5.2
5733606	454629	2.5	5733539	454880	4.3	5733574	455850	5.2	5733597	456664	5.3
5733605	454643	3.1	5733539	454894	4.3	5733581	455909	5.2	5733596	456679	5.3
5733605	454658	3.2	5733540	454909	4.4	5733580	455938	5.1	5733594	456694	5.3
5733606	454673	3.1	5733542	454924	4.4	5733579	455953	5.2	5733593	456709	5.3
5733606	454687	2.8	5733545	454938	4.4	5733579	455968	5.3	5733590	456724	5.3
5733608	454702	2.1	5733547	454953	4.4	5733579	455983	5.1	5733589	456738	5.3
5733609	454717	2.0	5733548	454968	4.4	5733579	455997	5.1	5733586	456753	5.2
5733608	454732	2.4	5733550	454982	4.5	5733579	456012	5.1	5733585	456768	5.3
5733608	454761	3.7	5733550	455012	4.5	5733579	456027	5.2	5733586	456783	5.2
5733610	454775	4.0	5733550	455027	4.5	5733581	456041	5.3	5733585	456798	5.2
5733613	454790	4.0	5733550	455042	4.6	5733582	456057	5.2	5733585	456813	5.3
5733620	454801	4.0	5733552	455057	4.6	5733583	456072	5.2	5733585	456828	5.3
5733629	454791	4.1	5733561	455085	4.6	5733585	456101	5.2	5733586	456843	5.3
5733639	454782	4.1	5733564	455099	4.6	5733585	456116	5.2	5733585	456858	5.3
5733651	454774	4.1	5733566	455129	4.6	5733585	456131	5.2	5733583	456873	5.3
5733664	454767	4.0	5733566	455144	4.7	5733586	456146	5.2	5733581	456888	5.3
5733671	454756	3.9	5733566	455159	4.7	5733586	456161	5.2	5733579	456903	5.3
5733677	454744	3.9	5733566	455174	4.7	5733587	456176	5.2	5733580	456918	5.3
5733687	454734	3.8	5733564	455203	4.7	5733586	456191	5.2	5733580	456933	5.3
5733698	454725	3.6	5733562	455218	4.8	5733587	456205	5.2	5733581	456948	5.3
5733709	454716	3.6	5733560	455233	4.8	5733588	456220	5.2	5733584	456962	5.3
5733719	454706	3.5	5733557	455248	4.7	5733589	456235	5.2	5733586	456977	5.3
5733727	454695	3.1	5733556	455263	4.8	5733590	456250	5.2	5733588	456992	5.3
5733729	454683	2.9	5733555	455278	4.8	5733592	456265	5.2	5733590	457006	5.3
5733722	454672	2.6	5733553	455293	4.8	5733592	456278	5.2	5733592	457021	5.3
5733718	454659	2.2	5733553	455308	4.8	5733592	456290	5.3	5733591	457036	5.3
5733708	454651	1.8	5733554	455322	4.8	5733590	456303	5.3	5733591	457051	5.3
5733694	454649	1.9	5733555	455337	4.9	5733589	456316	5.2	5733594	457065	5.3
5733680	454652	2.0	5733552	455352	4.9	5733589	456328	5.3	5733597	457080	5.3
5733666	454653	2.2	5733553	455382	4.9	5733589	456341	5.3	5733598	457095	5.3
5733652	454653	2.2	5733554	455397	4.9	5733590	456353	5.3	5733599	457111	5.3

(continued)



**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733599	457126	5.3	5733636	457904	5.4	5733757	458673	5.4	5733778	459412	5.5
5733600	457141	5.3	5733641	457918	5.4	5733759	458687	5.4	5733778	459427	5.5
5733601	457156	5.4	5733645	457932	5.4	5733760	458702	5.4	5733778	459442	5.5
5733605	457171	5.3	5733647	457947	5.4	5733762	458716	5.4	5733778	459457	5.5
5733607	457186	5.3	5733648	457961	5.4	5733764	458730	5.4	5733778	459473	5.5
5733609	457201	5.3	5733650	457977	5.4	5733765	458745	5.4	5733777	459487	5.5
5733612	457215	5.3	5733650	457992	5.4	5733763	458760	5.4	5733777	459503	5.5
5733613	457230	5.3	5733652	458006	5.4	5733761	458774	5.4	5733777	459518	5.5
5733613	457243	5.3	5733655	458020	5.4	5733762	458789	5.4	5733776	459533	5.5
5733612	457258	5.3	5733663	458049	5.4	5733764	458803	5.4	5733775	459548	5.5
5733611	457273	5.3	5733666	458064	5.4	5733767	458817	5.4	5733774	459563	5.5
5733612	457290	5.3	5733669	458078	5.4	5733770	458832	5.5	5733773	459578	5.5
5733613	457304	5.3	5733672	458093	5.4	5733773	458847	5.4	5733772	459594	5.5
5733614	457319	5.3	5733676	458107	5.4	5733776	458862	5.5	5733771	459608	5.5
5733613	457334	5.3	5733681	458121	5.4	5733779	458877	5.4	5733770	459623	5.5
5733613	457349	5.3	5733684	458136	5.4	5733781	458891	5.5	5733769	459637	5.5
5733613	457364	5.3	5733688	458150	5.4	5733784	458906	5.4	5733767	459652	5.5
5733613	457379	5.3	5733693	458164	5.4	5733785	458920	5.5	5733767	459667	5.5
5733614	457394	5.3	5733703	458178	5.4	5733788	458934	5.4	5733767	459683	5.5
5733614	457410	5.3	5733711	458191	5.4	5733788	458948	5.5	5733766	459697	5.6
5733613	457425	5.3	5733716	458205	5.4	5733789	458963	5.5	5733764	459713	5.5
5733613	457439	5.4	5733719	458220	5.4	5733792	458977	5.5	5733761	459727	5.5
5733612	457454	5.3	5733722	458235	5.4	5733795	458991	5.5	5733759	459742	5.6
5733611	457470	5.3	5733724	458250	5.4	5733796	459006	5.5	5733756	459757	5.5
5733609	457485	5.3	5733722	458264	5.4	5733798	459020	5.5	5733754	459772	5.5
5733607	457503	5.3	5733718	458279	5.4	5733799	459035	5.5	5733751	459787	5.5
5733605	457515	5.3	5733717	458293	5.4	5733800	459049	5.5	5733748	459802	5.5
5733607	457532	5.4	5733713	458322	5.4	5733801	459063	5.5	5733747	459816	5.6
5733608	457546	5.3	5733713	458336	5.4	5733802	459077	5.5	5733746	459831	5.5
5733610	457562	5.4	5733714	458350	5.4	5733803	459092	5.5	5733744	459846	5.5
5733611	457577	5.3	5733715	458365	5.4	5733805	459107	5.5	5733743	459862	5.5
5733612	457592	5.4	5733714	458380	5.4	5733807	459122	5.5	5733743	459876	5.5
5733613	457607	5.3	5733714	458394	5.4	5733808	459137	5.5	5733742	459891	5.5
5733613	457636	5.4	5733713	458410	5.4	5733808	459151	5.5	5733740	459906	5.5
5733615	457652	5.3	5733714	458424	5.4	5733808	459166	5.5	5733738	459921	5.5
5733616	457666	5.3	5733716	458440	5.4	5733806	459180	5.5	5733738	459936	5.5
5733615	457682	5.3	5733718	458454	5.4	5733806	459195	5.5	5733739	459951	5.5
5733614	457697	5.3	5733719	458469	5.4	5733808	459209	5.5	5733740	459966	5.5
5733611	457712	5.3	5733719	458485	5.4	5733807	459224	5.5	5733739	459982	5.5
5733611	457727	5.3	5733719	458499	5.4	5733804	459238	5.5	5733737	459997	5.6
5733610	457742	5.4	5733720	458515	5.4	5733803	459253	5.5	5733737	460012	5.5
5733609	457757	5.3	5733721	458529	5.4	5733802	459267	5.5	5733736	460027	5.5
5733610	457772	5.4	5733723	458545	5.4	5733800	459282	5.5	5733736	460042	5.5
5733612	457787	5.4	5733728	458558	5.4	5733793	459295	5.5	5733734	460057	5.5
5733616	457801	5.4	5733734	458571	5.4	5733785	459307	5.5	5733733	460072	5.5
5733615	457816	5.4	5733737	458586	5.4	5733785	459322	5.5	5733733	460088	5.5
5733618	457831	5.4	5733739	458601	5.4	5733787	459338	5.5	5733733	460103	5.5
5733621	457846	5.4	5733741	458615	5.4	5733786	459353	5.5	5733731	460118	5.5
5733623	457861	5.4	5733746	458629	5.4	5733785	459368	5.5	5733729	460134	5.5
5733626	457875	5.4	5733750	458644	5.4	5733783	459382	5.5	5733727	460148	5.5
5733631	457889	5.4	5733754	458658	5.5	5733780	459397	5.5	5733723	460163	5.6

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733722	460178	5.6	5733575	460943	5.5	5733281	461645	5.6	5732918	462331	5.6
5733725	460193	5.6	5733571	460958	5.6	5733273	461657	5.6	5732912	462344	5.6
5733726	460208	5.5	5733567	460972	5.6	5733265	461670	5.6	5732904	462357	5.6
5733726	460222	5.5	5733564	460987	5.5	5733260	461684	5.6	5732897	462369	5.6
5733726	460238	5.5	5733560	461002	5.6	5733253	461698	5.6	5732890	462382	5.6
5733724	460252	5.6	5733554	461016	5.6	5733247	461710	5.6	5732883	462395	5.6
5733721	460267	5.6	5733548	461029	5.6	5733240	461723	5.7	5732875	462407	5.6
5733719	460282	5.5	5733542	461043	5.6	5733235	461737	5.6	5732866	462419	5.6
5733715	460296	5.6	5733535	461058	5.6	5733228	461751	5.6	5732859	462432	5.6
5733710	460311	5.5	5733529	461072	5.5	5733222	461764	5.6	5732852	462445	5.6
5733706	460325	5.6	5733522	461085	5.6	5733215	461777	5.6	5732846	462458	5.7
5733703	460339	5.6	5733514	461097	5.6	5733207	461789	5.6	5732840	462472	5.6
5733699	460354	5.6	5733505	461109	5.6	5733200	461802	5.6	5732834	462485	5.7
5733694	460368	5.6	5733496	461122	5.6	5733193	461815	5.6	5732826	462497	5.6
5733690	460382	5.6	5733489	461136	5.6	5733186	461828	5.6	5732818	462509	5.6
5733684	460397	5.5	5733483	461150	5.6	5733178	461840	5.6	5732810	462521	5.6
5733677	460410	5.6	5733478	461164	5.6	5733170	461853	5.6	5732803	462534	5.6
5733672	460424	5.6	5733473	461178	5.6	5733162	461866	5.6	5732795	462547	5.6
5733666	460438	5.6	5733468	461193	5.6	5733154	461879	5.6	5730994	468343	5.6
5733663	460453	5.6	5733461	461206	5.6	5733147	461891	5.6	5730994	468343	5.3
5733662	460469	5.6	5733455	461220	5.6	5733138	461902	5.6	5730995	468342	5.3
5733661	460484	5.6	5733448	461234	5.6	5733130	461914	5.6	5730996	468341	5.2
5733658	460499	5.6	5733440	461246	5.6	5733122	461927	5.6	5730997	468340	5.2
5733657	460514	5.6	5733433	461260	5.6	5733114	461955	5.6	5730999	468339	5.2
5733659	460529	5.6	5733425	461272	5.6	5733109	461970	5.6	5731000	468338	5.2
5733659	460544	5.6	5733418	461285	5.7	5733102	461983	5.6	5731001	468337	5.2
5733659	460560	5.6	5733409	461298	5.6	5733095	461996	5.6	5731002	468336	5.2
5733656	460575	5.6	5733404	461312	5.6	5733089	462009	5.6	5731004	468335	5.2
5733652	460590	5.6	5733399	461326	5.6	5733084	462023	5.6	5731006	468333	5.2
5733644	460604	5.6	5733396	461341	5.6	5733078	462037	5.6	5731007	468329	5.1
5733639	460618	5.6	5733391	461355	5.6	5733073	462050	5.6	5731010	468320	5.1
5733637	460632	5.6	5733388	461370	5.6	5733067	462064	5.6	5731015	468310	5.0
5733634	460649	5.6	5733385	461385	5.6	5733060	462077	5.6	5731019	468301	5.0
5733632	460662	5.6	5733380	461399	5.6	5733053	462089	5.6	5731020	468291	4.9
5733628	460693	5.6	5733375	461413	5.6	5733045	462101	5.6	5731020	468282	4.9
5733629	460708	5.6	5733370	461427	5.6	5733037	462114	5.6	5731021	468272	4.9
5733627	460722	5.6	5733366	461441	5.6	5733030	462126	5.7	5731021	468262	4.9
5733624	460737	5.6	5733361	461454	5.6	5733023	462139	5.6	5731022	468252	4.9
5733623	460753	5.6	5733356	461469	5.6	5733015	462151	5.7	5731025	468243	4.9
5733620	460767	5.6	5733353	461483	5.6	5733005	462162	5.6	5731031	468235	4.8
5733616	460782	5.6	5733348	461498	5.6	5732998	462175	5.6	5731040	468232	4.8
5733613	460797	5.6	5733343	461511	5.7	5732991	462189	5.7	5731051	468231	4.7
5733610	460812	5.5	5733336	461525	5.6	5732984	462201	5.7	5731059	468230	4.5
5733606	460827	5.5	5733331	461539	5.6	5732977	462214	5.6	5731071	468229	4.4
5733603	460841	5.6	5733326	461553	5.6	5732969	462227	5.6	5731079	468229	4.2
5733600	460857	5.5	5733320	461567	5.6	5732961	462239	5.7	5731089	468229	4.0
5733595	460872	5.5	5733313	461581	5.6	5732954	462251	5.6	5731098	468228	3.8
5733589	460886	5.6	5733307	461593	5.6	5732948	462264	5.6	5731107	468226	3.6
5733584	460900	5.5	5733302	461606	5.6	5732941	462277	5.7	5731114	468220	3.3
5733580	460914	5.6	5733295	461620	5.6	5732929	462304	5.6	5731113	468212	2.7
5733577	460928	5.6	5733289	461633	5.6	5732924	462317	5.6	5731109	468203	2.5

(continued)

### Appendix A4-1. Skeeter Lake Bathymetric Data

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5731106	468195	2.4	5730648	467959	5.5	5730396	467711	2.1	5730891	467735	5.4
5731102	468187	1.9	5730639	467958	5.4	5730396	467702	2.1	5730902	467736	5.4
5731096	468147	1.3	5730630	467956	5.5	5730398	467692	2.1	5730912	467736	5.4
5731098	468143	5.1	5730621	467955	5.4	5730406	467689	2.2	5730922	467737	5.4
5731102	468138	3.6	5730611	467954	5.5	5730415	467691	2.6	5730933	467738	5.4
5731106	468134	1.6	5730602	467952	5.5	5730425	467694	3.1	5730942	467739	5.4
5731111	468130	1.7	5730593	467950	5.4	5730434	467696	3.6	5730953	467741	5.4
5731117	468124	1.6	5730575	467946	5.5	5730444	467698	4.0	5730962	467743	5.4
5731122	468118	1.6	5730566	467944	5.5	5730454	467699	4.2	5730972	467746	5.4
5731127	468112	3.5	5730557	467942	5.5	5730464	467701	4.4	5730983	467749	5.3
5731132	468097	1.5	5730548	467942	5.5	5730474	467702	4.6	5730992	467751	5.3
5731133	468089	1.4	5730539	467941	5.5	5730484	467703	4.7	5731002	467751	5.3
5731134	468079	1.5	5730529	467941	5.5	5730494	467705	4.8	5731023	467751	5.3
5731137	468072	1.4	5730520	467942	5.5	5730504	467706	5.1	5731033	467752	5.2
5731141	468064	1.4	5730511	467942	5.5	5730513	467707	5.2	5731043	467752	5.1
5731151	468050	3.0	5730501	467943	5.4	5730525	467709	5.4	5731055	467752	5.1
5730995	467984	2.9	5730492	467943	5.4	5730533	467710	5.4	5731064	467752	5.0
5730984	467983	4.8	5730482	467944	5.3	5730544	467711	5.4	5731074	467753	5.0
5730975	467982	5.2	5730473	467944	5.0	5730554	467712	5.4	5731084	467754	4.8
5730966	467982	5.2	5730463	467945	4.9	5730564	467712	5.4	5731094	467754	4.6
5730957	467981	5.3	5730454	467944	4.7	5730574	467712	5.5	5731105	467754	4.6
5730947	467980	5.4	5730444	467943	4.2	5730584	467712	5.4	5731115	467755	4.3
5730938	467980	5.3	5730435	467942	3.8	5730593	467712	5.4	5731125	467756	4.1
5730928	467979	5.4	5730426	467941	3.1	5730601	467712	5.4	5731135	467756	3.8
5730910	467979	5.4	5730418	467939	2.7	5730616	467714	5.4	5731146	467755	3.3
5730901	467978	5.4	5730411	467936	2.6	5730626	467715	5.5	5731154	467750	2.6
5730892	467977	5.4	5730407	467931	2.4	5730637	467717	5.4	5731161	467742	2.2
5730882	467976	5.4	5730403	467926	2.2	5730647	467719	5.4	5731167	467734	2.0
5730864	467974	5.4	5730401	467919	2.2	5730656	467720	5.4	5731170	467724	1.8
5730854	467973	5.4	5730400	467911	2.1	5730667	467720	5.4	5731172	467715	1.8
5730844	467973	5.5	5730399	467903	2.1	5730677	467721	5.5	5731178	467695	2.1
5730833	467972	5.4	5730398	467895	2.1	5730687	467721	5.4	5731181	467685	2.5
5730826	467972	5.4	5730397	467887	2.1	5730697	467721	5.5	5731185	467676	2.9
5730817	467972	5.4	5730395	467880	2.2	5730708	467722	5.5	5731189	467666	3.1
5730807	467972	5.4	5730393	467872	2.1	5730718	467723	5.5	5731194	467657	2.9
5730798	467972	5.5	5730392	467863	2.0	5730729	467724	5.5	5731198	467648	2.7
5730789	467971	5.4	5730392	467854	1.9	5730739	467725	5.4	5731202	467638	2.6
5730779	467970	5.4	5730392	467845	1.9	5730749	467726	5.5	5731205	467628	2.6
5730770	467969	5.4	5730391	467836	2.0	5730759	467728	5.4	5731208	467619	2.6
5730760	467969	5.5	5730390	467826	2.1	5730769	467729	5.4	5731210	467609	2.6
5730751	467968	5.4	5730389	467817	2.1	5730780	467730	5.4	5731212	467599	2.6
5730742	467967	5.4	5730389	467807	2.1	5730789	467731	5.4	5731214	467589	2.4
5730732	467967	5.4	5730388	467797	2.0	5730801	467732	5.4	5731216	467579	2.4
5730723	467967	5.5	5730388	467789	2.0	5730810	467733	5.4	5731219	467570	2.3
5730714	467966	5.5	5730390	467778	2.1	5730820	467734	5.4	5731223	467560	1.9
5730705	467965	5.4	5730391	467768	2.1	5730830	467735	5.4	5731225	467550	2.0
5730695	467964	5.4	5730392	467759	2.2	5730840	467735	5.4	5731229	467541	2.0
5730686	467962	5.5	5730393	467750	2.2	5730850	467734	5.4	5731232	467531	2.0
5730676	467961	5.5	5730394	467739	2.2	5730861	467734	5.4	5731234	467522	2.0
5730666	467960	5.4	5730395	467731	2.1	5730871	467734	5.4	5731227	467516	1.9
5730657	467960	5.4	5730395	467721	2.0	5730883	467735	5.4	5731218	467515	2.4

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5731209	467517	3.2	5730730	467470	5.5	5730436	467338	2.0	5730779	467236	5.5
5731199	467517	3.7	5730720	467469	5.4	5730436	467334	2.2	5730789	467238	5.4
5731190	467515	3.9	5730711	467469	5.4	5730437	467327	2.1	5730800	467240	5.5
5731180	467513	4.1	5730702	467468	5.5	5730437	467319	2.1	5730810	467241	5.4
5731171	467512	4.2	5730692	467466	5.5	5730436	467312	2.2	5730820	467243	5.4
5731162	467512	4.4	5730684	467465	5.5	5730435	467305	2.2	5730830	467245	5.5
5731153	467512	4.5	5730674	467464	5.5	5730435	467297	2.0	5730851	467247	5.5
5731143	467512	4.6	5730665	467463	5.5	5730436	467290	1.8	5730861	467248	5.5
5731134	467510	4.6	5730646	467462	5.5	5730439	467283	1.7	5730872	467249	5.5
5731125	467509	4.7	5730637	467460	5.5	5730442	467276	1.8	5730881	467249	5.5
5731116	467507	4.8	5730628	467459	5.5	5730445	467269	2.1	5730891	467250	5.5
5731106	467506	4.8	5730618	467458	5.5	5730447	467262	2.4	5730901	467251	5.5
5731097	467504	4.8	5730609	467458	5.5	5730448	467253	2.5	5730911	467254	5.4
5731087	467502	4.9	5730599	467457	5.5	5730448	467244	2.7	5730922	467255	5.5
5731078	467502	4.9	5730590	467456	5.5	5730449	467236	2.6	5730931	467255	5.4
5731069	467500	5.0	5730581	467455	5.5	5730449	467229	2.5	5730942	467256	5.5
5731060	467499	5.0	5730570	467453	5.5	5730450	467220	2.5	5730952	467257	5.4
5731050	467497	5.0	5730562	467451	5.5	5730451	467212	2.4	5730962	467258	5.3
5731041	467496	5.0	5730553	467449	5.5	5730451	467203	1.9	5730972	467259	5.3
5731032	467496	5.1	5730544	467447	5.4	5730453	467194	1.4	5730982	467259	5.3
5731023	467494	5.1	5730535	467446	5.5	5730459	467189	1.7	5730994	467260	5.1
5731013	467493	5.1	5730525	467445	5.3	5730468	467190	2.1	5731002	467260	5.0
5731004	467490	5.2	5730516	467444	5.1	5730478	467192	2.7	5731012	467261	4.9
5730995	467488	5.2	5730506	467443	4.9	5730488	467193	3.5	5731023	467262	4.8
5730986	467486	5.2	5730497	467441	4.8	5730499	467194	4.2	5731033	467263	4.7
5730968	467483	5.2	5730487	467439	4.7	5730508	467195	4.3	5731043	467265	4.7
5730957	467482	5.3	5730478	467436	4.5	5730518	467195	4.5	5731053	467268	4.6
5730949	467482	5.4	5730469	467435	4.4	5730528	467196	4.7	5731062	467270	4.6
5730940	467480	5.4	5730460	467434	4.1	5730538	467197	4.8	5731072	467272	4.6
5730930	467480	5.4	5730451	467433	4.1	5730548	467198	5.0	5731082	467273	4.5
5730921	467481	5.5	5730443	467431	3.7	5730558	467199	5.1	5731092	467273	4.4
5730912	467481	5.4	5730436	467427	3.0	5730568	467201	5.3	5731101	467273	4.3
5730902	467480	5.5	5730433	467421	2.4	5730578	467202	5.4	5731112	467273	4.2
5730893	467480	5.5	5730431	467411	1.9	5730588	467203	5.5	5731123	467272	4.1
5730885	467480	5.4	5730431	467404	1.4	5730599	467204	5.5	5731132	467271	4.1
5730880	467479	5.6	5730434	467382	2.6	5730618	467207	5.5	5731142	467268	3.8
5730876	467480	5.5	5730443	467378	1.4	5730628	467209	5.5	5731151	467266	3.5
5730870	467481	5.5	5730450	467379	1.9	5730638	467211	5.5	5731160	467265	3.0
5730862	467480	5.5	5730454	467378	2.2	5730650	467212	5.5	5731169	467263	2.8
5730851	467479	5.4	5730459	467378	2.7	5730658	467213	5.4	5731177	467261	2.8
5730843	467479	5.4	5730463	467375	3.0	5730669	467215	5.4	5731184	467257	2.7
5730834	467479	5.5	5730464	467372	3.3	5730679	467216	5.4	5731190	467252	2.5
5730824	467479	5.5	5730461	467368	3.6	5730689	467218	5.5	5731193	467245	2.4
5730814	467479	5.4	5730457	467365	3.4	5730699	467220	5.5	5731195	467236	2.2
5730805	467479	5.4	5730452	467363	3.1	5730709	467222	5.5	5731196	467229	2.0
5730795	467478	5.4	5730447	467360	2.8	5730719	467224	5.4	5731195	467221	1.7
5730785	467477	5.5	5730444	467358	2.6	5730729	467227	5.5	5731194	467213	3.2
5730777	467476	5.5	5730442	467354	2.4	5730739	467229	5.5	5731189	467193	3.2
5730758	467473	5.5	5730440	467351	2.4	5730749	467231	5.5	5731178	467191	2.9
5730749	467472	5.4	5730438	467347	2.3	5730759	467233	5.5	5731174	467191	3.0
5730740	467471	5.4	5730437	467343	2.2	5730769	467235	5.5	5731171	467193	3.0

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5731171	467196	3.3	5731102	467010	4.5	5730586	466963	5.5	5730595	466705	5.4
5731174	467199	3.5	5731083	467009	4.8	5730577	466962	5.5	5730605	466707	5.4
5731178	467198	1.7	5731074	467008	5.0	5730567	466962	5.4	5730615	466710	5.4
5731181	467195	1.6	5731065	467007	5.0	5730558	466959	5.2	5730624	466714	5.4
5731181	467190	3.3	5731056	467006	5.1	5730549	466957	4.9	5730634	466717	5.5
5731176	467179	3.2	5731047	467006	5.1	5730539	466954	4.8	5730644	466721	5.5
5731170	467169	2.9	5731037	467005	5.1	5730531	466952	4.7	5730654	466724	5.5
5731167	467164	2.9	5731028	467005	5.1	5730522	466949	4.6	5730664	466726	5.4
5731161	467146	1.5	5731018	467004	5.2	5730514	466946	4.5	5730673	466727	5.5
5731158	467131	3.0	5731009	467003	5.2	5730504	466943	4.3	5730684	466728	5.5
5731157	467126	3.1	5731000	467003	5.3	5730495	466941	4.2	5730694	466728	5.5
5731156	467119	2.5	5730991	467002	5.3	5730487	466940	3.9	5730704	466729	5.4
5731153	467113	3.2	5730982	467001	5.4	5730481	466938	3.2	5730714	466731	5.4
5731151	467106	3.5	5730973	467001	5.4	5730477	466932	2.8	5730724	466732	5.4
5731149	467100	1.8	5730955	466998	5.4	5730475	466924	2.4	5730745	466735	5.5
5731148	467095	2.2	5730945	466997	5.4	5730475	466914	2.2	5730754	466737	5.4
5731148	467092	2.5	5730937	466996	5.5	5730475	466906	2.1	5730765	466739	5.4
5731149	467090	2.5	5730918	466995	5.4	5730476	466897	2.1	5730774	466741	5.4
5731149	467088	2.4	5730910	466994	5.4	5730476	466887	2.0	5730785	466743	5.5
5731149	467084	2.3	5730900	466993	5.4	5730476	466878	2.0	5730796	466745	5.5
5731151	467076	2.5	5730891	466992	5.5	5730476	466868	2.0	5730805	466746	5.4
5731155	467069	2.6	5730882	466992	5.5	5730475	466860	2.1	5730815	466749	5.5
5731160	467062	2.6	5730873	466990	5.5	5730474	466850	2.3	5730825	466751	5.5
5731166	467056	2.5	5730864	466989	5.5	5730473	466841	2.3	5730835	466752	5.4
5731173	467049	2.5	5730854	466989	5.4	5730472	466831	2.2	5730846	466754	5.4
5731179	467044	2.5	5730845	466988	5.4	5730472	466822	2.2	5730855	466755	5.4
5731186	467038	2.4	5730836	466986	5.5	5730471	466812	2.1	5730866	466756	5.5
5731194	467033	2.1	5730827	466985	5.4	5730471	466803	2.0	5730875	466758	5.4
5731201	467029	2.0	5730817	466984	5.5	5730471	466793	1.9	5730886	466759	5.4
5731215	467017	1.8	5730809	466982	5.4	5730471	466783	1.8	5730905	466761	5.4
5731217	467004	1.7	5730800	466981	5.4	5730470	466774	2.0	5730917	466763	5.4
5731209	467003	1.7	5730781	466979	5.5	5730469	466765	2.2	5730926	466765	5.4
5731199	467004	1.9	5730772	466979	5.5	5730468	466755	2.2	5730936	466767	5.4
5731192	467006	2.2	5730762	466979	5.5	5730467	466746	2.2	5730946	466769	5.4
5731186	467006	2.4	5730753	466979	5.5	5730467	466736	2.3	5730957	466770	5.5
5731182	467005	2.6	5730743	466978	5.5	5730467	466726	2.3	5730977	466772	5.5
5731178	467003	2.7	5730735	466977	5.5	5730467	466717	2.4	5730987	466772	5.4
5731173	467001	2.8	5730726	466977	5.5	5730467	466707	2.5	5730997	466773	5.4
5731169	467000	2.9	5730716	466976	5.5	5730468	466698	2.6	5731008	466774	5.4
5731164	467000	3.0	5730707	466974	5.5	5730471	466689	2.6	5731017	466774	5.4
5731162	467000	3.3	5730698	466974	5.4	5730480	466685	2.6	5731028	466774	5.4
5731159	467001	3.5	5730678	466973	5.5	5730489	466685	2.9	5731038	466775	5.4
5731157	467002	3.8	5730671	466972	5.5	5730499	466687	3.6	5731048	466776	6.0
5731154	467004	3.9	5730661	466971	5.5	5730510	466688	4.1	5731059	466777	5.3
5731152	467005	3.9	5730652	466969	5.5	5730518	466689	4.2	5731070	466778	5.3
5731149	467006	4.0	5730643	466968	5.5	5730527	466694	4.3	5731079	466778	5.3
5731146	467007	4.1	5730633	466967	5.5	5730536	466698	4.4	5731089	466778	5.3
5731144	467008	4.1	5730624	466966	5.5	5730545	466701	4.6	5731100	466778	5.2
5731138	467009	4.2	5730615	466966	5.5	5730556	466701	4.6	5731110	466778	5.1
5731130	467010	4.2	5730605	466965	5.5	5730566	466701	4.7	5731120	466778	5.1
5731121	467010	4.4	5730596	466964	5.4	5730585	466703	5.0	5731130	466779	5.1

(continued)

### Appendix A4-1. Skeeter Lake Bathymetric Data

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5731140	466779	5.0	5731223	466619	2.0	5731251	465995	3.9	5731204	466710	3.5
5731150	466780	4.9	5731221	466624	2.1	5731245	466004	4.1	5731205	466700	3.2
5731160	466780	4.8	5731219	466629	2.3	5731241	466010	4.2	5731205	466694	3.3
5731172	466781	4.6	5731217	466634	2.4	5731235	466017	4.3	5731205	466688	3.0
5731181	466781	4.4	5731216	466638	2.4	5731230	466024	4.4	5731205	466680	3.0
5731191	466781	4.2	5731216	466643	2.6	5731228	466033	4.5	5731206	466672	3.1
5731200	466782	3.9	5731217	466649	2.5	5731228	466042	4.5	5731208	466664	3.0
5731207	466781	3.6	5731217	466653	2.4	5731231	466061	4.5	5731209	466656	2.9
5731213	466777	2.8	5731211	466662	2.2	5731233	466071	4.4	5731211	466647	2.8
5731219	466772	2.4	5731205	466657	2.3	5731234	466080	4.3	5731214	466639	2.8
5731223	466768	2.1	5731207	466649	3.3	5731236	466089	4.3	5731217	466631	2.7
5731227	466762	1.9	5731212	466642	3.6	5731237	466099	4.3	5731220	466623	2.3
5731229	466756	1.9	5731215	466636	3.2	5731239	466110	4.2	5731224	466615	2.3
5731227	466742	1.9	5731218	466632	2.7	5731240	466119	4.1	5731229	466607	1.9
5731223	466734	1.9	5731212	466624	2.7	5731241	466128	4.0	5731233	466599	1.8
5731219	466728	2.1	5731203	466621	2.8	5731240	466136	3.9	5731234	466591	3.1
5731215	466721	2.2	5731194	466617	3.7	5731239	466146	3.7	5731238	466573	3.1
5731213	466714	2.4	5731190	466615	4.1	5731238	466152	3.6	5731239	466564	1.8
5731211	466705	2.5	5731191	466613	4.3	5731237	466157	3.7	5731232	466559	2.1
5731211	466698	2.6	5731192	466612	4.5	5731236	466162	3.7	5731224	466557	2.7
5731212	466690	2.4	5731193	466611	4.5	5731227	466127	3.7	5731207	466549	3.5
5731211	466681	2.3	5731194	466610	4.5	5731226	466129	4.3	5731199	466545	4.2
5731212	466673	2.3	5731195	466609	4.5	5731225	466132	4.3	5731190	466542	4.3
5731213	466665	2.2	5731196	466607	4.5	5731224	466135	4.3	5731182	466538	4.5
5731215	466656	2.3	5731197	466606	4.5	5731303	466413	4.3	5731174	466533	4.6
5731217	466649	2.1	5731198	466605	4.4	5731303	466413	3.3	5731166	466529	4.9
5731220	466642	2.1	5731199	466604	4.4	5731304	466413	4.1	5731157	466526	4.9
5731224	466634	2.0	5731200	466603	4.4	5731304	466413	3.3	5731148	466525	5.0
5731228	466627	1.8	5731201	466601	4.3	5731187	466626	4.4	5731138	466524	5.1
5731231	466618	3.2	5731202	466600	4.3	5731187	466627	4.4	5731129	466523	5.1
5731237	466597	2.9	5731203	466599	4.2	5731188	466630	4.4	5731120	466522	5.2
5731258	466559	2.8	5731204	466598	4.2	5731190	466632	4.3	5731111	466521	5.2
5731263	466545	4.8	5731205	466596	4.1	5731191	466635	4.2	5731102	466520	5.3
5731265	466541	5.8	5731206	466595	4.1	5731192	466638	4.2	5731093	466519	5.3
5731267	466537	5.6	5731208	466594	4.1	5731193	466643	4.2	5731075	466516	5.4
5731259	466529	5.4	5731209	466593	4.0	5731194	466649	4.1	5731065	466516	5.3
5731254	466535	2.1	5731232	465991	3.9	5731196	466654	4.1	5731056	466515	5.3
5731250	466540	2.2	5731232	465990	4.6	5731198	466661	4.1	5731038	466512	5.3
5731244	466546	2.4	5731233	465989	4.5	5731198	466668	3.9	5731027	466512	5.4
5731238	466552	2.6	5731234	465988	4.5	5731198	466676	3.9	5731018	466511	5.4
5731232	466559	2.8	5731236	465986	4.5	5731200	466683	3.8	5731009	466510	5.4
5731227	466565	2.8	5731237	465985	4.4	5731202	466691	3.8	5730990	466509	5.5
5731223	466570	3.1	5731238	465983	4.4	5731203	466699	3.6	5730981	466507	5.5
5731222	466576	3.3	5731239	465982	4.4	5731205	466707	3.5	5730972	466505	5.5
5731223	466583	3.0	5731240	465980	4.4	5731208	466715	3.4	5730963	466503	5.5
5731224	466588	2.9	5731241	465971	4.3	5731211	466722	3.0	5730953	466502	5.5
5731225	466592	2.7	5731245	465965	4.2	5731213	466731	2.8	5730944	466500	5.5
5731226	466596	2.6	5731254	465966	4.1	5731211	466739	2.7	5730935	466498	5.5
5731228	466605	2.3	5731258	465970	3.9	5731204	466738	2.7	5730927	466495	5.5
5731227	466610	1.8	5731259	465979	3.7	5731201	466730	3.3	5730918	466493	5.5
5731226	466614	1.9	5731255	465987	3.8	5731202	466721	3.6	5730908	466491	5.6

(continued)

### Appendix A4-1. Skeeter Lake Bathymetric Data

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5730899	466490	5.5	5730530	466324	2.5	5730909	466252	5.5	5731276	466081	2.6
5730890	466488	5.5	5730532	466314	2.6	5730929	466255	5.5	5731278	466071	2.7
5730881	466486	5.5	5730534	466304	2.6	5730939	466257	5.5	5731279	466062	2.7
5730872	466484	5.5	5730535	466295	2.6	5730949	466258	5.5	5731280	466052	2.8
5730863	466481	5.5	5730535	466285	2.9	5730959	466260	5.5	5731282	466042	2.8
5730854	466479	5.5	5730536	466275	3.0	5730969	466261	5.5	5731284	466033	2.7
5730845	466476	5.5	5730536	466265	3.2	5730979	466262	5.5	5731281	466026	2.7
5730836	466473	5.5	5730535	466256	3.5	5730989	466264	5.5	5731272	466023	2.9
5730827	466471	5.5	5730534	466246	3.6	5730998	466265	5.5	5731263	466023	3.3
5730818	466468	5.5	5730534	466236	3.8	5731008	466265	5.4	5731254	466024	3.7
5730809	466465	5.5	5730535	466226	3.8	5731028	466266	5.4	5731245	466025	4.0
5730800	466462	5.5	5730536	466217	3.9	5731038	466266	5.4	5731235	466025	4.2
5730782	466457	5.5	5730538	466207	4.0	5731048	466267	5.5	5731208	466020	4.3
5730773	466454	5.5	5730542	466198	3.9	5731058	466266	5.5	5731198	466019	4.8
5730764	466452	5.5	5730549	466192	3.9	5731068	466266	5.4	5731189	466017	4.9
5730754	466449	5.5	5730558	466190	4.1	5731078	466267	5.4	5731180	466014	5.0
5730745	466448	5.5	5730568	466188	4.3	5731088	466266	5.4	5731171	466012	5.0
5730736	466446	5.5	5730577	466189	4.4	5731098	466266	5.3	5731162	466010	5.1
5730726	466446	5.5	5730587	466191	4.4	5731108	466266	5.4	5731144	466008	5.2
5730717	466445	5.5	5730596	466193	4.4	5731119	466267	5.3	5731133	466006	5.4
5730707	466444	5.6	5730606	466196	4.6	5731128	466267	5.4	5733979	457343	5.4
5730697	466443	5.5	5730615	466199	4.7	5731138	466268	5.3	5733978	457329	4.3
5730687	466442	5.5	5730625	466203	4.8	5731148	466268	5.2	5733976	457315	4.3
5730678	466442	5.5	5730633	466207	5.1	5731158	466268	5.2	5733974	457301	4.3
5730668	466444	5.5	5730642	466212	5.3	5731168	466268	5.1	5733972	457288	4.3
5730659	466444	5.5	5730651	466216	5.4	5731178	466268	5.0	5733970	457274	4.3
5730650	466444	5.5	5730660	466219	5.4	5731188	466268	4.9	5733970	457261	4.3
5730640	466444	5.5	5730670	466220	5.5	5731198	466268	4.7	5733969	457247	4.3
5730631	466444	5.5	5730680	466221	5.5	5731208	466269	4.5	5733968	457233	4.1
5730621	466444	5.4	5730689	466222	5.5	5731218	466269	4.3	5733967	457219	4.1
5730612	466443	5.3	5730699	466223	5.5	5731228	466270	4.1	5733964	457206	3.9
5730602	466441	4.8	5730709	466224	5.5	5731238	466270	3.8	5733961	457193	3.8
5730593	466439	4.8	5730719	466224	5.6	5731249	466269	3.1	5733960	457179	3.6
5730584	466438	4.8	5730729	466225	5.5	5731253	466263	2.5	5733959	457165	2.9
5730574	466437	4.8	5730739	466226	5.5	5731252	466253	2.3	5733954	456821	3.5
5730565	466434	4.7	5730749	466227	5.5	5731250	466234	2.2	5733956	456807	4.6
5730556	466431	4.6	5730759	466228	5.5	5731250	466224	2.3	5733955	456794	4.6
5730547	466428	4.4	5730769	466230	5.5	5731251	466214	2.4	5733955	456780	4.6
5730538	466426	4.2	5730779	466232	5.5	5731253	466205	2.4	5733955	456766	4.6
5730530	466423	4.2	5730789	466234	5.5	5731254	466195	2.3	5733956	456752	4.6
5730526	466419	3.7	5730799	466236	5.5	5731256	466186	2.3	5733954	456738	4.6
5730525	466411	3.3	5730809	466236	5.5	5731257	466176	2.3	5733953	456724	4.6
5730526	466403	3.0	5730819	466237	5.5	5731258	466167	2.2	5733952	456711	4.6
5730526	466395	3.1	5730829	466238	5.5	5731260	466157	2.3	5733952	456697	4.6
5730527	466386	3.1	5730839	466240	5.5	5731262	466148	2.3	5733952	456683	4.6
5730527	466377	2.8	5730848	466241	5.5	5731264	466138	2.4	5733951	456669	4.5
5730526	466369	2.2	5730858	466243	5.5	5731266	466128	2.3	5733950	456655	4.5
5730526	466360	2.1	5730870	466245	5.5	5731268	466119	2.3	5733947	456642	4.5
5730526	466352	2.4	5730880	466247	5.5	5731270	466109	2.3	5733947	456628	4.5
5730526	466343	2.6	5730889	466249	5.5	5731272	466100	2.2	5733948	456614	4.5
5730528	466333	2.5	5730899	466251	5.5	5731274	466090	1.6	5733946	456601	4.5

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733943	456587	4.5	5733893	455890	3.6	5730592	468231	5.5	5730754	467511	5.6
5733941	456574	4.5	5733893	455876	3.1	5730594	468217	5.5	5730757	467497	5.6
5733937	456560	4.4	5733893	455862	2.8	5730595	468203	5.5	5730759	467484	5.5
5733932	456548	4.4	5733893	455849	3.2	5730596	468189	5.5	5730762	467470	5.5
5733931	456534	4.5	5733893	455835	3.4	5730598	468174	5.5	5730765	467456	5.6
5733930	456520	4.5	5733891	455821	3.5	5730601	468161	5.5	5730769	467443	5.6
5733929	456507	4.4	5733889	455807	3.8	5730607	468147	5.5	5730772	467429	5.5
5733926	456493	4.4	5733886	455794	4.1	5730614	468135	5.5	5730776	467416	5.6
5733923	456480	4.4	5733885	455780	4.3	5730622	468124	5.5	5730780	467402	5.6
5733920	456467	4.4	5733885	455766	4.3	5730630	468112	5.5	5730784	467389	5.6
5733919	456453	4.4	5733885	455752	4.4	5730638	468100	5.5	5730787	467375	5.5
5733919	456439	4.2	5733884	455738	4.5	5730648	468074	5.5	5730789	467362	5.6
5733918	456426	4.1	5733883	455725	4.5	5730651	468060	5.5	5730792	467347	5.6
5733917	456412	4.0	5733881	455711	4.4	5730655	468046	5.5	5730796	467333	5.6
5733915	456399	4.0	5733879	455697	4.5	5730662	468033	5.5	5730795	467320	5.6
5733913	456385	4.0	5733877	455684	4.4	5730679	468010	5.5	5730798	467306	5.6
5733912	456372	3.9	5733878	455656	4.3	5730684	467996	5.5	5730800	467292	5.6
5733911	456358	3.7	5733879	455642	4.2	5730686	467983	5.5	5730805	467265	5.6
5733910	456344	4.0	5733879	455628	4.2	5730688	467969	5.5	5730807	467251	5.6
5733909	456331	4.2	5733879	455614	4.2	5730690	467954	5.5	5730810	467237	5.6
5733907	456317	4.3	5733879	455600	4.1	5730691	467940	5.5	5730813	467223	5.6
5733903	456304	4.4	5733879	455586	3.9	5730692	467926	5.5	5730816	467209	5.6
5733901	456290	4.5	5733880	455572	3.8	5730693	467912	5.5	5730820	467197	5.6
5733898	456277	4.6	5733882	455558	3.3	5730694	467898	5.5	5730825	467186	5.7
5733895	456264	4.7	5733883	455531	2.5	5730696	467884	5.5	5730829	467174	5.7
5733893	456250	4.8	5733877	455518	2.3	5730697	467870	5.5	5730829	467161	5.6
5733891	456236	4.8	5733873	455505	3.1	5730699	467855	5.5	5730831	467149	5.6
5733890	456222	4.9	5733872	455491	3.3	5730700	467841	5.5	5730834	467135	5.6
5733887	456209	4.9	5733872	455476	3.5	5730702	467827	5.5	5730837	467124	5.6
5733883	456195	4.9	5733873	455462	3.5	5730703	467812	5.6	5730840	467114	5.7
5733882	456181	4.9	5733874	455447	3.6	5730700	467798	5.6	5730841	467108	5.7
5733882	456167	4.9	5733875	455434	3.6	5730695	467784	5.6	5730843	467103	5.7
5733881	456153	4.9	5733876	455420	3.6	5730693	467771	5.5	5730845	467100	5.7
5733880	456139	4.9	5733878	455406	3.5	5730696	467757	5.6	5730847	467096	5.7
5733879	456125	4.9	5733879	455392	3.3	5730698	467743	5.5	5730850	467093	5.7
5733879	456112	4.9	5733880	455377	3.1	5730702	467729	5.5	5730854	467090	5.8
5733881	456098	4.9	5733881	455364	3.0	5730707	467716	5.5	5730856	467087	5.7
5733883	456084	4.9	5733881	455349	2.7	5730710	467702	5.6	5730857	467083	5.7
5733883	456070	4.9	5733881	455335	4.8	5730713	467688	5.6	5730855	467081	5.7
5733884	456056	4.8	5733880	455322	3.8	5730716	467675	5.5	5730851	467082	5.7
5733884	456042	4.8	5730541	468408	2.8	5730720	467661	5.6	5730847	467086	5.7
5733886	456028	4.8	5730541	468408	5.5	5730724	467648	5.6	5730843	467091	5.7
5733887	456014	4.8	5730541	468408	5.5	5730727	467634	5.5	5730842	467097	5.7
5733887	456001	4.8	5730554	468354	5.5	5730729	467620	5.5	5730842	467104	5.7
5733887	455987	4.8	5730557	468339	5.5	5730732	467607	5.5	5730844	467110	5.7
5733888	455973	4.7	5730560	468326	5.4	5730736	467593	5.6	5730848	467115	5.7
5733889	455959	4.7	5730564	468313	5.5	5730739	467579	5.6	5730853	467119	5.7
5733890	455945	4.7	5730568	468299	5.5	5730742	467566	5.5	5730858	467122	5.7
5733891	455932	4.6	5730574	468285	5.5	5730744	467552	5.5	5730863	467125	5.7
5733891	455918	4.4	5730579	468271	5.5	5730748	467539	5.5	5730869	467127	5.7
5733892	455904	4.2	5730588	468245	5.5	5730752	467525	5.6	5730874	467129	5.7

(continued)



**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5730880	467129	5.7	5730956	466863	5.6	5730956	466342	5.6	5730700	465895	5.6
5730885	467130	5.7	5730956	466858	5.7	5730957	466328	5.5	5730686	465892	5.7
5730891	467130	5.7	5730954	466855	5.7	5730957	466314	5.6	5730672	465888	5.6
5730896	467130	5.7	5730951	466853	5.7	5730958	466300	5.6	5730658	465883	5.0
5730901	467130	5.7	5730948	466852	5.7	5730959	466286	5.6	5730644	465880	5.1
5730906	467129	5.7	5730944	466853	5.7	5730959	466272	5.6	5730630	465876	4.9
5730911	467127	5.7	5730940	466854	5.8	5730961	466258	5.6	5730616	465874	4.7
5730915	467126	5.7	5730936	466856	5.8	5730964	466245	5.6	5730601	465872	4.3
5730918	467123	5.7	5730932	466858	5.7	5730971	466217	5.6	5730589	465867	3.2
5730921	467121	5.7	5730928	466859	5.7	5730974	466203	5.6	5730599	465800	2.1
5730923	467118	5.7	5730923	466861	5.7	5730976	466189	5.6	5730601	465786	3.7
5730923	467117	5.7	5730919	466864	5.7	5730979	466176	5.6	5730608	465774	4.1
5730921	467117	5.7	5730914	466866	5.7	5730981	466162	5.6	5730613	465761	4.4
5730918	467120	5.7	5730907	466867	5.6	5730983	466148	5.6	5730614	465747	4.5
5730914	467123	5.7	5730902	466858	5.6	5730984	466134	5.6	5730615	465732	4.5
5730911	467129	5.7	5730904	466844	5.6	5730985	466120	5.6	5730613	465718	4.6
5730910	467136	5.7	5730905	466830	5.6	5730987	466106	5.6	5730609	465704	4.5
5730912	467142	5.7	5730907	466816	5.6	5730990	466092	5.6	5730602	465692	4.5
5730916	467146	5.7	5730907	466802	5.5	5730992	466078	5.6	5730596	465680	4.0
5730921	467149	5.7	5730907	466788	5.6	5730995	466064	5.6	5730599	465667	3.2
5730926	467150	5.7	5730907	466774	5.6	5731000	466036	5.6	5730610	465670	2.6
5730932	467151	5.7	5730908	466760	5.5	5731003	466022	5.6	5730624	465672	3.6
5730937	467152	5.7	5730910	466746	5.5	5731007	466009	5.6	5730637	465680	4.5
5730942	467152	5.6	5730913	466733	5.6	5731010	465995	5.6	5730650	465686	4.7
5730948	467154	5.6	5730914	466719	5.5	5731014	465982	5.6	5730663	465693	5.0
5730947	467160	5.6	5730915	466704	5.5	5731018	465968	5.6	5730675	465702	5.1
5730944	467153	5.6	5730916	466690	5.5	5731021	465955	5.6	5730690	465703	5.5
5730945	467139	5.6	5730915	466677	5.5	5731024	465941	5.6	5730704	465705	5.7
5730945	467126	5.5	5730915	466663	5.6	5731026	465927	5.6	5730719	465706	5.7
5730946	467112	5.6	5730915	466648	5.5	5731026	465915	5.6	5730733	465707	5.7
5730946	467098	5.5	5730916	466634	5.5	5731013	465916	5.6	5730747	465708	5.7
5730947	467084	5.5	5730917	466620	5.5	5731000	465922	5.6	5730762	465709	5.7
5730947	467071	5.6	5730918	466607	5.5	5730987	465928	5.6	5730776	465710	5.7
5730946	467057	5.5	5730920	466593	5.6	5730973	465934	5.6	5730790	465711	5.7
5730946	467045	5.6	5730922	466579	5.6	5730959	465939	5.6	5730804	465714	5.7
5730945	467035	5.7	5730925	466565	5.6	5730945	465941	5.6	5730818	465715	5.7
5730944	467031	5.7	5730927	466551	5.6	5730930	465941	5.6	5730833	465716	5.7
5730944	467028	5.6	5730929	466537	5.6	5730915	465941	5.6	5730847	465717	5.7
5730947	467026	5.6	5730930	466523	5.6	5730901	465939	5.6	5730861	465719	5.7
5730949	467020	5.7	5730932	466510	5.6	5730886	465936	5.6	5730875	465721	5.7
5730951	467007	5.6	5730933	466496	5.6	5730872	465933	5.6	5730890	465724	5.7
5730951	466993	5.5	5730934	466482	5.6	5730858	465931	5.6	5730904	465726	5.6
5730952	466979	5.5	5730937	466468	5.6	5730843	465929	5.7	5730918	465728	5.7
5730952	466965	5.6	5730938	466454	5.7	5730829	465926	5.6	5730932	465729	5.7
5730952	466952	5.5	5730940	466440	5.5	5730814	465924	5.6	5730947	465729	5.6
5730952	466938	5.6	5730942	466426	5.6	5730800	465921	5.7	5730961	465731	5.6
5730952	466924	5.5	5730944	466412	5.6	5730771	465914	5.7	5730975	465732	5.6
5730952	466910	5.5	5730946	466399	5.5	5730757	465910	5.7	5730990	465734	5.6
5730953	466896	5.5	5730950	466384	5.6	5730743	465906	5.7	5731004	465736	5.6
5730954	466882	5.6	5730952	466370	5.6	5730729	465902	5.7	5731018	465738	5.7
5730955	466870	5.5	5730954	466356	5.6	5730715	465898	5.7	5731032	465740	5.6

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5731047	465742	5.6	5731124	465507	5.6	5730679	465214	2.7	5731091	465264	5.7
5731061	465744	5.6	5731110	465505	5.7	5730685	465201	2.7	5731104	465269	5.7
5731075	465747	5.6	5731096	465504	5.7	5730695	465197	2.6	5731132	465278	5.8
5731089	465749	5.6	5731081	465501	5.7	5730706	465205	2.7	5731146	465282	5.7
5731104	465752	5.6	5731067	465499	5.7	5730720	465210	4.3	5731160	465285	5.8
5731118	465754	5.5	5731053	465498	5.7	5730733	465214	4.8	5731175	465288	5.8
5731132	465756	5.6	5731038	465497	5.7	5730748	465215	4.9	5731203	465291	5.6
5731146	465758	5.5	5731024	465496	5.7	5730762	465215	5.1	5731217	465291	5.6
5731161	465760	5.5	5731010	465494	5.7	5730776	465216	5.6	5731231	465291	5.5
5731175	465761	5.5	5730996	465490	5.7	5730791	465216	5.7	5731245	465291	5.5
5731189	465763	5.4	5730982	465488	5.7	5730819	465220	5.7	5731260	465291	5.4
5731204	465764	5.3	5730967	465486	5.7	5730833	465222	5.7	5731288	465291	5.2
5731218	465764	5.2	5730953	465484	5.7	5730848	465225	5.7	5731302	465290	4.4
5731232	465766	5.0	5730939	465481	5.7	5730862	465227	5.7	5731317	465290	3.9
5731247	465767	5.0	5730925	465477	5.7	5730876	465229	5.7	5731328	465284	3.1
5731261	465768	4.8	5730911	465475	5.7	5730890	465232	5.7	5731334	465271	2.1
5731276	465769	4.8	5730897	465472	5.7	5730904	465235	5.7	5731340	465259	2.2
5731290	465770	4.6	5730884	465467	5.7	5730918	465239	5.7	5731346	465246	2.3
5731304	465770	4.3	5730870	465462	5.7	5730931	465244	5.7	5731354	465235	2.4
5731318	465770	4.1	5730856	465459	5.7	5730945	465246	5.7	5731363	465224	2.4
5731329	465762	3.7	5730842	465457	5.6	5730960	465248	5.7	5731371	465213	2.3
5731331	465748	2.9	5730827	465455	5.7	5730974	465249	5.7	5731378	465201	2.1
5731332	465734	2.8	5730813	465454	5.7	5730988	465249	5.7	5731384	465188	2.1
5731333	465720	3.0	5730798	465452	5.7	5730998	465252	5.7	5731390	465176	2.2
5731335	465706	3.2	5730784	465453	5.6	5731005	465253	5.8	5731396	465164	2.2
5731338	465692	3.2	5730769	465452	5.7	5731010	465255	5.8	5731403	465152	2.4
5731341	465679	3.1	5730755	465451	5.7	5731015	465258	5.8	5731411	465140	2.4
5731344	465665	2.7	5730741	465449	5.6	5731019	465262	5.8	5731419	465129	2.4
5731347	465651	2.7	5730727	465447	5.6	5731023	465267	5.8	5731426	465117	2.3
5731347	465637	2.5	5730712	465445	5.6	5731027	465271	5.8	5731434	465105	2.3
5731344	465624	2.3	5730698	465443	5.7	5731031	465276	5.8	5731442	465094	2.3
5731339	465611	2.5	5730684	465441	5.6	5731034	465281	5.8	5731443	465083	2.1
5731336	465597	2.7	5730669	465438	5.2	5731037	465286	5.8	5731430	465079	2.2
5731334	465583	2.9	5730655	465437	4.9	5731040	465291	5.8	5731416	465075	2.9
5731333	465569	2.9	5730641	465434	4.7	5731043	465297	5.8	5731403	465070	3.9
5731334	465555	3.0	5730627	465432	4.5	5731046	465303	5.8	5731389	465065	4.4
5731334	465541	3.3	5730616	465423	4.0	5731048	465308	5.8	5731376	465061	4.8
5731324	465534	3.4	5730614	465410	3.2	5731051	465314	5.8	5731362	465056	5.1
5731310	465533	3.5	5730617	465396	2.2	5731053	465320	5.8	5731349	465051	5.3
5731296	465531	3.9	5730622	465383	2.4	5731055	465326	5.8	5731335	465046	5.6
5731281	465529	4.2	5730625	465369	2.6	5731062	465331	5.8	5731321	465042	5.5
5731267	465526	4.3	5730629	465355	2.6	5731071	465324	5.7	5731306	465040	5.5
5731254	465522	4.5	5730630	465327	2.7	5731063	465305	5.7	5731293	465037	5.6
5731239	465519	4.6	5730633	465313	2.4	5731060	465300	5.8	5731278	465035	5.6
5731225	465516	4.7	5730637	465300	2.4	5731058	465296	5.8	5731264	465033	5.6
5731211	465513	4.8	5730641	465286	2.4	5731057	465290	5.8	5731250	465030	5.6
5731197	465511	4.8	5730645	465273	2.5	5731056	465278	5.8	5731236	465027	5.6
5731183	465510	5.0	5730649	465259	2.4	5731051	465264	5.7	5731222	465023	5.6
5731168	465510	5.1	5730653	465246	2.2	5731052	465252	5.7	5731208	465020	5.6
5731154	465509	5.3	5730661	465234	2.1	5731064	465253	5.8	5731194	465017	5.7
5731139	465508	5.6	5730671	465225	2.3	5731077	465259	5.7	5731179	465015	5.6

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5731165	465013	5.7	5730920	464719	5.6	5731615	464758	2.0	5731081	464448	5.6
5731151	465010	5.7	5730934	464722	5.7	5731619	464744	2.2	5731068	464441	5.6
5731136	465008	5.7	5730948	464726	5.7	5731623	464731	2.4	5731054	464435	5.6
5731122	465006	5.7	5730961	464729	5.7	5731630	464718	2.8	5731041	464429	5.6
5731108	465002	5.7	5730975	464733	5.7	5731637	464706	3.0	5731027	464424	5.6
5731094	464998	5.7	5730989	464737	5.7	5731646	464694	2.8	5731013	464418	5.6
5731080	464994	5.7	5731003	464741	5.7	5731654	464683	2.4	5730944	464394	5.9
5731067	464990	5.6	5731016	464745	5.8	5731663	464671	1.8	5730930	464389	5.7
5731052	464986	5.7	5731030	464748	5.7	5731666	464660	1.5	5730916	464385	5.4
5731038	464984	5.7	5731044	464752	5.7	5731654	464655	1.7	5730902	464380	5.2
5731024	464981	5.7	5731058	464756	5.7	5731639	464655	2.5	5730890	464372	4.8
5731010	464977	5.7	5731072	464758	5.7	5731625	464652	3.9	5730887	464358	4.1
5730996	464973	5.7	5731086	464761	5.7	5731611	464647	4.2	5730895	464347	2.7
5730982	464969	5.7	5731113	464770	5.7	5731598	464641	4.6	5730903	464335	2.5
5730968	464966	5.7	5731127	464775	5.7	5731585	464634	4.9	5730910	464322	2.9
5730953	464964	5.7	5731141	464779	5.7	5731573	464627	5.2	5730917	464309	2.9
5730939	464961	5.7	5731155	464782	5.7	5731560	464621	5.5	5730924	464297	2.7
5730924	464959	5.7	5731169	464785	5.7	5731546	464616	5.5	5730932	464284	2.6
5730910	464958	5.7	5731183	464788	5.7	5731532	464612	5.5	5730939	464272	2.5
5730895	464958	5.7	5731197	464792	5.7	5731518	464607	5.6	5730947	464260	2.6
5730881	464958	5.7	5731211	464795	5.6	5731504	464602	5.5	5730956	464248	2.6
5730867	464955	5.7	5731240	464802	5.6	5731491	464596	5.6	5730964	464236	2.6
5730853	464952	5.8	5731254	464805	5.7	5731478	464591	5.6	5730972	464224	2.7
5730839	464947	5.7	5731268	464810	5.6	5731464	464585	5.6	5730980	464212	3.1
5730825	464943	5.3	5731282	464814	5.6	5731451	464580	5.6	5730988	464200	3.3
5730811	464939	5.0	5731295	464819	5.6	5731437	464575	5.7	5730997	464188	3.2
5730798	464935	4.8	5731309	464824	5.6	5731423	464571	5.6	5731005	464176	3.3
5730784	464930	4.5	5731323	464828	5.6	5731409	464567	5.7	5731013	464164	3.6
5730771	464923	4.2	5731337	464833	5.6	5731395	464564	5.7	5731024	464162	3.7
5730765	464912	3.9	5731351	464837	5.6	5731381	464560	5.6	5731036	464170	4.2
5730764	464898	3.3	5731365	464840	5.5	5731367	464557	5.6	5731063	464181	4.7
5730766	464884	3.2	5731379	464844	5.6	5731353	464553	5.7	5731076	464188	5.4
5730770	464870	2.9	5731393	464848	5.5	5731339	464549	5.7	5731089	464194	5.5
5730775	464857	2.8	5731422	464854	5.5	5731325	464544	5.6	5731103	464199	5.5
5730780	464844	2.8	5731436	464857	5.5	5731312	464538	5.6	5731117	464205	5.5
5730784	464831	2.7	5731450	464859	5.4	5731299	464532	5.6	5731129	464212	5.5
5730790	464818	2.7	5731465	464861	5.5	5731286	464525	5.6	5731142	464219	5.6
5730796	464805	2.7	5731479	464863	5.4	5731273	464519	5.7	5731154	464227	5.6
5730802	464792	2.7	5731493	464866	5.3	5731259	464513	5.6	5731167	464234	5.5
5730807	464779	2.6	5731508	464867	4.9	5731246	464508	5.6	5731180	464242	5.5
5730813	464766	2.6	5731522	464869	4.6	5731232	464503	5.6	5731192	464249	5.6
5730818	464753	2.8	5731537	464870	4.3	5731218	464499	5.6	5731205	464257	5.5
5730823	464741	2.7	5731549	464865	3.9	5731204	464495	5.6	5731217	464264	5.5
5730831	464729	2.5	5731555	464853	2.8	5731190	464490	5.6	5731230	464271	5.6
5730838	464717	2.4	5731560	464840	2.6	5731176	464486	5.6	5731243	464278	5.6
5730845	464705	2.6	5731567	464828	2.8	5731163	464481	5.6	5731256	464285	5.6
5730853	464696	2.9	5731575	464816	2.7	5731149	464476	5.6	5731269	464291	5.6
5730865	464703	3.6	5731584	464805	2.4	5731135	464472	5.6	5731282	464298	5.6
5730878	464709	4.2	5731593	464794	2.2	5731121	464467	5.6	5731295	464304	5.6
5730892	464713	3.9	5731602	464783	2.0	5731108	464460	5.6	5731308	464311	5.6
5730906	464716	4.8	5731610	464771	2.0	5731094	464454	5.6	5731321	464318	5.5

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5731334	464325	5.6	5731779	464267	5.7	5731194	463926	4.1	5731761	463992	5.8
5731347	464332	5.6	5731766	464261	5.7	5731201	463914	2.9	5731773	464001	5.8
5731360	464338	5.6	5731739	464250	5.7	5731210	463902	2.5	5731784	464011	5.8
5731374	464344	5.6	5731731	464247	5.8	5731219	463891	2.0	5731796	464020	5.8
5731387	464350	5.6	5731725	464244	5.8	5731229	463879	2.2	5731807	464029	5.7
5731401	464356	5.6	5731719	464241	5.8	5731238	463868	2.5	5731818	464040	5.7
5731441	464374	5.6	5731711	464237	5.8	5731247	463856	2.9	5731828	464050	5.8
5731453	464383	5.6	5731703	464232	5.8	5731256	463844	3.2	5731839	464060	5.7
5731466	464391	5.6	5731697	464229	5.8	5731263	463831	3.4	5731850	464070	5.8
5731479	464397	5.6	5731691	464226	5.8	5731270	463818	3.5	5731861	464079	5.8
5731492	464403	5.6	5731686	464224	5.8	5731277	463805	3.4	5731873	464088	5.7
5731518	464417	5.6	5731680	464222	5.8	5731284	463793	3.1	5731885	464096	5.7
5731532	464423	5.7	5731673	464218	5.8	5731292	463780	2.6	5731898	464104	5.7
5731545	464430	5.7	5731663	464207	5.8	5731300	463768	2.5	5731910	464111	5.7
5731572	464442	5.7	5731654	464197	5.7	5731309	463757	2.4	5731922	464119	5.7
5731586	464448	5.6	5731642	464187	5.7	5731319	463746	2.5	5731934	464127	5.6
5731599	464453	5.6	5731629	464180	5.7	5731329	463735	2.6	5731947	464135	5.6
5731613	464460	5.6	5731616	464174	5.7	5731338	463724	2.6	5731959	464142	5.6
5731626	464467	5.6	5731604	464166	5.7	5731348	463715	2.7	5731971	464151	5.3
5731639	464474	5.6	5731591	464159	5.6	5731360	463721	2.8	5731983	464159	5.0
5731652	464480	5.6	5731579	464150	5.7	5731371	463730	3.4	5731996	464167	4.7
5731666	464486	5.5	5731568	464141	5.6	5731384	463736	4.1	5732008	464174	4.2
5731679	464492	5.5	5731555	464135	5.6	5731397	463743	4.3	5732019	464168	3.4
5731692	464498	5.4	5731541	464129	5.6	5731410	463751	4.5	5732028	464158	2.4
5731706	464504	5.1	5731528	464123	5.6	5731423	463759	4.7	5732037	464149	2.5
5731719	464510	4.8	5731514	464118	5.7	5731435	463767	4.9	5732049	464136	2.6
5731733	464516	4.5	5731501	464112	5.6	5731447	463775	5.0	5732058	464125	2.4
5731747	464516	4.1	5731487	464106	5.6	5731459	463783	5.0	5732068	464115	2.3
5731759	464508	3.2	5731474	464099	5.6	5731471	463792	5.1	5732077	464104	2.2
5731766	464495	2.7	5731462	464092	5.6	5731483	463800	5.2	5732084	464091	1.8
5731773	464483	2.5	5731449	464085	5.6	5731495	463808	5.2	5732090	464079	1.8
5731780	464471	2.4	5731436	464077	5.6	5731507	463816	5.2	5732098	464067	2.1
5731787	464459	2.1	5731424	464069	5.5	5731520	463824	5.3	5732107	464056	2.0
5731792	464445	1.9	5731412	464061	5.6	5731533	463831	5.4	5732116	464045	1.8
5731799	464432	2.4	5731400	464053	5.6	5731545	463838	5.4	5732124	464033	1.8
5731806	464420	2.4	5731388	464045	5.6	5731557	463846	5.5	5732140	464008	1.6
5731815	464409	2.6	5731376	464036	5.5	5731582	463862	5.5	5732145	463995	1.6
5731823	464398	2.5	5731364	464028	5.5	5731594	463871	5.6	5732138	463985	1.9
5731832	464388	2.6	5731351	464020	5.5	5731606	463880	5.6	5732127	463976	2.9
5731842	464378	2.5	5731339	464013	5.5	5731618	463889	5.6	5732115	463967	4.1
5731850	464366	2.4	5731326	464005	5.5	5731629	463898	5.7	5732103	463959	4.4
5731858	464354	2.4	5731314	463998	5.5	5731641	463907	5.7	5732092	463950	4.7
5731866	464342	2.2	5731301	463990	5.4	5731653	463915	5.7	5732080	463941	5.1
5731873	464330	1.6	5731288	463983	5.6	5731665	463924	5.7	5732069	463931	5.6
5731866	464320	5.5	5731275	463976	5.5	5731677	463932	5.7	5732058	463922	5.7
5731853	464314	2.8	5731262	463970	5.4	5731689	463940	5.8	5732048	463912	5.7
5731840	464306	4.2	5731249	463964	5.4	5731701	463949	5.8	5732037	463902	5.7
5731828	464299	4.3	5731235	463958	5.4	5731713	463958	5.7	5732026	463892	5.8
5731816	464291	4.8	5731221	463953	5.3	5731725	463967	5.8	5732016	463882	5.8
5731804	464283	5.3	5731208	463947	5.0	5731737	463976	5.8	5732005	463872	5.8
5731792	464274	5.6	5731196	463939	4.6	5731749	463984	5.8	5731994	463862	5.8

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5731984	463852	5.8	5731823	463413	3.8	5732378	463692	2.1	5732033	463174	2.5
5731973	463842	5.9	5731835	463422	4.0	5732392	463682	2.0	5732042	463162	2.5
5731962	463832	5.8	5731847	463430	4.1	5732402	463671	3.1	5732050	463150	2.4
5731951	463823	5.9	5731859	463439	4.4	5732409	463659	1.5	5732059	463139	2.4
5731940	463813	5.9	5731871	463447	4.6	5732417	463647	1.4	5732067	463127	2.2
5731930	463803	5.9	5731883	463456	4.6	5732424	463635	1.8	5732075	463115	2.5
5731919	463793	5.9	5731895	463463	4.8	5732434	463625	1.9	5732083	463103	2.6
5731907	463784	5.9	5731908	463472	4.9	5732445	463616	1.8	5732090	463090	3.0
5731884	463767	5.9	5731919	463481	5.1	5732457	463608	1.6	5732097	463077	3.1
5731872	463758	5.9	5731942	463500	5.2	5732470	463603	1.6	5732103	463064	3.0
5731861	463749	5.9	5731953	463509	5.6	5732469	463593	1.3	5732109	463051	2.8
5731850	463739	5.9	5731964	463519	5.7	5732457	463588	3.7	5732115	463038	2.6
5731839	463729	5.9	5731975	463529	5.7	5732443	463584	1.8	5732123	463027	2.3
5731828	463720	5.9	5731986	463538	5.7	5732429	463579	2.3	5732135	463032	2.3
5731816	463711	5.8	5731997	463547	5.9	5732416	463574	2.7	5732147	463041	2.9
5731793	463693	5.8	5732008	463557	5.8	5732403	463567	3.0	5732158	463050	3.6
5731781	463685	5.6	5732020	463566	5.8	5732391	463560	3.3	5732169	463059	4.3
5731769	463677	5.5	5732031	463576	5.9	5732379	463552	3.5	5732181	463069	4.7
5731757	463669	5.5	5732041	463585	5.9	5732368	463542	4.0	5732192	463078	5.0
5731745	463660	5.4	5732103	463645	5.9	5732357	463532	4.4	5732204	463087	5.2
5731733	463651	5.3	5732106	463646	6.0	5732346	463523	4.8	5732215	463096	5.3
5731721	463643	5.2	5732107	463643	6.0	5732323	463505	5.0	5732226	463106	5.5
5731697	463627	5.2	5732101	463637	6.0	5732312	463496	5.8	5732238	463116	5.6
5731685	463618	5.0	5732093	463645	5.9	5732301	463486	5.9	5732249	463125	5.7
5731673	463609	4.8	5732102	463656	5.9	5732290	463476	5.9	5732261	463134	5.7
5731661	463601	4.7	5732113	463665	5.9	5732280	463467	6.0	5732272	463142	5.8
5731649	463592	4.5	5732124	463675	5.9	5732269	463457	6.0	5732284	463151	5.8
5731638	463582	4.3	5732135	463685	5.9	5732248	463437	6.0	5732296	463160	5.8
5731628	463571	4.0	5732144	463696	5.9	5732236	463429	6.0	5732307	463169	5.8
5731621	463559	3.7	5732155	463707	5.9	5732202	463401	6.0	5732332	463186	5.9
5731619	463545	3.1	5732165	463717	5.9	5732191	463392	6.0	5732344	463194	5.9
5731625	463532	2.5	5732176	463727	5.8	5732181	463382	5.9	5732356	463203	5.9
5731634	463521	2.5	5732187	463737	5.8	5732170	463372	6.0	5732367	463212	5.9
5731645	463511	2.8	5732198	463747	5.7	5732159	463363	5.9	5732379	463221	5.9
5731655	463501	2.9	5732209	463756	5.7	5732149	463353	6.0	5732392	463229	5.9
5731665	463491	3.2	5732220	463766	5.6	5732138	463344	5.9	5732404	463237	5.9
5731673	463479	3.5	5732231	463776	5.3	5732126	463335	5.8	5732416	463245	6.0
5731682	463467	3.6	5732241	463786	5.1	5732115	463325	5.8	5732429	463253	5.9
5731690	463455	3.6	5732252	463796	4.8	5732105	463315	5.8	5732441	463260	5.9
5731698	463443	3.6	5732264	463805	4.6	5732094	463306	5.7	5732454	463268	5.8
5731707	463431	3.6	5732276	463812	4.2	5732083	463296	5.7	5732465	463277	5.8
5731715	463419	3.5	5732290	463811	3.6	5732072	463286	5.6	5732476	463288	5.8
5731722	463407	3.4	5732302	463803	2.4	5732061	463277	5.4	5732487	463297	5.8
5731731	463395	3.1	5732313	463794	2.2	5732050	463268	5.2	5732498	463308	5.4
5731741	463384	2.9	5732323	463783	1.8	5732039	463258	5.1	5732508	463318	5.0
5731751	463374	2.6	5732340	463761	1.5	5732028	463249	4.8	5732519	463327	4.9
5731764	463370	2.4	5732345	463748	2.4	5732017	463240	4.4	5732531	463336	4.7
5731777	463377	2.8	5732350	463735	1.4	5732013	463227	3.9	5732542	463346	4.5
5731788	463387	3.1	5732355	463722	1.8	5732015	463213	2.7	5732565	463365	4.3
5731800	463396	3.4	5732361	463709	1.9	5732019	463199	2.2	5732577	463374	3.5
5731811	463404	3.6	5732369	463698	2.1	5732026	463186	2.3	5732589	463380	3.2

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5732603	463378	3.1	5732439	462929	5.9	5732637	462756	5.7	5733048	462778	4.4
5732614	463369	3.0	5732428	462920	5.8	5732648	462765	5.8	5733040	462790	4.9
5732625	463359	2.5	5732406	462902	5.8	5732660	462774	5.8	5733032	462800	5.0
5732632	463348	2.0	5732395	462893	5.7	5732671	462783	5.8	5733018	462797	5.0
5732639	463335	2.2	5732384	462884	5.7	5732681	462793	5.8	5732992	462784	5.2
5732648	463324	2.5	5732374	462874	5.5	5732692	462804	5.8	5732979	462777	5.6
5732658	463315	2.6	5732363	462864	5.4	5732714	462823	5.8	5732966	462770	5.5
5732668	463304	2.4	5732354	462855	5.2	5732724	462833	5.8	5732954	462761	5.6
5732678	463295	2.3	5732343	462845	5.1	5732735	462843	5.7	5732943	462752	5.6
5732689	463285	2.0	5732334	462834	4.9	5732745	462853	5.8	5732932	462742	5.6
5732698	463275	1.9	5732324	462823	4.7	5732756	462864	5.8	5732922	462732	5.6
5732707	463263	1.7	5732313	462814	4.5	5732767	462873	5.7	5732912	462722	5.6
5732667	463168	2.7	5732302	462805	4.2	5732778	462882	5.8	5732902	462711	5.6
5732668	463169	3.8	5732292	462795	3.3	5732789	462892	5.7	5732892	462701	5.7
5732668	463171	3.8	5732293	462782	2.6	5732800	462902	5.7	5732863	462668	5.7
5732672	463171	3.8	5732301	462770	2.6	5732810	462912	5.6	5732853	462657	5.7
5732685	463172	3.7	5732310	462759	2.5	5732821	462922	5.6	5732844	462647	5.7
5732699	463176	3.5	5732319	462747	2.6	5732831	462933	5.5	5732834	462636	5.7
5732713	463181	3.3	5732327	462736	2.7	5732841	462944	5.5	5732825	462625	5.7
5732726	463186	3.2	5732335	462724	2.8	5732852	462954	5.5	5732817	462613	5.7
5732740	463191	2.7	5732343	462712	2.8	5732862	462964	5.5	5732809	462600	5.7
5732754	463192	2.5	5732352	462701	2.8	5732873	462974	5.5	5732800	462589	5.7
5732755	463182	2.3	5732361	462689	2.7	5732883	462984	5.4	5732791	462577	5.7
5732742	463180	2.4	5732370	462678	2.6	5732894	462994	5.4	5732782	462566	5.7
5732728	463180	2.8	5732378	462667	2.6	5732906	463003	5.2	5732774	462554	5.7
5732713	463181	2.8	5732388	462656	2.7	5732917	463012	4.9	5732765	462543	5.7
5732699	463177	3.0	5732396	462644	2.8	5732929	463020	4.6	5732756	462531	5.7
5732687	463169	3.3	5732404	462632	2.8	5732943	463023	4.3	5732747	462519	5.7
5732676	463160	3.4	5732413	462621	3.0	5732956	463017	3.3	5732738	462508	5.7
5732665	463151	3.6	5732422	462610	3.0	5732965	463008	2.5	5732728	462498	5.7
5732654	463142	3.9	5732431	462599	3.1	5732974	462996	2.4	5732719	462486	5.7
5732643	463132	4.0	5732441	462588	3.0	5732981	462985	2.3	5732712	462474	5.6
5732633	463122	4.5	5732450	462578	3.1	5732989	462973	2.3	5732705	462461	5.6
5732623	463111	4.8	5732462	462580	2.9	5732997	462962	2.5	5732698	462448	5.6
5732614	463101	4.9	5732473	462590	3.6	5733007	462951	2.6	5732690	462435	5.6
5732604	463090	5.4	5732484	462599	4.3	5733016	462941	2.4	5732683	462423	5.6
5732593	463080	5.5	5732491	462611	4.6	5733024	462930	1.9	5732676	462410	5.4
5732583	463070	5.6	5732493	462626	4.9	5733030	462917	1.7	5732668	462398	5.3
5732574	463059	6.0	5732495	462640	5.0	5733037	462905	1.9	5732660	462385	5.0
5732564	463048	6.0	5732501	462653	5.1	5733053	462882	1.8	5732652	462373	4.8
5732554	463038	6.0	5732513	462661	5.3	5733061	462871	1.6	5732643	462362	4.5
5732543	463028	6.0	5732526	462668	5.4	5733118	462776	3.1	5732634	462350	4.2
5732532	463018	6.0	5732538	462677	5.5	5733127	462768	1.9	5732624	462341	3.7
5732522	463009	6.0	5732549	462687	5.6	5733136	462761	1.9	5732618	462328	2.9
5732511	462999	5.9	5732557	462693	5.7	5733141	462757	1.7	5732624	462316	2.5
5732501	462988	6.0	5732568	462702	5.7	5733144	462753	3.6	5732636	462308	2.5
5732492	462978	5.9	5732580	462711	5.7	5733147	462749	3.9	5732646	462299	2.6
5732481	462968	5.9	5732591	462720	5.7	5733153	462747	1.8	5732655	462287	3.0
5732471	462958	5.9	5732603	462729	5.7	5733173	462740	1.9	5732662	462275	3.1
5732460	462949	5.9	5732614	462738	5.7	5733076	462775	4.8	5732669	462262	3.1
5732450	462939	5.8	5732625	462747	5.8	5733062	462775	3.6	5732676	462250	3.1

(continued)

### Appendix A4-1. Skeeter Lake Bathymetric Data

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5732682	462237	3.0	5733223	462606	3.9	5732912	462100	5.6	5733179	462000	5.7
5732693	462227	1.8	5733227	462592	3.8	5732902	462089	5.6	5733192	462007	5.7
5732703	462218	2.3	5733232	462579	3.8	5732892	462079	5.6	5733205	462014	5.6
5732712	462207	2.4	5733240	462567	4.1	5732882	462068	5.4	5733230	462028	5.7
5732722	462196	2.4	5733250	462556	4.0	5732872	462057	5.3	5733243	462036	5.7
5732731	462186	2.4	5733260	462546	3.6	5732860	462048	5.2	5733255	462043	5.7
5732744	462187	2.5	5733269	462535	3.0	5732848	462040	4.9	5733268	462052	5.7
5732750	462200	2.9	5733277	462523	2.7	5732836	462032	4.6	5733280	462060	5.7
5732755	462213	3.4	5733285	462511	2.5	5732824	462023	4.2	5733293	462067	5.7
5732763	462225	3.9	5733292	462498	2.0	5732817	462011	3.4	5733306	462074	5.7
5732773	462236	4.3	5733295	462484	1.7	5732821	461998	2.8	5733319	462082	5.7
5732783	462246	4.7	5733297	462470	1.8	5732828	461985	2.9	5733331	462090	5.7
5732794	462256	5.0	5733300	462456	2.4	5732830	461971	3.0	5733343	462098	5.7
5732805	462265	5.3	5733307	462443	2.7	5732828	461957	3.1	5733356	462106	5.7
5732816	462275	5.5	5733314	462431	2.9	5732825	461942	3.1	5733367	462115	5.6
5732827	462285	5.6	5733322	462419	3.3	5732825	461928	3.0	5733380	462124	5.3
5732839	462294	5.6	5733329	462407	3.0	5732827	461914	2.9	5733392	462132	5.0
5732849	462304	5.7	5733330	462394	3.0	5732829	461900	2.9	5733404	462140	4.7
5732860	462314	5.7	5733316	462390	3.2	5732831	461885	2.9	5733417	462145	4.2
5732871	462324	5.6	5733302	462386	4.0	5732833	461871	2.8	5733430	462141	3.6
5732882	462334	5.7	5733289	462379	4.3	5732836	461857	2.6	5733440	462131	3.0
5732892	462344	5.7	5733277	462371	4.7	5732841	461843	2.4	5733449	462120	3.2
5732903	462354	5.7	5733265	462363	4.9	5732847	461830	2.6	5733457	462108	3.2
5732913	462365	5.7	5733241	462345	5.3	5732854	461818	2.6	5733466	462097	3.1
5732923	462375	5.7	5733229	462337	5.6	5732862	461806	2.7	5733475	462086	3.2
5732934	462386	5.7	5733217	462328	5.7	5732871	461795	2.8	5733483	462074	3.0
5732945	462396	5.7	5733205	462319	5.6	5732882	461785	3.0	5733492	462063	3.1
5732955	462407	5.7	5733193	462311	5.6	5732895	461787	3.1	5733502	462052	3.1
5732965	462417	5.6	5733182	462302	5.6	5732906	461796	3.6	5733510	462041	3.0
5732975	462428	5.6	5733171	462293	5.6	5732916	461807	4.0	5733519	462029	2.9
5732986	462438	5.7	5733160	462283	5.6	5732927	461817	4.2	5733526	462017	2.5
5732997	462448	5.7	5733149	462274	5.6	5732939	461826	4.4	5733530	462003	2.4
5733007	462458	5.6	5733137	462266	5.7	5732951	461835	4.6	5733535	461990	2.1
5733018	462468	5.6	5733125	462256	5.7	5732963	461843	4.7	5733539	461976	2.1
5733028	462479	5.7	5733114	462247	5.7	5732976	461851	5.0	5733544	461963	2.5
5733038	462490	5.7	5733104	462237	5.6	5732987	461860	5.2	5733550	461949	3.2
5733049	462500	5.6	5733093	462227	5.7	5732999	461869	5.3	5733554	461936	3.6
5733059	462511	5.6	5733081	462218	5.7	5733011	461878	5.4	5733548	461924	4.0
5733069	462521	5.6	5733068	462210	5.7	5733023	461887	5.6	5733534	461922	4.5
5733081	462529	5.6	5733056	462203	5.7	5733035	461896	5.6	5733519	461921	4.9
5733094	462537	5.6	5733043	462195	5.7	5733047	461905	5.6	5733505	461917	5.0
5733106	462546	5.6	5733029	462188	5.7	5733058	461915	5.6	5733491	461912	4.8
5733117	462555	5.6	5733017	462181	5.7	5733070	461924	5.6	5733477	461907	5.4
5733128	462565	5.5	5733005	462173	5.7	5733082	461932	5.6	5733463	461902	5.5
5733140	462574	5.5	5732993	462164	5.7	5733093	461943	5.6	5733449	461897	5.5
5733153	462582	5.5	5732980	462156	5.7	5733106	461951	5.6	5733435	461891	5.6
5733165	462590	5.5	5732969	462147	5.7	5733118	461959	5.6	5733421	461885	5.6
5733177	462598	5.5	5732957	462138	5.6	5733129	461969	5.6	5733407	461880	5.6
5733190	462607	5.3	5732945	462129	5.7	5733140	461977	5.7	5733394	461874	5.6
5733202	462615	4.9	5732934	462120	5.7	5733152	461987	5.6	5733380	461869	5.6
5733215	462617	4.5	5732923	462110	5.6	5733166	461994	5.6	5733366	461862	5.6

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733353	461856	5.6	5733127	461453	4.9	5733731	461471	3.1	5733200	461086	3.1
5733340	461850	5.6	5733139	461462	5.1	5733731	461458	3.1	5733199	461072	3.0
5733326	461843	5.7	5733151	461471	5.2	5733720	461453	3.1	5733197	461058	2.7
5733313	461835	5.7	5733163	461478	5.3	5733705	461450	3.4	5733198	461043	2.5
5733300	461828	5.6	5733176	461485	5.4	5733691	461446	3.8	5733203	461030	2.2
5733287	461821	5.6	5733190	461491	5.6	5733677	461440	4.2	5733208	461016	2.3
5733274	461814	5.6	5733202	461499	5.6	5733664	461433	4.5	5733213	461003	2.6
5733262	461806	5.6	5733215	461506	5.6	5733651	461427	4.7	5733220	460990	2.7
5733249	461798	5.6	5733228	461512	5.6	5733638	461421	4.9	5733231	460985	2.7
5733236	461791	5.6	5733241	461519	5.6	5733625	461414	5.3	5733244	460992	3.0
5733223	461784	5.6	5733255	461524	5.6	5733612	461408	5.5	5733255	461002	3.3
5733210	461776	5.6	5733269	461529	5.7	5733598	461401	5.6	5733267	461011	3.8
5733198	461768	5.6	5733282	461535	5.6	5733585	461394	5.6	5733280	461018	4.1
5733185	461760	5.6	5733309	461546	5.6	5733573	461387	5.6	5733293	461025	4.4
5733173	461751	5.7	5733322	461552	5.6	5733560	461380	5.7	5733306	461031	4.7
5733161	461743	5.6	5733336	461558	5.7	5733548	461371	5.7	5733320	461036	4.9
5733148	461734	5.6	5733349	461565	5.6	5733535	461363	5.7	5733334	461040	5.2
5733136	461726	5.6	5733362	461572	5.6	5733523	461356	5.7	5733348	461046	5.4
5733124	461717	5.6	5733374	461579	5.6	5733510	461348	5.7	5733361	461051	5.5
5733112	461709	5.6	5733387	461586	5.7	5733498	461340	5.7	5733375	461057	5.6
5733100	461701	5.6	5733400	461593	5.7	5733485	461332	5.6	5733389	461062	5.6
5733087	461692	5.6	5733412	461601	5.7	5733473	461324	5.6	5733403	461065	5.6
5733075	461684	5.6	5733424	461609	5.7	5733460	461317	5.7	5733417	461068	5.7
5733062	461677	5.5	5733437	461617	5.7	5733447	461311	5.7	5733431	461072	5.6
5733049	461670	5.3	5733448	461626	5.7	5733433	461306	5.7	5733445	461075	5.6
5733036	461663	5.1	5733460	461635	5.7	5733419	461302	5.7	5733459	461078	5.6
5733023	461656	4.8	5733472	461642	5.7	5733404	461298	5.6	5733473	461083	5.6
5733009	461649	4.5	5733486	461648	5.7	5733390	461294	5.7	5733487	461089	5.6
5732996	461642	4.1	5733499	461655	5.7	5733376	461290	5.7	5733501	461093	5.6
5732987	461631	3.4	5733513	461660	5.7	5733361	461285	5.6	5733515	461097	5.6
5732986	461617	2.9	5733526	461665	5.6	5733348	461280	5.7	5733529	461101	5.6
5732988	461603	2.6	5733540	461671	5.6	5733334	461274	5.7	5733543	461106	5.6
5732994	461591	2.3	5733553	461677	5.5	5733320	461268	5.7	5733557	461111	5.6
5733002	461579	2.1	5733567	461682	5.5	5733307	461262	5.6	5733570	461117	5.6
5733010	461567	2.4	5733580	461688	5.3	5733293	461257	5.6	5733584	461123	5.6
5733019	461556	2.6	5733594	461694	5.0	5733279	461251	5.6	5733611	461134	5.6
5733025	461543	2.8	5733607	461699	4.9	5733265	461246	5.6	5733625	461139	5.6
5733031	461530	2.9	5733622	461701	4.7	5733251	461241	5.6	5733639	461143	5.6
5733037	461517	3.0	5733636	461699	4.3	5733237	461236	5.4	5733653	461147	5.6
5733043	461504	3.2	5733644	461688	3.9	5733223	461232	5.3	5733667	461152	5.6
5733048	461490	3.4	5733652	461676	3.4	5733208	461227	5.1	5733680	461158	5.6
5733051	461477	3.8	5733692	461605	1.8	5733182	461216	4.9	5733694	461165	5.6
5733051	461462	3.9	5733699	461592	1.4	5733171	461207	4.4	5733707	461170	5.6
5733050	461448	3.7	5733701	461578	1.6	5733165	461194	4.1	5733721	461175	5.6
5733049	461434	3.4	5733701	461564	1.8	5733167	461180	3.6	5733735	461180	5.5
5733052	461420	3.0	5733700	461550	2.1	5733172	461167	3.4	5733749	461184	5.5
5733064	461417	2.7	5733701	461536	2.5	5733178	461154	3.4	5733763	461188	5.2
5733078	461423	3.4	5733705	461522	2.7	5733183	461140	3.3	5733778	461192	4.8
5733090	461429	4.1	5733711	461509	2.9	5733188	461127	3.2	5733792	461195	4.7
5733103	461436	4.4	5733718	461497	3.0	5733194	461114	3.1	5733807	461196	4.6
5733115	461444	4.7	5733725	461484	3.1	5733198	461100	3.1	5733819	461192	4.4

(continued)



**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733821	461183	4.0	5733827	461199	3.6	5733493	460821	5.6	5733881	460676	5.0
5733820	461178	4.1	5733828	461201	3.6	5733478	460820	5.6	5733896	460680	4.6
5733816	461174	4.1	5733828	461203	3.5	5733464	460821	5.6	5733910	460684	4.2
5733813	461173	4.3	5733828	461205	3.5	5733450	460820	5.6	5733923	460686	3.2
5733811	461172	4.3	5733828	461207	3.4	5733435	460819	5.6	5733930	460675	2.4
5733810	461172	4.3	5733828	461209	3.3	5733421	460817	5.5	5733934	460662	2.3
5733809	461172	4.3	5733829	461210	3.3	5733406	460814	5.5	5733937	460649	2.4
5733809	461171	4.4	5733829	461211	3.2	5733392	460813	5.5	5733940	460635	2.6
5733808	461172	4.4	5733829	461213	3.1	5733377	460811	5.4	5733944	460622	2.7
5733809	461172	4.4	5733761	460990	3.1	5733363	460807	5.3	5733949	460608	2.8
5733809	461172	4.4	5733766	460995	5.7	5733350	460802	5.2	5733954	460595	3.0
5733810	461172	4.4	5733777	461002	5.6	5733337	460795	5.1	5733961	460583	3.1
5733811	461172	4.3	5733789	461010	5.6	5733324	460790	4.9	5733966	460570	3.2
5733811	461173	4.3	5733803	461015	5.5	5733310	460786	4.6	5733971	460557	3.3
5733812	461173	4.3	5733818	461019	5.4	5733296	460781	4.3	5733976	460543	3.5
5733812	461174	4.3	5733832	461021	5.3	5733282	460777	4.0	5733981	460530	3.5
5733813	461174	4.3	5733847	461024	5.0	5733269	460771	3.4	5733986	460516	3.6
5733814	461174	4.3	5733861	461027	4.7	5733272	460760	2.5	5733989	460502	3.2
5733814	461175	4.3	5733871	461019	4.4	5733280	460750	2.2	5733988	460488	2.8
5733815	461175	4.3	5733876	461006	4.0	5733293	460740	2.5	5733990	460474	2.6
5733816	461176	4.3	5733879	460992	3.9	5733301	460729	2.9	5733988	460460	2.5
5733816	461176	4.3	5733883	460978	3.9	5733310	460718	3.0	5733978	460451	3.2
5733817	461177	4.3	5733886	460964	4.0	5733319	460707	3.1	5733963	460451	4.1
5733817	461177	4.3	5733883	460952	3.9	5733329	460697	3.5	5733948	460452	4.4
5733818	461178	4.3	5733871	460950	3.8	5733335	460684	3.9	5733933	460453	4.6
5733818	461179	4.3	5733856	460948	4.3	5733339	460671	3.9	5733918	460454	4.8
5733819	461179	4.3	5733843	460942	4.7	5733342	460657	3.9	5733904	460451	5.1
5733819	461179	4.3	5733829	460939	4.9	5733345	460644	3.8	5733891	460445	5.4
5733820	461180	4.3	5733815	460935	5.3	5733349	460631	3.7	5733878	460438	5.5
5733820	461180	4.3	5733801	460932	5.5	5733350	460617	3.7	5733864	460432	5.5
5733821	461181	4.3	5733787	460929	5.5	5733350	460603	3.5	5733850	460427	5.6
5733821	461181	4.2	5733773	460925	5.5	5733354	460590	2.8	5733836	460425	5.6
5733821	461181	4.2	5733760	460920	5.6	5733625	460642	2.8	5733822	460422	5.7
5733822	461182	4.2	5733747	460914	5.6	5733631	460641	5.7	5733807	460419	5.7
5733822	461182	4.1	5733733	460909	5.6	5733638	460638	5.7	5733793	460418	5.6
5733822	461182	4.1	5733719	460905	5.6	5733651	460634	5.6	5733778	460416	5.6
5733823	461182	4.1	5733691	460897	5.6	5733665	460633	5.6	5733764	460414	5.7
5733823	461183	4.1	5733677	460893	5.6	5733680	460635	5.6	5733749	460411	5.7
5733824	461183	4.1	5733664	460888	5.6	5733694	460638	5.6	5733735	460407	5.6
5733824	461183	4.1	5733650	460882	5.6	5733708	460641	5.6	5733721	460403	5.7
5733825	461183	4.1	5733637	460876	5.6	5733721	460643	5.6	5733707	460398	5.6
5733825	461184	4.1	5733625	460870	5.6	5733737	460645	5.6	5733693	460395	5.7
5733826	461185	4.0	5733611	460864	5.6	5733752	460648	5.6	5733678	460395	5.6
5733826	461187	4.0	5733598	460859	5.6	5733766	460652	5.7	5733664	460394	5.6
5733826	461189	3.9	5733584	460854	5.6	5733780	460656	5.7	5733649	460393	5.6
5733826	461190	3.9	5733571	460849	5.6	5733794	460659	5.7	5733634	460391	5.6
5733826	461192	3.9	5733556	460847	5.6	5733809	460663	5.6	5733620	460389	5.6
5733826	461193	3.8	5733542	460846	5.6	5733823	460667	5.6	5733605	460387	5.7
5733826	461195	3.8	5733528	460843	5.6	5733837	460670	5.7	5733591	460384	5.7
5733827	461196	3.7	5733515	460838	5.6	5733853	460673	5.6	5733577	460380	5.6
5733827	461198	3.7	5733502	460831	5.6	5733866	460674	5.4	5733564	460375	5.6

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733549	460374	5.6	5733815	460177	5.6	5733737	459941	5.6	5733707	459683	5.5
5733535	460376	5.6	5733830	460178	5.6	5733723	459940	5.6	5733721	459688	5.6
5733520	460376	5.6	5733844	460180	5.6	5733708	459938	5.6	5733735	459692	5.6
5733492	460372	5.5	5733859	460182	5.6	5733694	459936	5.6	5733750	459697	5.5
5733477	460371	5.4	5733874	460184	5.6	5733679	459934	5.6	5733764	459701	5.6
5733463	460369	5.3	5733888	460185	5.6	5733665	459931	5.6	5733778	459706	5.6
5733449	460367	5.2	5733903	460185	5.6	5733651	459928	5.6	5733792	459711	5.6
5733435	460364	5.0	5733918	460187	5.6	5733637	459925	5.6	5733807	459713	5.5
5733420	460361	4.7	5733933	460188	5.6	5733623	459922	5.6	5733822	459714	5.6
5733406	460358	4.4	5733947	460190	5.6	5733609	459919	5.6	5733836	459715	5.5
5733398	460351	3.8	5733962	460191	5.5	5733594	459917	5.5	5733851	459717	5.5
5733403	460338	2.9	5733977	460193	5.3	5733580	459914	5.5	5733866	459720	5.5
5733405	460324	3.3	5733992	460195	5.0	5733567	459910	5.5	5733880	459724	5.6
5733407	460310	3.6	5734006	460196	4.8	5733553	459907	5.4	5733895	459726	5.6
5733408	460296	3.7	5734021	460195	4.6	5733539	459904	5.2	5733910	459726	5.6
5733407	460282	3.6	5734028	460184	4.1	5733524	459902	5.1	5733969	459726	5.6
5733407	460268	3.4	5734035	460172	3.9	5733511	459899	4.9	5733983	459725	5.5
5733410	460255	2.6	5734044	460161	4.0	5733497	459895	4.6	5733998	459724	5.5
5733414	460241	2.5	5734053	460150	3.5	5733483	459890	4.4	5734013	459724	5.5
5733416	460227	3.3	5734060	460138	3.0	5733476	459880	3.9	5734027	459724	5.4
5733417	460213	3.5	5734067	460125	2.6	5733478	459866	3.4	5734042	459724	5.3
5733418	460199	3.5	5734068	460100	1.8	5733482	459852	3.3	5734072	459722	5.2
5733417	460185	3.3	5734064	460087	2.5	5733487	459838	3.3	5734086	459720	4.7
5733417	460171	2.9	5734067	460073	3.4	5733490	459824	3.5	5734101	459718	4.2
5733421	460158	2.6	5734072	460060	3.4	5733490	459810	3.7	5734109	459710	3.9
5733430	460147	2.7	5734077	460046	3.2	5733491	459796	3.7	5734110	459696	3.0
5733438	460135	2.9	5734079	460032	2.8	5733492	459782	3.7	5734112	459682	3.1
5733442	460122	3.0	5734079	460018	2.5	5733492	459768	3.5	5734115	459669	3.2
5733449	460112	3.1	5734076	460006	2.7	5733494	459754	3.4	5734119	459655	3.1
5733463	460113	3.0	5734063	460002	3.3	5733496	459740	3.2	5734123	459642	3.1
5733478	460116	3.5	5734049	460000	4.3	5733499	459726	3.6	5734123	459628	2.7
5733508	460119	4.1	5734034	460000	4.5	5733499	459711	3.9	5734123	459614	2.4
5733522	460121	4.9	5734020	460000	4.7	5733499	459697	3.9	5734122	459586	2.4
5733537	460123	5.1	5734005	459999	5.0	5733500	459683	3.9	5734124	459572	2.3
5733552	460127	5.3	5733991	459996	5.2	5733501	459669	3.7	5734127	459558	2.4
5733581	460133	5.4	5733977	459993	5.4	5733504	459655	3.5	5734125	459545	2.5
5733595	460136	5.5	5733964	459988	5.5	5733506	459641	3.5	5734119	459532	2.6
5733609	460140	5.6	5733950	459983	5.5	5733509	459628	3.5	5734111	459521	2.8
5733624	460142	5.6	5733936	459979	5.5	5733521	459624	3.4	5734108	459508	3.2
5733639	460144	5.6	5733922	459978	5.6	5733536	459627	3.9	5734108	459494	3.1
5733654	460145	5.6	5733908	459975	5.6	5733550	459631	4.5	5734102	459483	2.6
5733668	460148	5.6	5733893	459972	5.6	5733565	459635	4.7	5734089	459484	2.4
5733683	460150	5.6	5733879	459970	5.6	5733579	459641	5.0	5734074	459486	3.2
5733698	460154	5.6	5733865	459966	5.6	5733593	459647	5.3	5734060	459485	4.2
5733712	460157	5.6	5733851	459963	5.6	5733608	459652	5.4	5734045	459483	4.7
5733727	460160	5.6	5733836	459960	5.6	5733622	459657	5.5	5734031	459480	4.9
5733741	460162	5.6	5733808	459954	5.6	5733636	459662	5.5	5734017	459478	5.1
5733756	460165	5.6	5733794	459951	5.6	5733650	459667	5.5	5734002	459477	5.4
5733771	460169	5.6	5733780	459948	5.6	5733664	459671	5.5	5733988	459476	5.5
5733785	460173	5.6	5733766	459945	5.6	5733678	459676	5.5	5733974	459474	5.6
5733800	460175	5.6	5733752	459943	5.6	5733692	459680	5.6	5733960	459471	5.5

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
5733945	459469	5.6	5733639	459207	5.4	5734061	458968	4.1	5733476	458783	2.7
5733931	459468	5.5	5733654	459211	5.5	5734046	458968	4.4	5733476	458769	2.9
5733916	459465	5.5	5733668	459214	5.5	5734032	458970	4.7	5733477	458756	3.0
5733902	459462	5.5	5733683	459214	5.5	5734017	458972	4.7	5733478	458742	3.2
5733888	459459	5.6	5733698	459214	5.5	5734003	458975	4.7	5733472	458730	3.7
5733873	459457	5.5	5733712	459215	5.5	5733988	458977	4.8	5733467	458718	3.8
5733859	459455	5.5	5733727	459217	5.5	5733975	458973	5.2	5733476	458709	3.9
5733844	459455	5.5	5733742	459219	5.5	5733961	458969	5.6	5733490	458707	4.3
5733829	459455	5.6	5733756	459219	5.5	5733947	458965	5.6	5733505	458707	4.5
5733815	459455	5.5	5733771	459220	5.5	5733933	458960	5.6	5733520	458707	4.8
5733800	459455	5.5	5733785	459218	5.5	5733919	458958	5.6	5733534	458706	5.0
5733785	459454	5.5	5733814	459214	5.5	5733904	458958	5.6	5733549	458706	5.2
5733770	459454	5.5	5733828	459211	5.5	5733890	458957	5.6	5733564	458706	5.3
5733756	459452	5.5	5733843	459210	5.5	5733875	458955	5.6	5733579	458707	5.3
5733741	459450	5.6	5733858	459210	5.5	5733861	458953	5.6	5733593	458708	5.4
5733727	459448	5.5	5733872	459209	5.5	5733847	458950	5.5	5733608	458709	5.4
5733712	459446	5.6	5733887	459207	5.5	5733832	458947	5.6	5733623	458711	5.5
5733698	459445	5.5	5733901	459205	5.5	5733818	458944	5.5	5733637	458711	5.4
5733683	459443	5.5	5733915	459204	5.5	5733803	458944	5.6	5733652	458712	5.4
5733668	459440	5.5	5733930	459202	5.5	5733789	458943	5.5	5733667	458711	5.4
5733654	459437	5.5	5733945	459202	5.5	5733774	458944	5.5	5733682	458710	5.5
5733640	459433	5.5	5733959	459202	5.5	5733759	458945	5.5	5733696	458710	5.5
5733626	459429	5.5	5733974	459203	5.5	5733744	458945	5.5	5733711	458709	5.5
5733612	459426	5.5	5733989	459203	5.5	5733730	458946	5.5	5733725	458707	5.5
5733584	459417	5.4	5734003	459202	5.5	5733715	458946	5.5	5733740	458705	5.5
5733570	459414	5.3	5734018	459202	5.5	5733700	458944	5.5	5733754	458705	5.5
5733556	459412	5.1	5734032	459201	5.4	5733686	458943	5.5	5733769	458706	5.5
5733542	459408	4.9	5734047	459199	5.3	5733671	458942	5.5	5733784	458706	5.5
5733528	459404	4.6	5734061	459197	5.2	5733657	458943	5.5	5733799	458705	5.5
5733517	459396	4.3	5734076	459195	5.1	5733642	458943	5.5	5733828	458704	5.5
5733512	459383	3.9	5734091	459196	4.7	5733627	458943	5.5	5733843	458702	5.5
5733508	459370	3.6	5734106	459198	4.6	5733613	458942	5.5	5733857	458702	5.5
5733508	459356	3.3	5734120	459198	4.5	5733598	458941	5.5	5733872	458700	5.5
5733509	459342	2.9	5734133	459193	4.3	5733584	458940	5.4	5733886	458698	5.5
5733510	459328	3.0	5734140	459181	4.0	5733569	458939	5.3	5733901	458697	5.5
5733508	459314	2.9	5734144	459168	3.5	5733554	458938	5.1	5733915	458696	5.5
5733507	459300	2.5	5734142	459154	2.7	5733540	458936	4.9	5733930	458695	5.5
5733504	459287	2.7	5734141	459140	2.5	5733526	458935	4.7	5733945	458695	5.4
5733502	459273	2.6	5734142	459126	2.9	5733511	458935	4.5	5733960	458695	5.5
5733502	459259	2.0	5734144	459098	2.8	5733497	458934	4.4	5733974	458693	5.5
5733504	459245	2.4	5734143	459084	2.4	5733484	458930	4.1	5733989	458693	5.5
5733510	459232	2.4	5734143	459070	2.2	5733476	458919	3.3	5734004	458693	5.4
5733515	459219	2.8	5734136	459044	1.9	5733473	458906	3.0	5734019	458692	5.4
5733523	459208	3.4	5734130	459032	1.9	5733474	458892	2.7	5734033	458690	5.4
5733537	459205	3.9	5734120	459021	1.9	5733476	458878	2.8	5734048	458687	5.4
5733550	459200	4.3	5734114	459009	2.3	5733477	458865	2.7	5734062	458686	5.3
5733565	459200	4.6	5734110	458996	2.6	5733479	458851	2.6	5734077	458685	5.3
5733580	459201	4.7	5734109	458982	2.5	5733479	458837	2.8	5734091	458682	5.2
5733595	459201	5.1	5734104	458970	2.5	5733478	458824	2.9	5734106	458680	5.2
5733610	459202	5.3	5734090	458967	2.6	5733477	458810	2.7	5734120	458680	5.2
5733624	459205	5.5	5734075	458968	3.3	5733476	458797	2.6	5734135	458680	5.1

(continued)

### Appendix A4-1. Skeeter Lake Bathymetric Data

UTM		Depth	UTM		Depth	UTM		Depth	UTM		Depth
Easting	Northing	(m)	Easting	Northing	(m)	Easting	Northing	(m)	Easting	Northing	(m)
5734150	458678	4.9	5733717	458438	5.4	5733659	458205	5.4	5733788	457963	5.5
5734164	458675	4.6	5733704	458434	5.4	5733673	458204	5.5	5733774	457963	5.4
5734176	458670	4.3	5733691	458429	5.4	5733687	458201	5.4	5733760	457961	5.5
5734180	458657	3.4	5733678	458423	5.4	5733701	458198	5.5	5733746	457961	5.4
5734181	458643	3.1	5733665	458418	5.4	5733716	458197	5.4	5733731	457962	5.4
5734179	458629	2.7	5733652	458411	5.4	5733730	458196	5.4	5733716	457965	5.5
5734178	458616	2.7	5733639	458406	5.4	5733745	458195	5.5	5733703	457968	5.5
5734179	458602	2.6	5733625	458401	5.5	5733760	458194	5.4	5733689	457970	5.5
5734177	458588	2.3	5733611	458400	5.4	5733774	458193	5.4	5733675	457973	5.5
5734176	458574	2.9	5733597	458402	5.4	5733789	458192	5.5	5733661	457976	5.5
5734175	458561	3.2	5733583	458406	5.4	5733803	458190	5.4	5733647	457975	5.5
5734175	458547	3.4	5733569	458410	5.4	5733818	458188	5.5	5733634	457974	5.5
5734175	458533	3.5	5733555	458415	5.4	5733832	458186	5.4	5733619	457974	5.5
5734177	458519	3.5	5733541	458421	5.4	5733861	458184	5.4	5733605	457974	5.5
5734179	458505	3.3	5733527	458422	5.4	5733876	458184	5.4	5733591	457974	5.4
5734180	458491	3.0	5733513	458423	5.3	5733891	458184	5.5	5733576	457974	5.5
5734178	458478	2.5	5733498	458426	5.0	5733906	458184	5.4	5733563	457973	5.4
5734173	458465	2.0	5733484	458427	4.7	5733920	458183	5.5	5733549	457971	5.4
5734169	458452	2.5	5733470	458425	4.5	5733935	458183	5.4	5733535	457969	5.5
5734166	458440	2.7	5733456	458422	4.4	5733950	458182	5.4	5733521	457968	5.5
5734153	458443	2.4	5733442	458418	4.3	5733964	458180	5.4	5733507	457968	5.4
5734139	458447	3.2	5733430	458412	4.0	5733979	458178	5.4	5733493	457968	5.5
5734125	458450	4.1	5733421	458402	3.6	5733994	458178	5.4	5733479	457968	5.4
5734111	458454	4.4	5733421	458388	2.7	5734008	458176	5.4	5733465	457967	5.4
5734097	458457	4.6	5733423	458375	2.6	5734022	458173	5.3	5733452	457963	5.3
5734083	458461	4.7	5733426	458361	2.6	5734037	458174	5.2	5733438	457962	5.2
5734069	458460	4.9	5733428	458348	2.6	5734052	458174	5.1	5733424	457961	5.0
5734055	458457	5.2	5733429	458334	2.8	5734066	458172	5.1	5733410	457960	4.9
5734041	458455	5.3	5733429	458321	2.9	5734095	458164	5.0	5733395	457961	4.7
5734028	458452	5.4	5733428	458307	3.2	5734109	458160	4.7	5733381	457961	4.5
5734013	458449	5.4	5733425	458294	3.3	5734123	458156	4.5	5733368	457959	4.0
5734000	458447	5.4	5733421	458281	3.3	5734136	458151	4.2	5733360	457949	3.8
5733986	458444	5.4	5733419	458268	3.0	5734149	458143	3.9	5733350	457940	3.5
5733972	458441	5.4	5733417	458254	2.6	5734152	458132	2.6	5733341	457930	3.1
5733958	458439	5.4	5733416	458241	2.4	5734133	458096	1.8	5733338	457918	2.5
5733944	458437	5.4	5733424	458217	2.2	5734126	458084	2.8	5733337	457904	2.4
5733930	458434	5.4	5733438	458214	2.2	5734123	458071	3.0	5733336	457891	2.5
5733916	458432	5.5	5733453	458215	3.0	5734123	458057	3.3	5733335	457878	2.4
5733902	458430	5.4	5733467	458215	3.7	5734124	458043	3.4	5733334	457865	2.3
5733887	458429	5.4	5733482	458215	4.2	5734122	458030	3.2	5733335	457839	1.9
5733873	458428	5.4	5733497	458215	4.5	5734114	458019	2.9	5733335	457826	1.9
5733859	458427	5.4	5733512	458214	4.6	5734106	458008	2.8	5733336	457813	2.9
5733845	458428	5.4	5733526	458212	4.7	5734088	457986	2.5	5733335	457800	3.6
5733830	458427	5.5	5733541	458211	5.0	5733902	457958	4.4	5733336	457787	4.1
5733816	458426	5.4	5733556	458209	5.4	5733888	457956	5.4	5733336	457773	4.2
5733802	458424	5.4	5733570	458208	5.4	5733873	457955	5.5	5733337	457760	4.3
5733788	458426	5.4	5733585	458207	5.4	5733859	457954	5.5	5733334	457747	4.3
5733774	458429	5.4	5733600	458206	5.5	5733845	457956	5.5	5733339	457737	4.3
5733760	458432	5.4	5733616	458207	5.4	5733831	457959	5.5	5733352	457732	4.2
5733746	458435	5.4	5733630	458208	5.5	5733817	457962	5.5	5733366	457728	4.6
5733731	458438	5.5	5733644	458207	5.5	5733803	457963	5.5	5733380	457724	4.7

(continued)

**Appendix A4-1. Skeeter Lake Bathymetric Data (completed)**

UTM		Depth
Easting	Northing	(m)
5733394	457721	4.7
5733406	457716	5.2
5733421	457713	5.4
5733435	457712	5.4
5733450	457710	5.4
5733464	457709	5.4
5733479	457710	5.4
5733493	457710	5.4
5733508	457710	5.5
5733523	457709	5.4
5733537	457708	5.4
5733552	457707	5.4
5733566	457705	5.4
5733581	457704	5.4
5733595	457704	5.4
5733610	457704	5.4
5733624	457704	5.4
5733639	457705	5.4
5733653	457703	5.4
5733667	457701	5.4
5733682	457699	5.4
5733696	457696	5.4
5733710	457694	5.4
5733725	457693	5.4
5733739	457692	5.4
5733754	457690	5.4
5733768	457689	5.4
5733783	457688	5.4
5733797	457686	5.4
5733812	457686	5.4
5733826	457686	5.4
5733841	457686	5.4
5733856	457686	5.3
5733870	457685	5.4
5733885	457684	5.3
5733899	457682	5.4
5733914	457680	5.3
5733928	457678	5.4
5733944	457676	5.3
5733957	457673	5.3
5733971	457670	5.1
5733985	457667	5.1
5734000	457663	5.0

**Appendix A4-2. Start Lake Bathymetric Data**

UTM			UTM			UTM			UTM		
Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)	Easting	Northing	Depth (m)
382716	6365217	8	382825	6364978	9	382967	6364827	7	383201	6364801	12
382724	6365215	4	382821	6364962	5	382965	6364820	5	383191	6364794	11
382722	6365201	7	382827	6364958	4	382964	6364809	3	383173	6364784	9
382729	6365191	7	382843	6364954	5	382973	6364796	3	383162	6364780	7
382734	6365187	5	382855	6364947	5	382989	6364787	2	383153	6364774	7
382675	6365120	9	382878	6364944	6	382997	6364784	2	383145	6364767	6
382666	6365113	9	382888	6364949	8	383013	6364792	2	383140	6364763	5
382659	6365101	8	382899	6364956	10	383021	6364811	3	383134	6364746	2
382662	6365094	7	382915	6364967	10	383026	6364821	5	383145	6364731	2
382665	6365086	6	382924	6364978	9	383036	6364835	8	383154	6364726	3
382669	6365078	5	382929	6364985	8	383041	6364842	10	383163	6364730	4
382673	6365071	5	382945	6365003	7	383051	6364861	13	383184	6364738	4
382681	6365063	5	382951	6365012	7	383065	6364877	14	383198	6364742	5
382696	6365063	6	382963	6365014	6	383075	6364890	13	383219	6364755	5
382705	6365073	8	382968	6365008	5	383085	6364901	11	383236	6364769	6
382709	6365080	9	382975	6364999	5	383093	6364908	9	383243	6364775	7
382718	6365095	9	382981	6364991	5	383099	6364912	7	383258	6364784	6
382724	6365100	10	382960	6364971	6	383112	6364914	4	383267	6364791	6
382735	6365109	10	382946	6364962	7	383117	6364905	6	383275	6364796	6
382744	6365114	11	382931	6364947	8	383126	6364900	7	383283	6364798	6
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382757	6365049	10	382981	6364896	12	383088	6364766	3	383179	6364709	3
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382801	6365053	11	383027	6364959	6	383163	6364823	13	383148	6364672	6
382809	6365059	11	383035	6364967	3	383174	6364836	13	383168	6364670	3
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