CopperFox Metals Inc.

Schaft Creek Project

British Columbia, Canada

Schaft Creek Project 2006 Hydrology Baseline Report

Prepared by:

Rescan Tahltan Environmental Consultants
Vancouver, British Columbia

March 2007

EXECUTIVE SUMMARY

Executive Summary

This report describes the 2006 baseline surface hydrology program in the Schaft Creek Project study area. The Schaft Creek Project is located directly west of Edziza Provincial Park and approximately 140 km southwest of Dease Lake in Northern British Columbia, Canada. The current mine plan has the main pit located within the Schaft Creek watershed, while the camp and the airstrip will be located in the Mess Creek watershed. Currently there are three potential locations for the tailings impoundment; in the Schaft Creek, Hickman Creek and Skeeter Lake watersheds. Hickman Creek is a tributary of Schaft Creek. Both Schaft Creek and Skeeter Lake drain into Mess Creek. Mess Creek drains an upland area to the east of the Coast Mountains in the Tahltan Highlands of the Boundary Mountain Ranges. At Telegraph Creek, Mess Creek discharges into the Stikine River, which eventually discharges into the Pacific Ocean.

Rescan Environmental Services Ltd. (Rescan) established eight automated hydrometric stations for the baseline monitoring program in the spring of 2006. Half of the stations monitored flows from small watersheds (less than 40 km^2) and half monitored flows from larger watersheds (greater than 40 km^2). The hydrometric stations remained active during the open-water season of May through October. However, two of the stations were damaged during the freshet (Sc-1 and Hctr-1). Consequently, these stations only collected quality data during June and July.

At each hydrometric monitoring location, several manual flow measurements were conducted. The manual flow measurements and concurrently measured water level (or stage) were used to establish stage-discharge rating curves. The rating curves were subsequently used to convert the continuous water level data recorded at each station to stream flow hydrographs. For most stations, robust rating curves were established. However, for the Mess-1 and Sc-1 stations, the rating curves should be improved upon with additional data in 2007.

Using the available flow data a number of key hydrological parameters were obtained including annual runoff, average monthly discharge, watershed unit yield, and peak and low flow estimates. Monthly average flow and annual runoff from watersheds in the Schaft Creek area are summarized in the report and are consistent with those observed in other watersheds gauged by Rescan in the vicinity of the Project area. Extreme high flows observed during the period of observation at each monitoring location range from 2.1m^3/s to 86.5m^3/s. Minimum daily flows ranged from 0.01m^3/s to 2.2m^3/s between hydrometric stations.

The baseline surface hydrology program will continue in 2007. All existing hydrometric stations will be re-activated in the spring. One additional station will be built to monitoring flows from watershed that has been identified as a potential site of the tailings impoundment but which was not monitored in 2006. Manual flow measurements will continue to be made at each station to improve the existing stage-discharge rating curves. Due to the substantial glacier and ice field coverage and their hydrological importance to the watersheds in the Project area it is recommended that a glacial monitoring program be investigated in 2007.

TABLE OF CONTENTS

Schaft Creek Project 2006 Hydrology Baseline Report

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF FIGURES

Figure **Page**

LIST OF TABLES

Table **Page**

LIST OF PLATES

Plate **Page**

1. INTRODUCTION

1. Introduction

The CopperFox Schaft Creek copper-gold-molybdenum-silver Project (the Project) is located approximately 140 km southwest of Dease Lake in Northern British Columbia (Figure 1.1-1). A surface hydrology monitoring program was initiated in the spring of 2006 in the Project area. Eight automated hydrometric stations were installed and operated throughout the open-waters season. The program was initiated to assess the baseline hydrology conditions of the area in support of Project water management planning and the environmental impact assessment process.

This report describes the results from the 2006 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 produce estimates of key hydrological parameters such as annual runoff, monthly flows, and extreme (high and low) flows experienced in the Project area during 2006. The report also provides a summary of regional hydrological data sources that will be used as part of a regional analysis to estimate the expected normal and range of variability of hydrologic conditions in the Project area in advance of the environmental impact assessment. The main body of the report is divided into three sections:

- description of the hydrological setting (Chapter 2);
- description of the results of the surface hydrology monitoring program (Chapter 3); and
- presentation of recommendations for the 2007 monitoring program (Chapter 4).

A summary of the all the manual flow measurements conducted and daily average flows obtained during 2006 are provided in appendices 1 and 2.

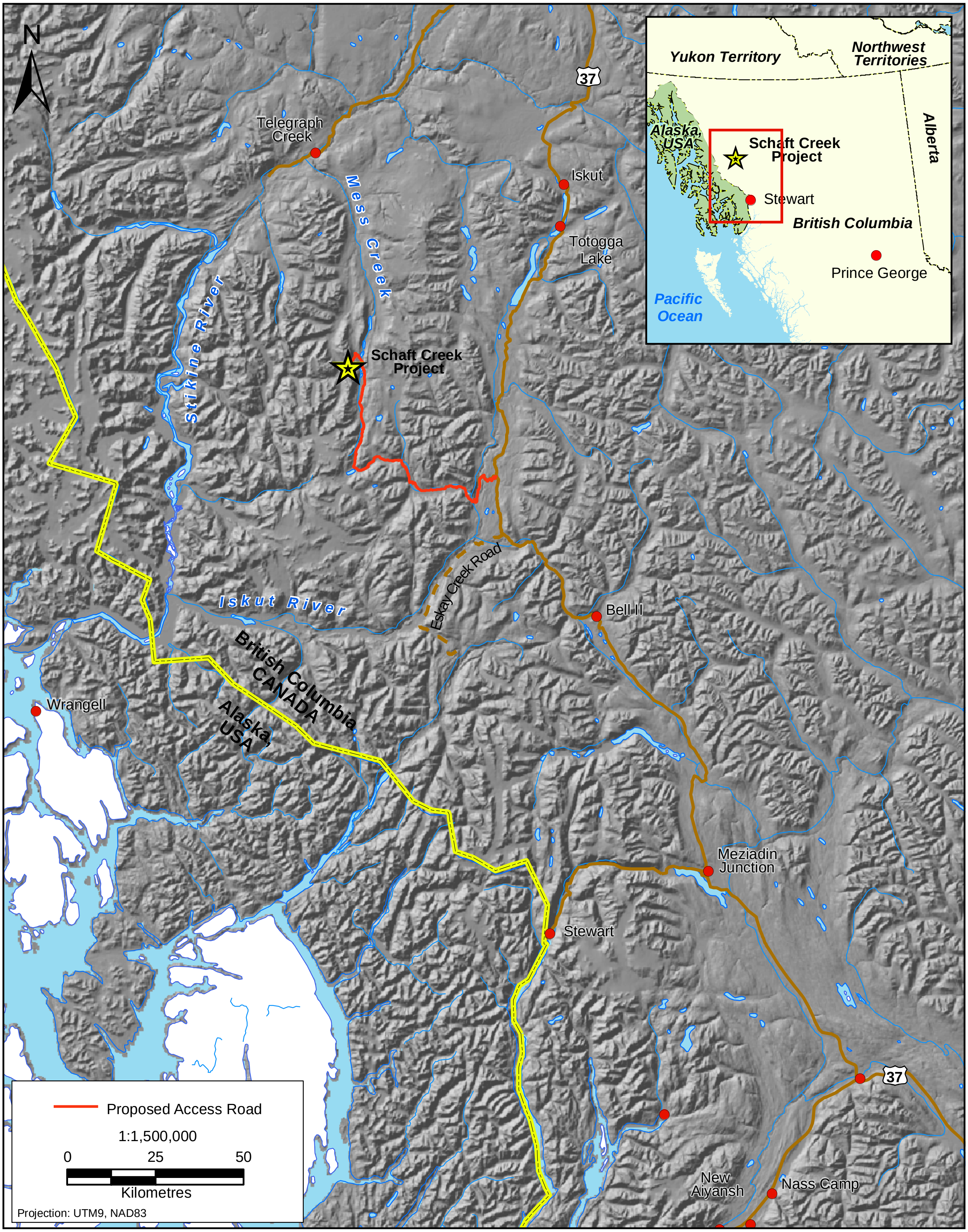

FIGURE 1.1-1

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Schaft Project Regional Location

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2. HYDROLOGICAL SETTING

2. Hydrological Setting

This section provides some general statements about the hydrological regime within the study area, discusses the main flow generating processes and outlines available regional hydrological data.

2.1 Study Area Catchments

The Project is located in the Mess Creek watershed (BC Water Resources Catchment WA25100110) (Fig. 2.1-1). Mess Creek drains an area of 2,306 km^2 (Table 2.1-1) and is a main tributary of the Stikine River, which is one of the largest watersheds in British Columbia. Mess Creek encompasses Schaft Creek and receives flow from three glaciers in Mount Edziza Provincial Park via Tadekho Creek, Nagha Creek and Taweh Sezill Creek. The confluence of Mess Creek and the Stikine River is near the village of Telegraph Creek. After its confluence with Mess Creek, the Stikine River flows to the southwest discharging to the Pacific Ocean near Wrangell, Alaska.

Table 2.1-1
Key Characteristics of Watersheds and Creeks in Project Area

Watershed	Area [km^2]	Median Elevation [m]	Stream length [km]	Tributary of	Proposed Project Components located within catchment
Hickman Creek	87	1620	16	Schaft Creek	Tailings impoundment and mill option B
Schaft Creek	688	1480	52	Mess Creek	All components in Hickman Creek, open pit, tailings impoundment and mill option C
Mess Creek	2306	1420	114	Stikine River	All components in Schaft Creek, camp site, plant site, mill option A

Based on the existing mine plan, proposed sites of the main Project components are dispersed over a number of sub-watersheds of Mess Creek (Figure 2.1-2);

- The proposed pit site is located in the Schaft Creek watershed;
- The proposed camp, airstrip and mill option A are located in the Mess Creek watershed;
- Tailings impoundment option A is located in the Skeeter Lake Valley;
- Tailings and mill option B is located in the Hickman Creek watershed; and
- Tailings and mill option C is located along an unnamed eastern tributary of Schaft Creek.

The Mess Creek, Schaft Creek, and Hickman Creek watersheds lie within the Tahltan Highland of the Boundary Ranges. The watersheds contain mountain peaks with elevations in excess of 2500 m. Rivers typically flow in deeply entrenched north-south valleys. The creeks can be characterized as follows:

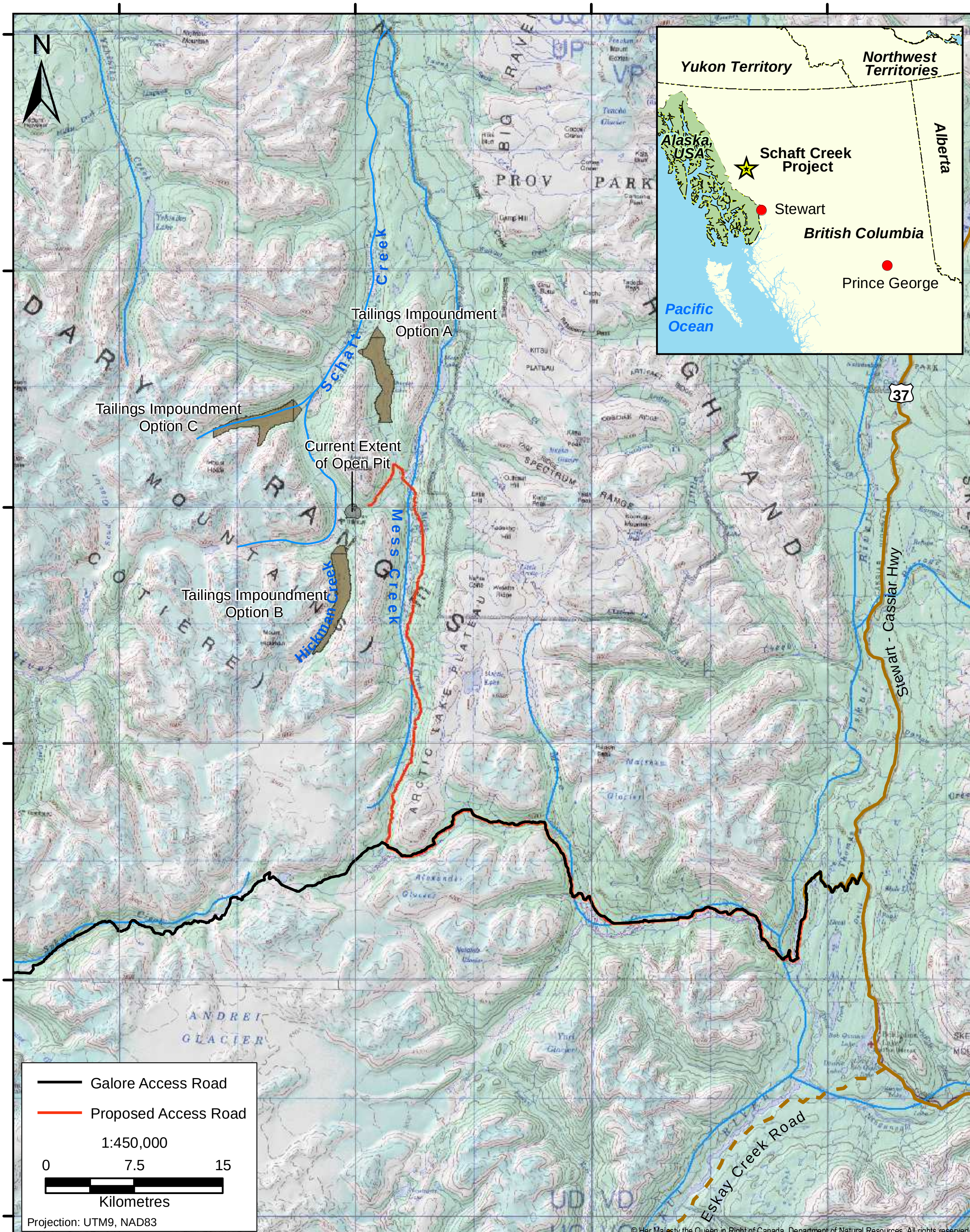

FIGURE 2.1-1

Regional Map Showing Main Creeks in the Project Area

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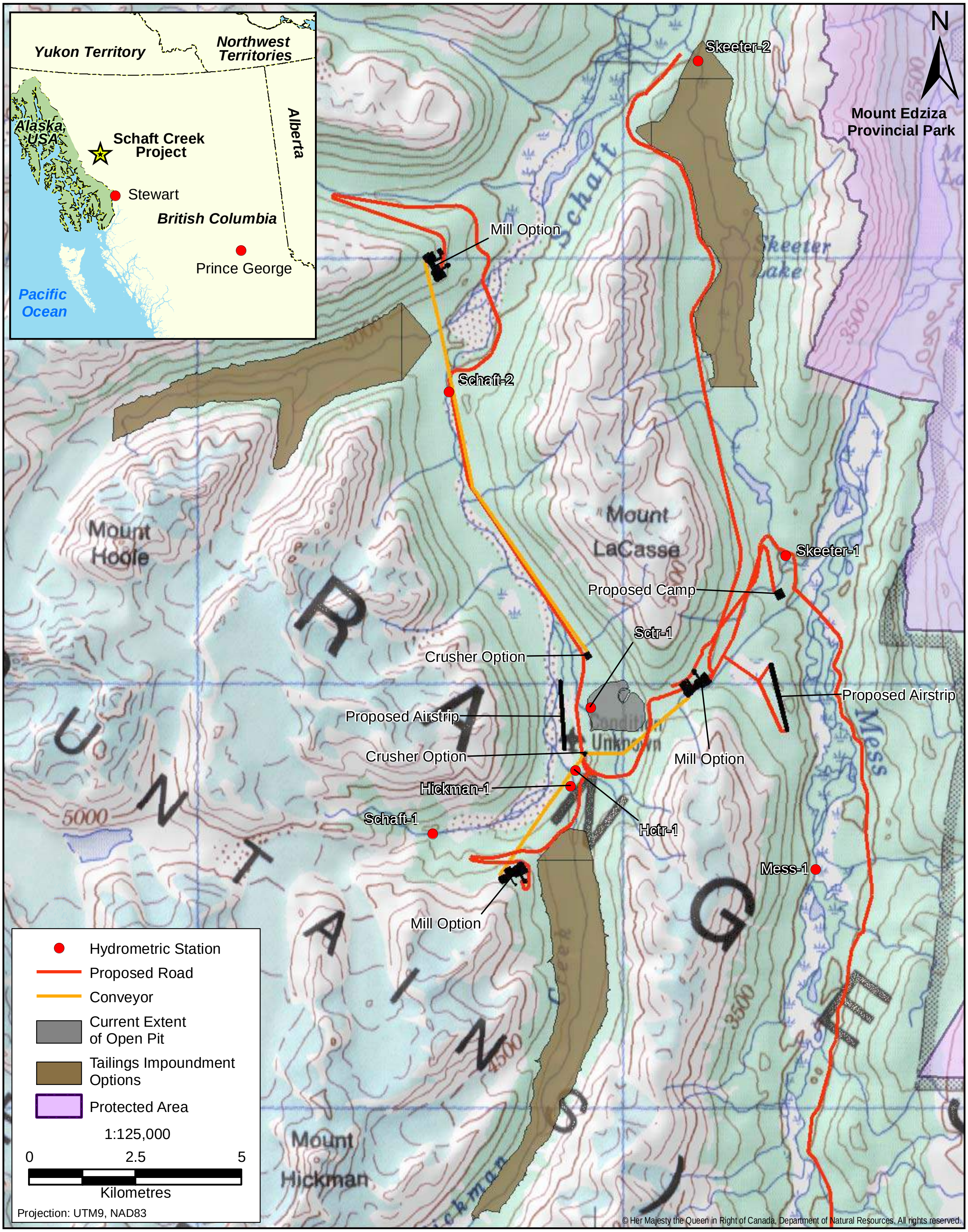

FIGURE 2.1-2

Schaft Creek Surface Hydrology Baseline Study Area

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- Hickman Creek drains the eastern slopes of Hickman Mountain in the southern portion of the Mess Creek watershed. The creek is contained in an approximately 20 km long, narrow valley, which flows into Schaft Creek. The sub-watershed contains two stations: Hc-1 near its mouth and Hctr-1 in one of its tributaries (Figure 2.1-2). Hc-1 monitors flow from one of the possible tailings impoundment locations, Hctr-1 is considered a reference station for Sctr-1 (see below).
- Schaft Creek originates at a glacier in the southwestern portion of the Mess Creek watershed. It starts as a creek confined in narrow valley (Plate 2.1-1) but transforms into a braided river with associated wetlands after approximately 2 km into which both Hickman Creek and the northern outflow from Skeeter Lake drain. The main channel of Schaft Creek extends for approximately 50 km and flows into Mess Creek. The Schaft Creek sub-watershed contains three stations: Sc-1 in the 2-km long valley directly below the headwater glaciers, Sc-2 at a bedrock outcrop that constricts the creek downstream of Hickman Creek and the proposed open pit (Plate 2.1-2), Sk-1 near the mouth of the northern outflow from Skeeter Lake, and Sctr-1 in a small tributary of the creek that drains the area of the proposed open pit.
- Mess Creek flows north from its divide with More Creek through a moderately deep valley (Plate 2.1-3), parallel to Hickman Creek. Shortly after its origin, it forms a meandering braided creek in a broad valley with numerous wetland complexes. After 35 km it is joined by the southern outflow of Skeeter Lake (Plate 2.1-4). Downstream of Skeeter Lake, the creek flows into Mess Lake, after which it continues meandering through a broad valley. Below Mess Lake, Mess Creek is joined by Schaft Creek. The total length of the main stem of Mess Creek is approximately 115 km2. It flows into the Stikine River at near the village of Telegraph Creek. The Mess Creek watershed contains two baseline hydrometric stations: Sk-1, monitoring the flow coming from the southern outlet of Skeeter Lake and Mess-1, which monitors the flow from the upper Mess Creek watershed.

The Project area lies in a transition zone between the very 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 is strongly influenced by orographic effects caused by mountainous topography. Coulson and Obedkoff (1998) identified 17 hydrological zones for the province. The Project area lies within two of the hydrological zones, 9A (Northern Coastal Mountains) and 8 (Skeena-Nass Basin). The majority of the Project area lies within zone 9A (Northern Coastal Mountains), while the northern portion of Mess Creek lies in zone 8 (Skeena-Nass Basin). Coulson and Obedkoff (1998) describe the zones as follows:

- Zone 8: "The Skeena-Nass Basin is the northern most of three transition zones between the Coast Mountains and Interior Plateau. It extends along the lee side of the Coast range from the Stikine in the north, to Morice Lake in the south. The eastern boundary is defined by the Coast low flow boundary. The western boundary stays to the east of the Coast Mountains spine, keeping most of the glaciers in the Coastal Mountains Zone. Precipitation is higher in the south due to the lower altitude of the Coast Mountains in that area, and a drier zone in the north as the Boundary Range intercepts much of the moisture."

Plate 2.1-1. Schaft Creek downstream of Sc-2, view towards the north.

Plate 2.1-2. Schaft Creek at Schaft Creek 2 (Sc-2) station.

Plate 2.1-3. Mess Creek with view towards the north and Mount LaCasse.

Plate 2.1-4. View of Skeeter Lake.

- Zone 9: "The Coastal Mountains Zone extends for the entire length of the province, from the Yukon border to the Lower Mainland. The northern Sub-Zone 9A (Northern Coastal Mountains) is characterized by extremely rugged mountains with extensive permanent snowfields and glaciers. […] Precipitation is high along the entire coast with the moist maritime air forced to rise over the range as it heads west. The coast is broken by many fjords and channels formed during glacial periods. The high elevations of the mountains at the southern and northern ends of the range still contain many glaciers today. Although most of the precipitation falls as rain at the lower altitudes, the presence of many large icefields and snowpacks at higher elevations has an impact on hydrographs during spring freshets. […] Much of the range remains unfractured, keeping groundwater to a minimum, except in valley bottoms where previous glacial periods deposited large amounts of sediment."

Obedkoff (2001) further analyzed the hydrology of British Columbia to produce hydrologic sub-zones. The majority of the Project area, including all mine components, falls within subzone *s*. The northern portion of Mess Creek lies in subzone *r* (Figure 2.3-1).

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 to low flows, with flow rates decreasing into summer as the remaining snow melts. 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 remain below the magnitude of the freshet flows. During periods between rainstorms groundwater flow supports baseflow, which declines towards low winter flows as more and more precipitation falls in the form of snow.

2.2 Regional Hydrological Data

On-site observed baseline data will provide an indication of the current hydrologic regime of the Project. However, in order to provide reasonable estimates of the hydrologic conditions that can be expected any given year and the range of variability that might be experienced a data set that extends longer than a few years is required. Regional data sources such as the WSC for hydrometric data and Environment Canada (EC) for meteorological data can be used to produce estimates at locations within the Project area. A review of the existing regional data was performed in 2006 and a summary of the available data is provided in this chapter. Data found during this review will be used at a later date, although prior to the environmental impact assessment, to further characterize the baseline hydrological conditions of the Project area.

2.2.1 Regional Hydrometric Stations

Table 2.2-1 lists the WSC hydrometric stations close to the study area (*i.e.*, lying within subzones *s* and *r*; Figure 2.2-1). Although there are a number of stations in the two hydrologic subzones, there are only two (Forrest Kerr and More Creek) within 100 km of the Schaft Creek Project. In addition, the majority of the regional stations are not active and have historical data only. This fact stresses the need of current on-site observed data to qualify any estimates made using the regional data sets.

Table 2.2-1
WSC Hydrometric Stations in Hydrological Zones 8 and 9A and Sub-Zones *s* and *r*

Hydrologic Zone	Hydrologic Subzone	Station Name	Station ID	Drainage Area [km^2]	Median Elevation [m]	Average annual Runoff [m^3/s]	Average Annual Runoff [mm]
9A	s	Bear Creek	08DC006	289	1290	25.3	2766
9A	s	Forrest Kerr	08CG006	312	1360	28.4	2876
9A	s	Iskut-Johnson	08CG001	9350	1260	454	1531
9A	s	Iskut-Snippaker	08CG004	7230	1310	289	1261
9A	s	More Creek	08CG005	844	1360	49.1	1836
9A	s	Stikine at Butterfly	08CF001	36,000	1370	653	572
9A	s	Unuk	08DD001	1480	1180	103	2204
8	s	Surprise Creek	08DA005	220	1280	15.2	2182
8	r	Stikine at Telegraph Creek	08CE001	29,300	1380	410	441

2.2.2 Regional Climate Stations

There are few regional climate stations located near the Project area (Figure 2.2-2). Mean annual precipitation values based on climate normal data (1971-2000) for the EC stations located close to the Schaft Creek are presented in Table 2.2-2. Although the regional stations surround the Project area, which will provide a good indication of the regional longitudinal gradient, all the stations are at lower elevations than the Project area. On-site observed climate data will be essential to allow extrapolation from regional data to the Project area.

Rescan (2007) also collected meteorological data at the Schaft Creek Project site in 2006. The *Schaft Creek Meteorology and Air Quality Baseline Report 2006* (Rescan, 2007) presents this data in depth. Table 2.2-3 summarizes the monthly precipitation data for the available period of record from 2006 baseline meteorology monitoring program. The observed annual precipitation from the Schaft Saddle station is substantially higher than most of the regional climate normals. This is due largely due to the higher elevation of the Project area compared to the regional climate station elevations.

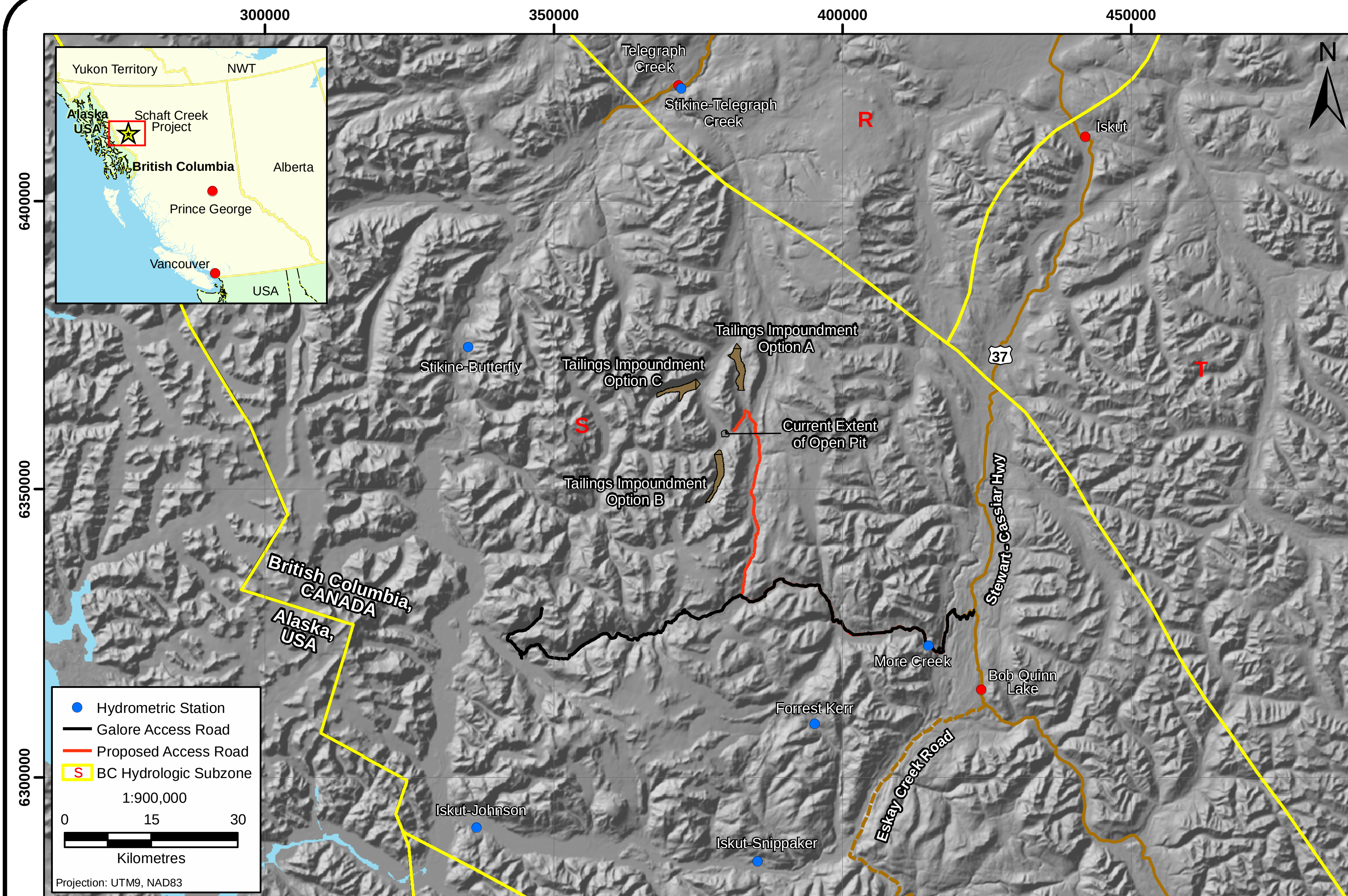

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FIGURE 2.2-1

WSC Hydrometric Stations and BC Hydrologic Subzones near the Project Area

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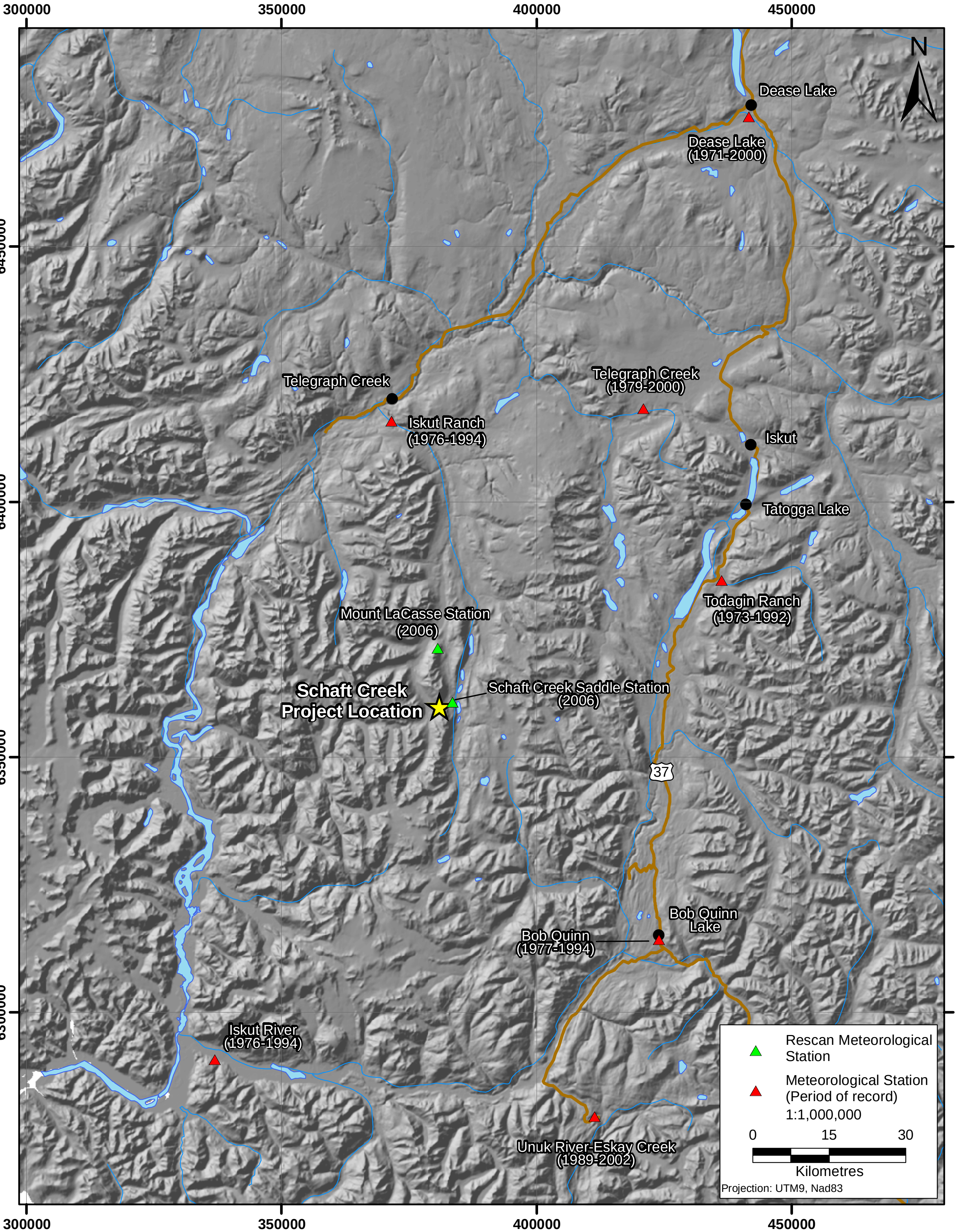

FIGURE 2.2-2

Regional Climate Stations near the Schaft Creek Project

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Table 2.2-2
Environment Canada Meteorological Stations near the Schaft Creek Project area

Station	Period of Record	Location	Approximate distance to project [km]	Elevation [m]	Mean annual precipitation [mm]
Iskut Ranch	1976-1994	57° 52’ N; 131° 10’ W	57	854	435
Todagin Ranch	1973-1992	57° 36’ N; 130 ° 04’ W	62	899	419
Telegraph Creek	1979-2000	57° 54’ N; 130° 20’ W	63	250	369
Bob Quinn	1977-1994	56° 58’ N; 130° 15’ W	65	612	642
Iskut River	1976-1994	56°43' N; 131°40' W	82	884	431
Unuk River-Eskay Creek	1989-2002	56°39'N; 130° 26' W	87	887	2254
Dease Lake	1971-2000	58° 25’ N; 130° 00’ W	130	807	426

Table 2.2-3
Schaft Creek Project Recorded On-site Precipitation Data [mm]

Station	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Year
Mount LaCasse Meteorological Station	56° 28’ N; 130° 59’ W	n/a	n/a	n/a	n/a	n/a	n/a	n/a	28.2	99	54.6	78.5	77.6	n/a
Schaft Creek Saddle Meteorological Station	56° 23’ N; 130° 56’ W	120.3	56.8	74.9	89.9	62.9	57.5	41.4	75.3	181.9	65.4	148.6	63.7	1,039

n/a - data not available.

3. FIELD DATA COLLECTION

3. Field Data Collection

This section describes the methodology and provides results from the 2006 baseline surface hydrology monitoring program in the Schaft Creek Project area.

3.1 Methods

In 2006, Rescan installed automated hydrometric stations at eight locations within the Schaft Creek Project study area (Table 3.1-1 and Figure 2.1-1). The stations can be classified into two groups, those on larger watersheds (> 40 km^2) with higher flow rates (Hc-1, Sc-1, Sc-2 and Mess-1) and those on smaller catchments (< 40 km^2) with lower discharges (Hctr-1, Scrt-1, Sk-1 and Sk-2). These groups will be used throughout the report to describe and compare the flow characteristics.

Each hydrometric station consisted of a staff gauge, INW Model PS9800 pressure transducer and Terrascience Elf2 data logger (Plate 3.1-1). The staff gauge is a semi-permanent installation that provides a visual indication of water depths in the stream. The combination of pressure transducer and data logger automatically collected water depths at a set frequency. The stations were programmed to record water levels every ten minutes.

Table 3.1-1
Schaft Creek Project Baseline Hydrometric Stations

Station	Drainage Area (km^2)	Median Elevation (m)	Glaciers and Ice Fields (%)	Monitoring Period	Notes
Hickman Creek Tributary 1 (Hctr-1)	4.5	1621	27	30-May-2006 to 23-Sep-2006	Acts as reference creek to Sctr-1; substantial sedimentation event buried station during freshet
Schaft Creek Tributary 1 (Sctr-1)	5.5	1062	0	30-May-2006 to 26-Oct-2006	Drains area of proposed main pit
Skeeter Lake 1 (Sk-1)	38.6	1223	0	29-May-2006 to 26-Oct-2006	Monitors southern outflow of Skeeter Lake valley; flows into Mess Creek
Skeeter Lake 2 (Sk-2)	16.8	1087	4	28-May-2006 to 26-Oct-2006	Monitors northern outflow of Skeeter Lake valley; flows into Schaft Creek
Hickman Creek 1 (Hc-1)	87.3	1619	31	30-May-2006 to 23-Jul-2006	Flows into Schaft Creek; monitors potential site of tailings impoundment; damaged during late-September runoff event
Schaft Creek 1 (Sc-1)	48.3	1867	61	30-May-2006 to 22-Jul-2006	Monitors potential site of tailings impoundment; station substantially damaged during freshet
Schaft Creek 2 (Sc-2)	216.0	1331	13	27-May-2006 to 17-Oct-2006	Downstream of Sc-1; Flow drains into Mess Creek
Mess Creek 1 (Mess-1)	212.7	1365	14	31-May-2006 to 26-Oct-2006	Main creek in Project area; Flow drains into Stikine River at Telegraph Creek

Plate 3.1-1. Sctr-1 hydromteric station showing staff gauge, data logger (in aluminium box) and pressure transducer (in aluminum conduit).

The monitoring stations were operated during the open-water months, when there was no ice on the streams. The pressure transducers were removed in late October as rating curves developed during summer months are generally not applicable for ice covered conditions. In addition, ice can damage the monitoring equipment.

Water level time series recorded at each station were converted to discharge values using a rating equation (or stage-discharge curve), which relates the observed water levels to stream flows. Rating equations are typically empirical relationships between water depth and discharge generated using a series of manual flow measurements observed over a range of flow conditions.

Two methods were used to conduct manual flow measurements. Under low to medium flow conditions when it was safe for field personnel to enter the river, flow measurements were made using a hand-held Swoffer current meter. Standard provincial Ministry of Environment, Lands, and Parks methodologies for manual flow measurements were adopted (MELP, 1998); current velocities were measured at 60% of the depth of water, as the velocity at this depth is assumed to estimate the mean velocity through a vertical profile at any given location. 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 ±15%.

Under high flow conditions when entering the river was too dangerous, salt dilution was used as an alternative method for measuring stream flow. A known mass or concentration of common salt

(NaCl) is injected into the stream. The salt is rapidly diluted within the stream due to natural mixing processes and forms a well-mixed plume that travels downstream. At a downstream location a time-series of stream water conductivity is recorded and used to calculate the concentration of salt at that point. The observed concentrations at the measurement location along with the known amount of salt injected into the stream are used to produce an estimate of the stream flow. Based on the salt dilution measurements conducted by Rescan on other watercourses in the region, salt dilution gauging can provide estimates within 5% of the standard velocity-area method described above. All relevant regulatory agencies (BC Ministry of Environment, Department of Fisheries and Oceans, and Environment Canada) were notified of Rescan's intent to use salt dilution flow measurements prior to the use of the technique in the Project area.

Stage-discharge curves were calculated using standard methods outlined by the United States Geological Survey (USGS; Rantz *et al*., 1982). A least-squares regression procedure was used to produce a best-fit line through the logarithms of concurrently measured water level (stage) and stream flow (discharge). The regression coefficients were then back transformed to produce a power function of the form:

$$Q = C \cdot H^{b} \qquad (1)$$

where Q = discharge [m^3/s], *C and b* = regression coefficients, H = stage (water level) [m].

This procedure was followed for the majority of the hydrometric stations. Additional analysis was required for Hctr-1 and Mess-1 stations. For the case of the Hctr-1 station, there were multiple events that altered the shape of the channel such that a single rating curve could not be used over the entire monitoring period. The station was installed in late-May. In mid-June (June 12th) some in-stream work was conducted to improve water supply from the creek to the Schaft Creek Camp. The in-stream works altered the channel hydraulics at the hydrometric station. Prior to the in-stream work, one manual flow measurement had been conducted. This measurement was used to calibrate a HEC-RAS model of the channel at the station. The HEC-RAS model was subsequently used to provide a rating equation for the period before June 12th. Flow measurements conducted after June 12th were used to generate a rating curve as described by Equation (1). This equation was applied to data between the in-stream works and July 21st. A late-July peak flow event delivered a substantial amount of debris to the monitoring station that buried the station in approximately 0.35 m of sediment. Data after this date is not useable.

For the Mess-1 station, crossing the creek to use the standard velocity-area technique for manual flow measurement was unsafe over the majority of the monitoring period. Additionally, due to the hydraulics of Mess Creek (meandering braided stream with low flow turbulence) which reduces in-stream mixing, salt dilution gauging is not appropriate for this location. Consequently, only a single concurrently measured flow and stage was obtained. To increase this data set, the Rational Method was used to produce a second stage-discharge data set. The Rational Method was used to estimate the annual peak flow based on the assumption that the annual peak flow is equivalent to the bankfull discharge (Knighton, 1998). The bankfull stage was based on field data.

A simple hydraulic model (Manning's equation) was then used to calculate a range of discharges for given channel stages. The resulting stage-discharge curve was then calibrated to the two stage-discharge data points by adjusting the roughness coefficient and the stream gradient used in the Manning's equation until both parameters reached suitable values and the relationship was a reasonable fit to the data points.

3.2 Results and Discussion

3.2.1 Manual Flow Measurements and Stage-Discharge Curves

In total, 36 manual flow measurements were taken over 2006 (Table 3.2-1). Table A1-1 in Appendix A1 provides the results of these flow measurements. Measurements were conducted during monthly site visits and provided data from a wide range of flows, sufficient to obtain robust rating equations for the majority of the stations (Figure 3.2-1, r^2 in Table 3.2-1). Only stations Sc-1 and Mess-1 have few measurements. It is recommended to yield their stage-discharge relationships more robust by measuring more discharges for a range of stages. For the other stations manual flow measurements in 2007 will also supplement the existing data and may change the stage-discharge relationships, albeit to a limited degree.

Table 3.2-1
Basic Statistics Stage-Discharge Relationships

Station	Number of Flow Measurements (number used in calculation)	Calculation method	Equation	r^2
Hickman Creek Tributary 1 (Hctr-1)	5 (5)	HEC-RAS	$Q = 0.34\ H^{7.13}$	0.96
Hickman Creek 1 (Hc-1)	4 (4)	LSR	$Q = 4.04\ H^{4.33}$	0.89
Schaft Creek Tributary 1 (Sctr-1)	5 (5)	LSR	$Q = 3.73\ H^{4.08}$	0.98
Schaft Creek 1 (Sc-1)	[a] 4 (2)	LSR	$Q = 0.02\ H^{7.90}$	0.99
Schaft Creek 2 (Sc-2)	[b] 5 (4)	LSR	$Q = 16.20\ H^{1.35}$	0.99
Skeeter Lake 1 (Sk-1)	5 (5)	LSR	$Q = 10.41\ H^{2.51}$	0.99
Skeeter Lake 2 (Sk-2)	[b] 6 (5)	LSR	$Q = 17.01\ H^{5.94}$	0.98
Mess Creek 1 (Mess-1)	[b,c] 2 (1)	Manning	$Q = 16.93\ H^{2.30}$	0.99

LSR = Least squares regression, HEC-RAS = Hydrologic Engineering Centers River Analysis System flow model, Manning = Manning's equation; [a] no stage data available for two flow measurements due to damage to station; [b] some flow measurements conducted when water level had dropped below pressure transducer or station had been deactivated for winter; [c] data supplemented by one value estimated using the Rational Method.

3.2.2 Hydrographs

Using the stage-discharge relationships summarized above, observed stage data was converted into continuous flow records at each station. Appendix 2 provides summary tables of the average daily flow for all stations. Figures 3.2-2 and 3.2-3 present hydrographs for each station along with precipitation recorded at the Schaft Saddle meteorological station. Table 3.2-2

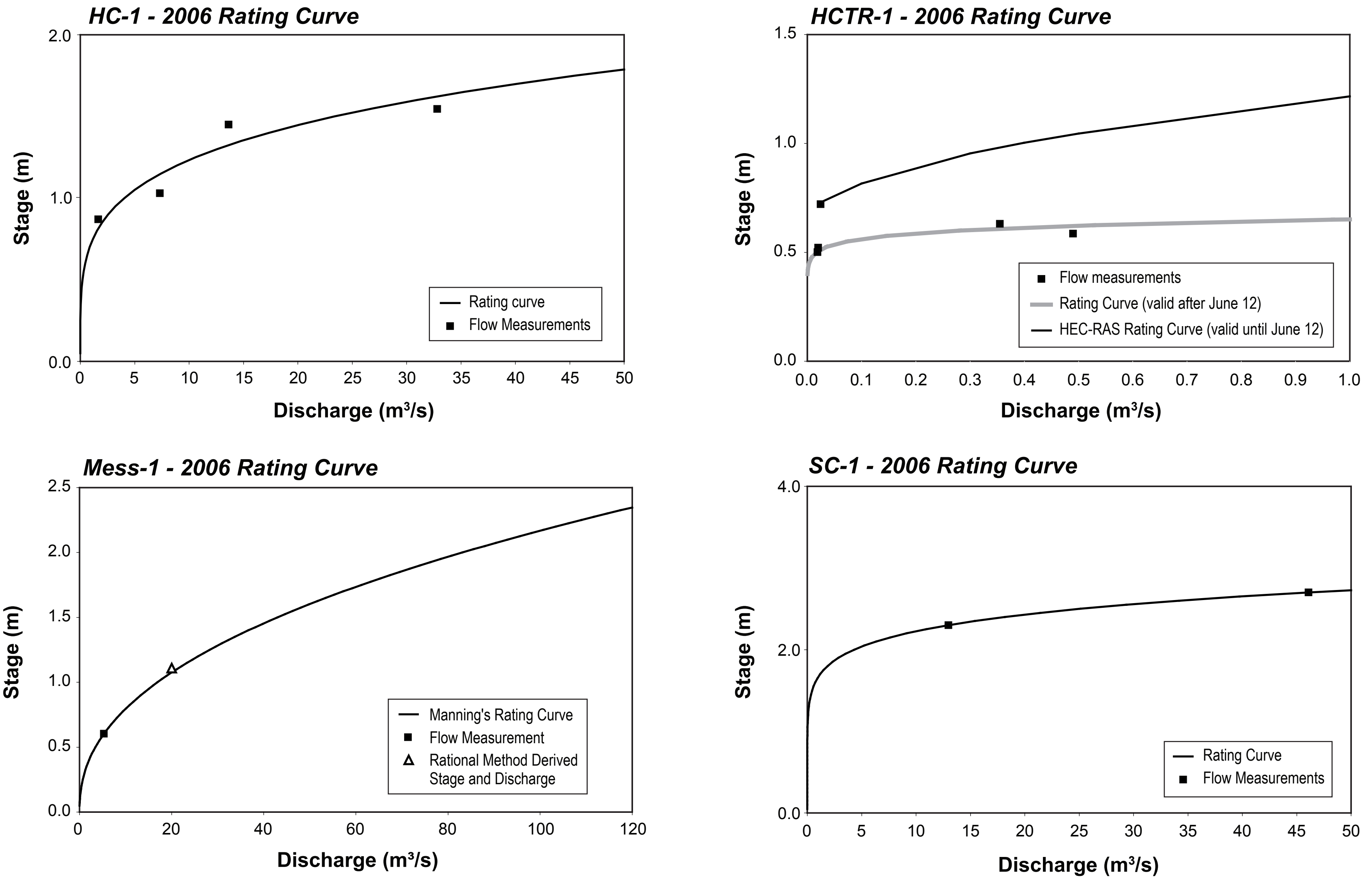

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FIGURE 3.2-1a

Stage - Discharge Curves

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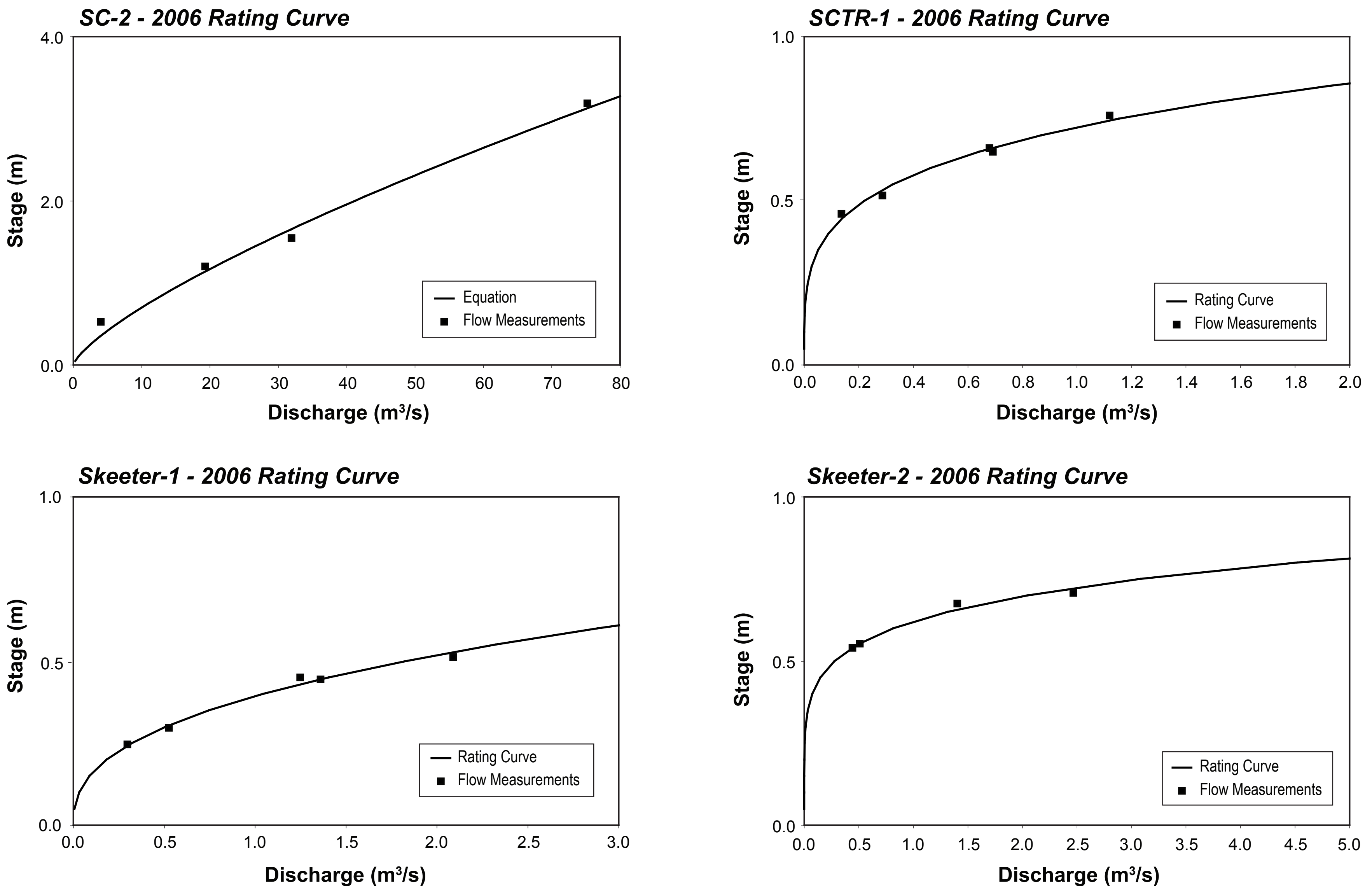

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FIGURE 3.2-1b

Stage - Discharge Curves

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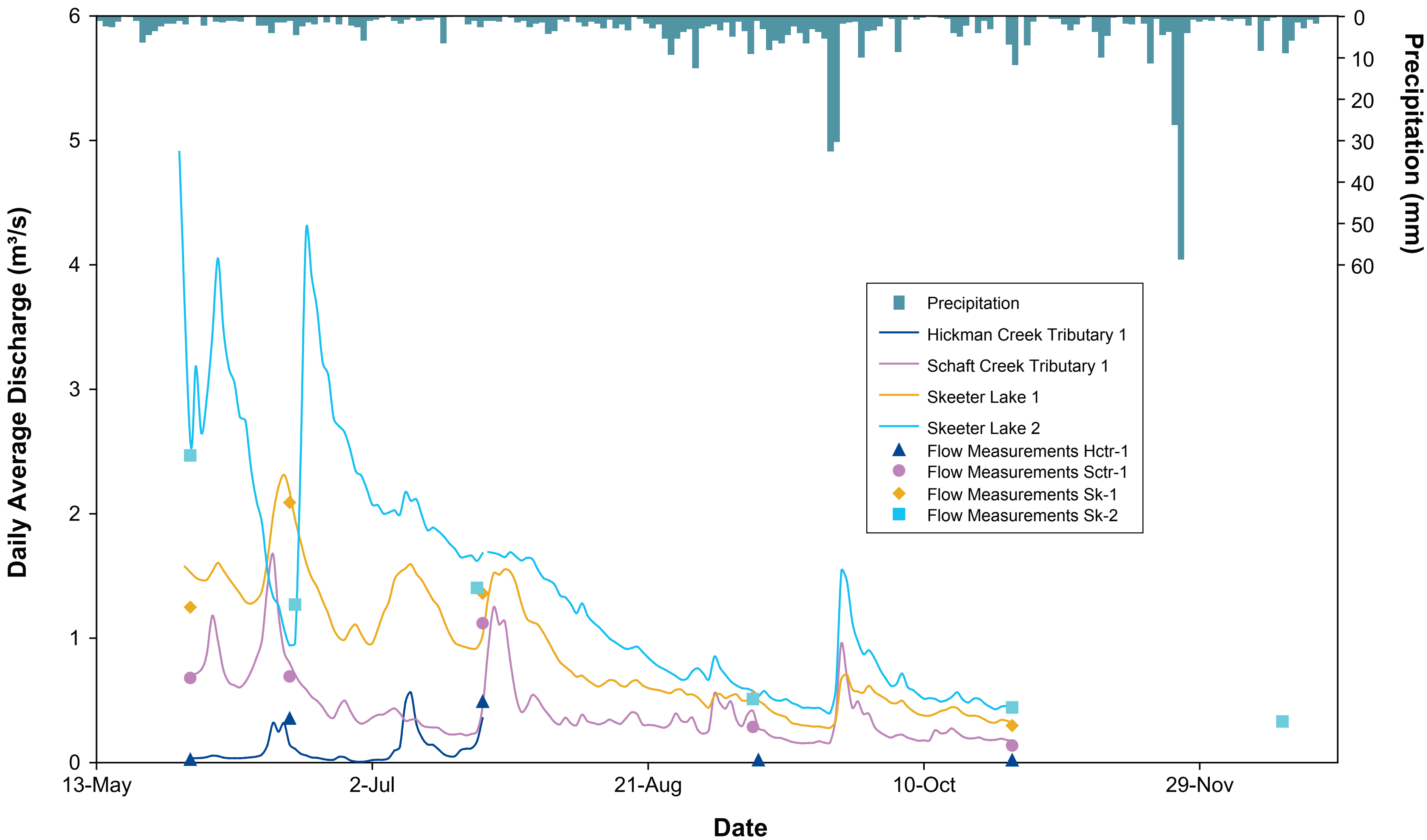

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FIGURE 3.2-2

2006 Hydrographs - Small Creeks

RTEC Rescan

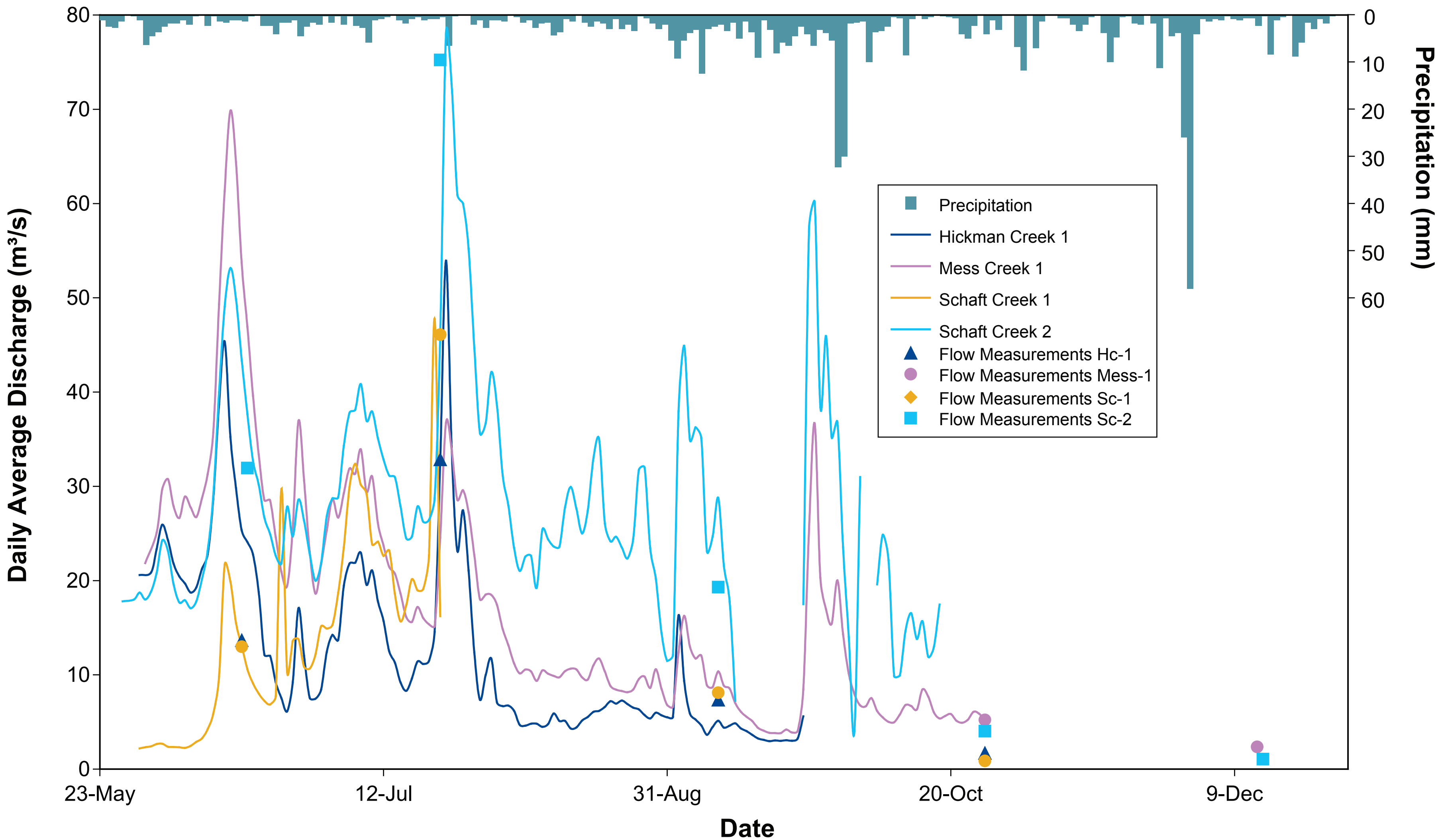

FIGURE 3.2-3

2006 Hydrographs - Large Creeks

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provides summary statistics over the monitoring period May to October 2006 or the period of record (see Table 3.1-1 for the period of record). The 7-day Low Flow statistic is the lowest seven day running average over the period of record.

The Sc-1, Hc-1, and Hctr-1 hydrometric stations have incomplete data sets due to damage or channel geometry changes at the station. Sc-1 was damaged during the freshet, conditions were too dangerous after this to repair or re-install the station. The station will be re-installed in 2007 with a more robust anchoring structure at the same location or at an alternate location that would provide greater natural protection of the monitoring equipment. Hc-1 was damaged during a later September runoff event. This station was anchored to a tree using lumber supports. The station will be re-installed in 2007 with a more robust anchoring structure of angle iron and threaded rod bolted directly into the rock face near the location of the original station. Hctr-1 was buried by a substantial sedimentation event in mid-July. This station will be re-installed in 2007 at the same location but at the elevation of the current channel bed or will be re-located to another suitable location nearby.

Table 3.2-2
Summary Statistics for 2006 Monitoring Period

Group	Station	Drainage Area [km²]	Median elevation [m]	[1] Average Discharge [m³/s]	[1] 7-day Low Flow [m³/s]	[2] Maximum Instantaneous Discharge [m³/s]	Date of Maximum Instantaneous Discharge
Small catchments	Hctr-1	4.5	1620	0.1	0.02	2.9	13-June
	Sctr-1	5.5	1060	0.4	0.2	2.1	13-June
	Sk-1	38.6	1220	0.9	0.3	2.4	15-June
	Sk-2	16.8	1090	1.4	0.5	7.2	[3] 28-May
Large catchments	Hc-1	87.3	1620	12.5	2.7	70.8	22-July
	Sc-1	48.3	1870	14.3	2.3	103	24-June
	Sc-2	216	1570	26.8	12.4	86.5	22-July
	Mess-1	213	1370	17.3	6.2	74.1	14-June

[1] Calculated over the period of record, See Table 3.1-1; [2] Instantaneous discharge over the period of record (see Table 3.1-1) based on 10-minute incremental data; [3] Same date as station installation.

The highest flows were observed during the spring freshet, which begins in late-April or early-May extends to July, and mid-summer. In the larger creeks substantial flows were also observed in the fall. The 2006 monitoring period began after the onset of freshet, but prior to the freshet peak, which occurred in most creeks in early-June. Re-installation of stations will be attempted earlier in the open water season to capture a greater proportion of the freshet.

The magnitude of flow of the small catchments relative to each other remains constant throughout the monitoring period. During each month, the ranking of monthly average discharge from highest to lowest is Sk-2, Sk-1, Sctr-1, and Hctr-1. Hctr-1 had the lowest average discharge as well as the lowest 7-day low flow of the smaller gauged watersheds. Sk-2 exhibited the highest average discharge, the highest peak discharge and the highest 7-day low flow of the smaller gauged watersheds.

This pattern of consistent relative flow levels from month to month was not observed for the larger gauged watersheds, where ranking varied depending on time of the year and statistic considered. Sc-1 recorded the highest instantaneous peak discharge, but has the lowest 7-day low flow and a lower average discharge than Sc-2 and Mess-1. Additionally, the four larger creeks all peak in different months; Hc-1 peaks in May, Mess-1 in June, and Sc-1 and Sc-2 in July.

All creeks respond relatively quickly inputs such as rain or snowmelt. The Skeeter Lake outflows (Sk-1 and Sk-2) do exhibit somewhat different flow patterns than the other gauged watersheds. Sk-1 displays subdued peaks with extended bases consistent with the influence of lake storage. Sk-2 displayed a dramatic reduction in early June that was not observed at any other station followed a sharp, but delayed (in relation to the other creeks) peak. This may have been caused by a blockage and subsequent burst at the northern outlet of Skeeter Lake, possibly by ice.

3.2.3 Standardized Flow Data: Unit Yield and Monthly Runoff

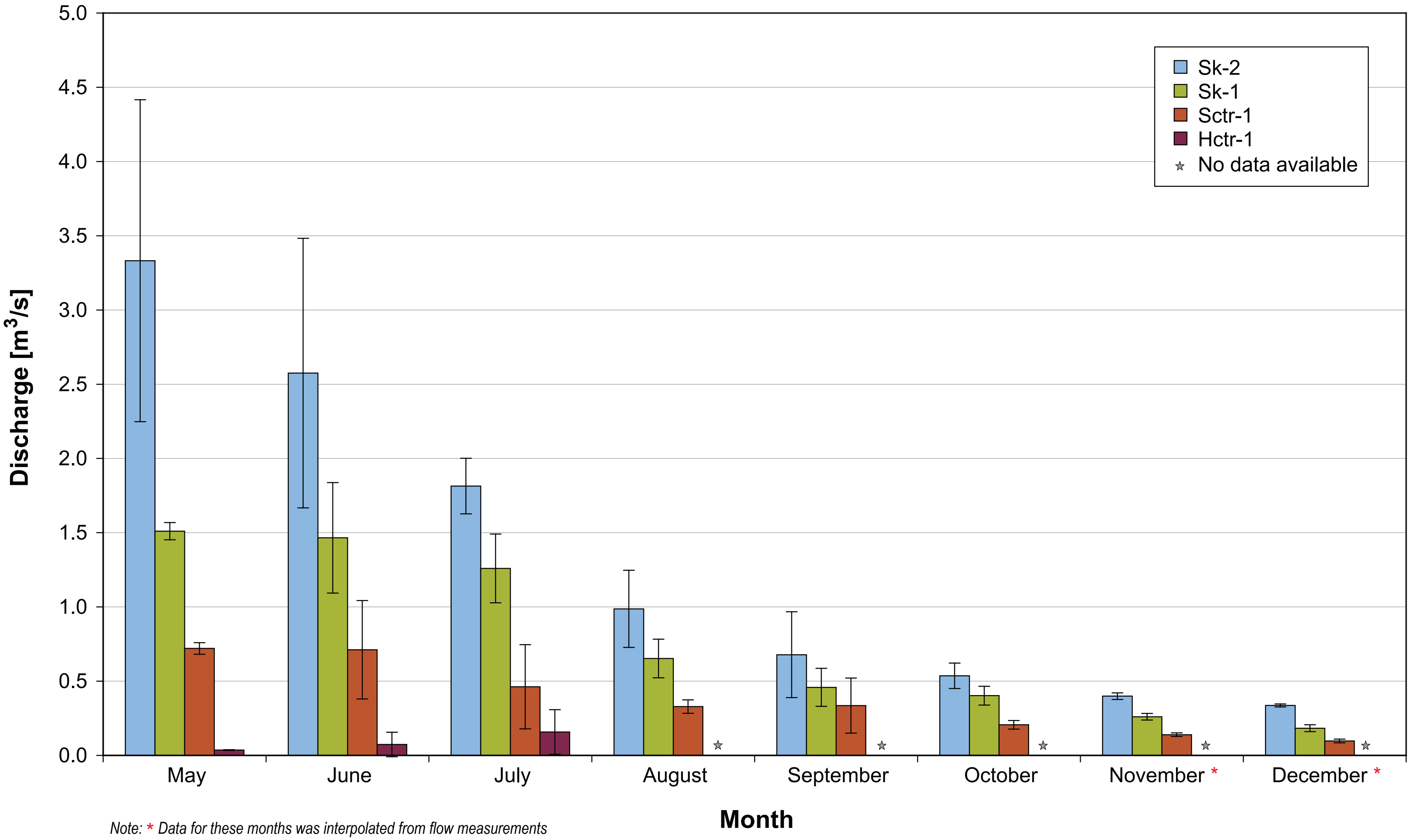
It is useful to standardize flow data to facilitate a comparison between the different hydrometric stations. This standardization can be done by dividing the flow by the drainage area to provide a unit yield [L/s/km^2] (Figure 3.2-6 and 3.2-7). Alternatively, monthly flow volumes can be divided by the catchment area to produce monthly runoff totals [mm] (Table 3.2-3), which can be directly compared to precipitation.

Table 3.2-3
Observed Monthly Runoff 2006 [mm]

Watershed Group	Station	May [a]	Jun	Jul	Aug	Sep	Oct [a]	Nov [b]	Dec [b]	Total
Small	Hctr-1	1	42	63[a]	n/a	n/a	n/a	n/a	n/a	n/a
	Sctr-1	23	335	225	160	100	84	66	47	927
	Sk-1	23	226	200	104	49	54	40	29	656
	Sk-2	30	173	122	71	28	32	27	23	456
Large	Hc-1	41	589	536	175	110[a]	84[b]	43	35	1451
	Sc-1	8	476	893[a]	n/a	n/a	n/a	n/a	n/a	n/a
	Sc-2	37	334	479	305	132[a]	95	33	15	1381
	Mess-1	9	413	304	124	71	66	45	29	987

[a] **Incomplete data for the month;** [b] **Monthly runoff interpolated from manual flow measurements; n/a = no data available.**

Runoff varies substantially between the different watersheds in the Project area. One example is between Hctr-1 and Sctr-1 stations, which have similar drainage areas (4.5 and 5.5 km2 respectively). However, June and July runoff from the Sctr-1 is considerably larger than for the Hctr-1. The low runoff from Hctr-1 may be due to its higher elevation which could result in lower snowmelt during the early part of the open water season. Alternatively, this may be an issue with the data. The reach of the creek where the hydrometric station was located experienced a number of disturbances that could have reduced the quality of the observed data.



Note: * *Data for these months was interpolated from flow measurements*
Error bars represent standard deviation

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FIGURE 3.2-4

Monthly Average Discharge - Small Creeks

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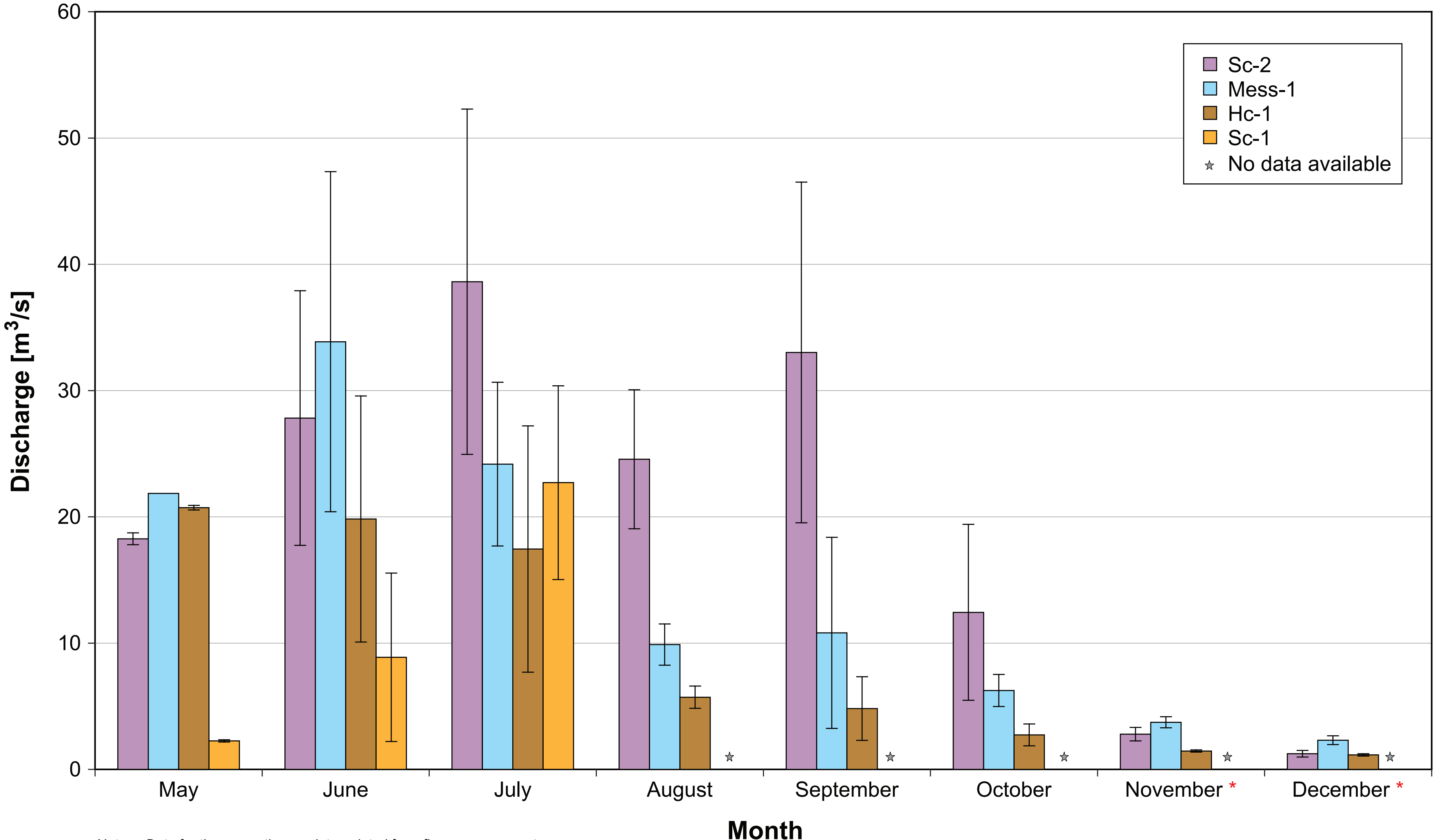

*Note: * Data for these months was interpolated from flow measurements*
Error bars represent standard deviation

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FIGURE 3.2-5

Monthly Average Discharge - Large Creeks

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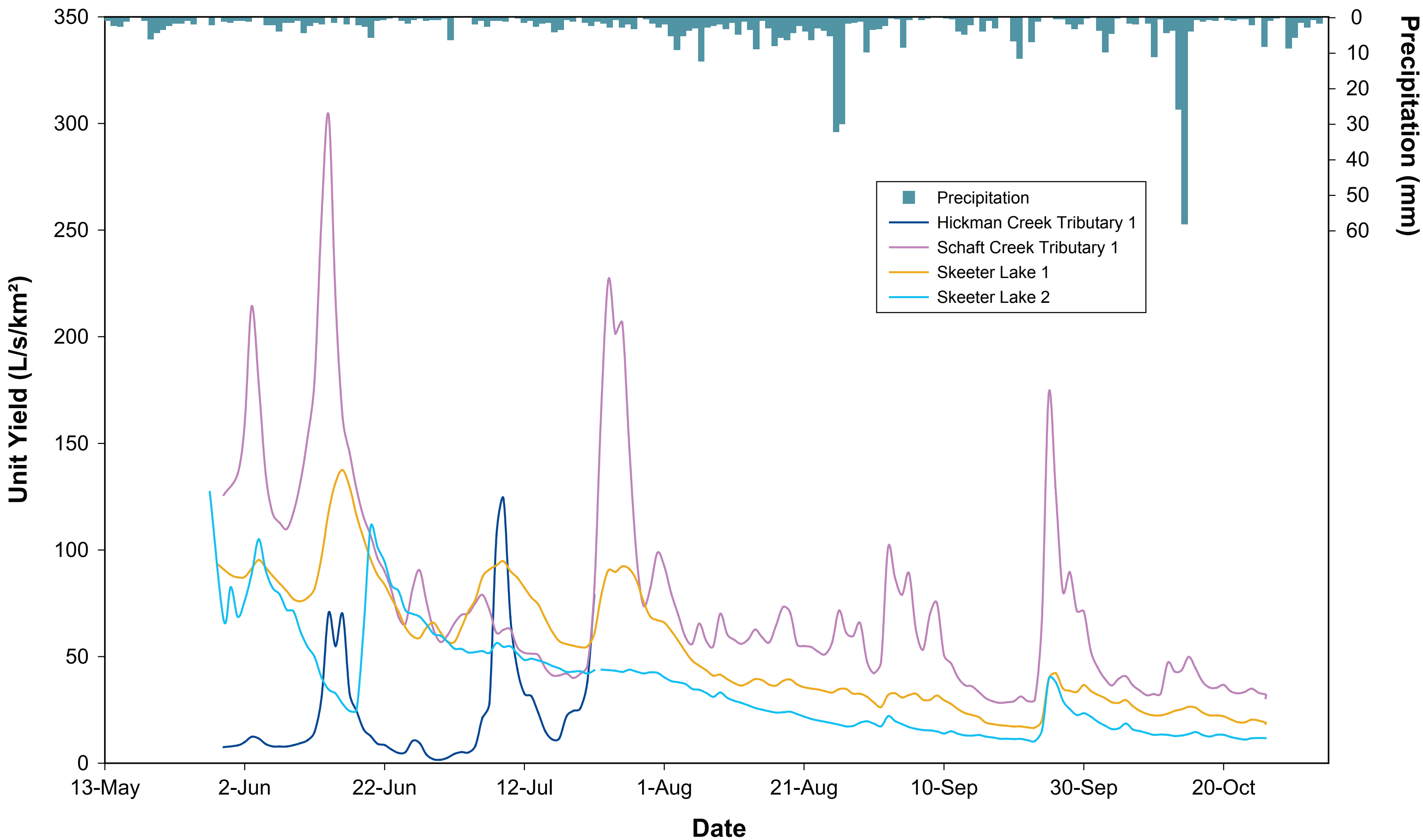

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FIGURE 3.2-6

2006 Unit Yield - Small Creeks

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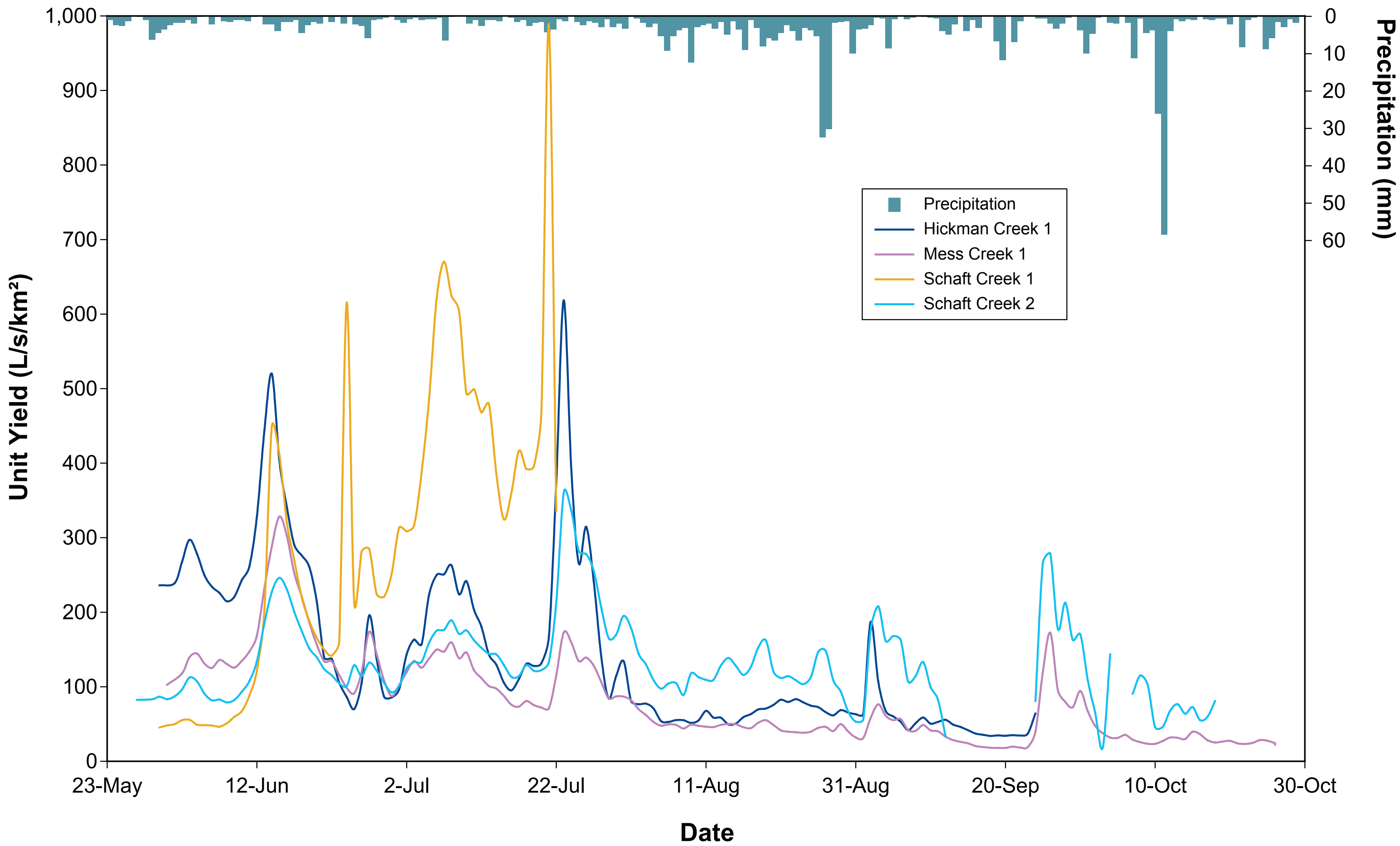

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2006 Unit Yields - Large Creeks

FIGURE 3.2-7

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For the larger watersheds, Mess-1 produced considerable less runoff than the other gauged watersheds. Although all four large creeks share a similar pattern in unit yield (Figure 3.2-7), the total runoff during the open water season is considerably larger for Schaft and Hickman Creek than for Mess Creek (Table 3.2-3). Melting of glaciers and ice fields may contribute to the higher runoff from Schaft Creek and Hickman Creek. This is considered further in the following chapter.

3.2.4 Standardized Flow Data: Annual Runoff

The previous chapter presented runoff data over the 2006 monitoring period. Total annual runoff can be extrapolated from the monitoring period using the seasonal distribution of runoff observed from regional gauged watersheds (see Chapter 3.2.5). Historical data from the former WSC hydrometric station on More Creek, which neighbours Mess Creek to the south, shows that on average 82% of the annual runoff will occur during the period from June through October. Based on historical data from another former WSC station on Forrest Kerr Creek, which is considered to be hydrologically similar to the Project area watersheds, 92% of the annual runoff occurs from June through October. It can be assumed that monthly flow distribution of the watersheds in the Project area is similar to the average of the More Creek and Forrest Kerr Creek distributions. Under this assumption annual runoff in the Project area (Table 3.2-4) can be obtained by:

$$\textit{Annual Estimated Runoff} = \Sigma\ (\textit{Observed Runoff})\ /\ P_{\text{total}} \qquad (2)$$

where *Annual Estimated Runoff* = estimated annual runoff [mm], *Observed Runoff* = observed runoff during open flow months [mm], and P_{total} = the percentage of annual runoff that occurs over the months of measurement based on the regional data [%].

Table 3.2-4
Annual Estimated Runoff 2006

Watershed Group	Station	Median Elevation [m]	Glacier & Ice Field Cover	Runoff May to Dec [mm]	Annual Estimated Runoff [mm]
Small catchments	Hctr-1	1620	27%	n/a	252
	Sctr-1	1060	0%	927	1066
	Sk-1	1220	0%	656	754
	Sk-2	1090	4%	456	524
Large catchments	Hc-1	1620	31%	1451	1668
	Sc-1	1870	61%	n/a	3240
	Sc-2	1330	13%	1381	1587
	Mess-1	1370	14%	987	1134

Total annual runoff from the larger watersheds is greater than the smaller watersheds. This may be attributed to the higher elevation and greater glacial coverage in these catchments. The mountainous topography of the Project area has been found to produce precipitation gradients of up to a 7% gain in precipitation per 100 m increase in elevation (Rescan, 2006). The high glacial coverage of the watersheds would augment the rainfall and snowmelt runoff with glacial melt water.

The data in Table 3.2-4 can be used to test the relationship between various watershed and annual runoff. Regression analyses were performed between estimated annual runoff for each gauged watershed and watershed percent glacial coverage, median elevation, and longitude. For all regression analyses a significance level α of 0.05 (*i.e.*, a relationship is significant when $p < 0.05$) was employed. The only analysis to provide a statistically significant result was the following relationship (Figure 3.3-1):

$$\textit{Annual Runoff} = 34.6\, P_{ice} + 630 \quad (r^2 = 0.59,\ p = 0.026) \qquad (3)$$

where *Annual Runoff* = annual estimated runoff derived from Equation (2) [mm] and P_{ice} = the percentage ice and glacier coverage [%]. It must be noted that the analysis also included data from other nearby watersheds monitored by Rescan in 2006 that were not part of the Schaft Creek Project.

The relationships between annual runoff and median elevation and longitude both had non-significant results ($r^2 = 0.39$; $p = 0.096$ and $r^2 = 0.4$; $p = 0.09$ respectively).

Due to the importance of headwater glaciers on the hydrologic regime of the Project area, the initiation of a glacial monitoring program will be investigated in 2007.

3.2.5 Standardized Flow Data: Seasonal Flow Distribution

The previous chapter used the seasonal distribution of runoff to estimate total annual runoff. This chapter describes the monthly flow distribution observed during the 2006 monitoring period and compares the data to regional data sources.

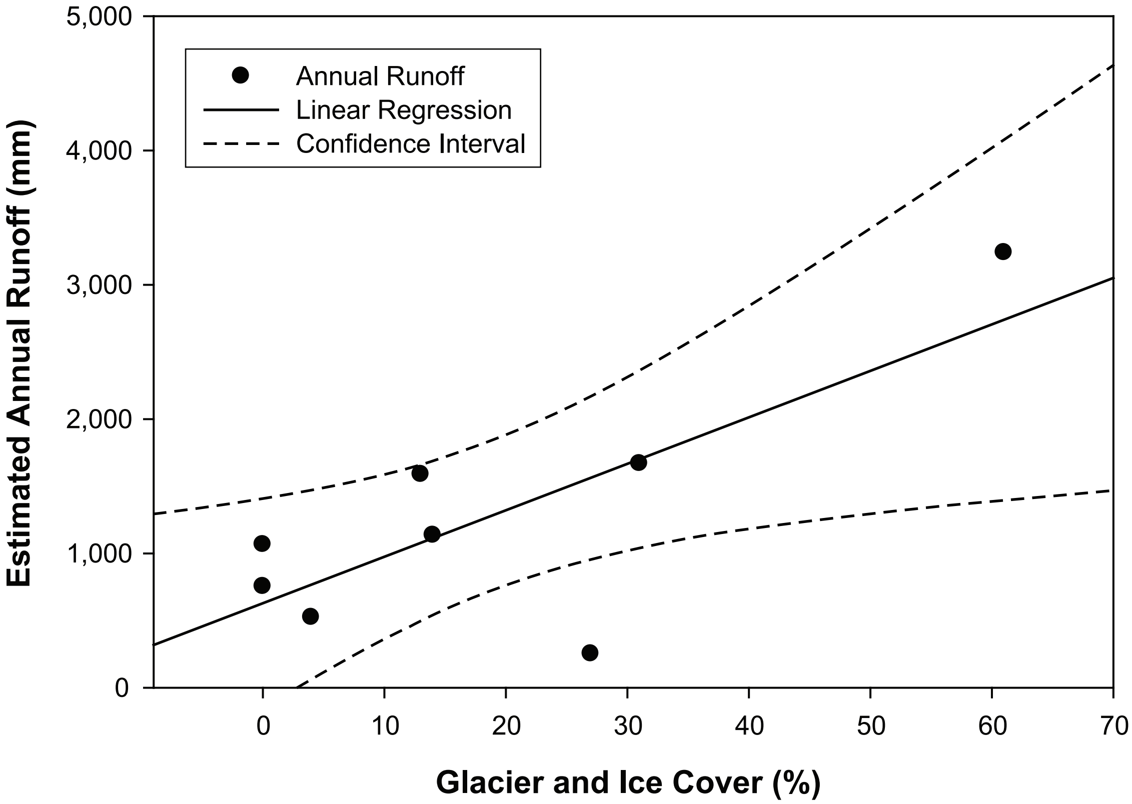

FIGURE 3.2-8

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Relationship between Glacier and Ice Cover and Estimated Annual Runoff

Table 3.2-5
Proportional Monthly Flow Distribution from Regional and On-site Hydrometric Stations

Station Name	Drainage Area [km^2]	Percentage of Annual Discharge											
		J	F	M	A	M	J	J	A	S	O	N	D
Bear Creek[a]	289	1	1	1	3	8	15	21	21	14	9	4	2
Forrest Kerr[a]	312	<1	<1	<1	<1	4	15	27	27	15	8	2	1
Iskut-Johnson[a]	9,350	1	1	1	3	9	21	23	17	11	8	4	2
Iskut-Snippaker[a]	7,230	1	1	1	2	9	21	23	17	11	8	4	2
More Creek[a]	844	1	1	1	2	8	19	24	19	12	8	3	2
Stikine at Butterfly[a]	36,000	2	1	1	2	12	25	21	13	10	8	3	2
Unuk[a]	1,480	2	2	1	3	9	17	20	18	13	9	4	2
Surprise Creek[a]	220	1	1	1	3	12	24	22	15	10	7	3	1
Stikine at Telegraph Creek[a]	29,300	2	1	1	2	13	29	20	11	9	7	3	2
Hctr-1[b]	4.5	1	1	1	2	7	17	25	23	14	8	3	2
Sctr-1[b]	5.5	<1	<1	<1	1	3	31	21	15	9	8	6	4
Sk-1[b]	38.6	<1	<1	<1	1	5	30	27	14	6	7	5	4
Sk-2[b]	16.8	1	1	1	2	6	33	23	14	5	6	5	4
Hc-1[b]	87.3	1	1	1	1	4	35	32	10	7	5	3	2
Sc-1[b]	48.3	1	1	1	2	6	15	28	23	14	8	3	2
Sc-2[b]	216.0	1	1	1	2	8	21	30	19	8	6	2	1
Mess-1[b]	212.7	1	1	1	1	5	36	27	11	6	6	4	3

[a] – historical average; [b] – estimated for 2006.

4. CONCLUSIONS AND RECOMMENDATIONS

4. Conclusions and Recommendations

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. Runoff varied between the gauged watersheds in the Project area with larger watersheds (> 40 km^2) generally exhibiting greater runoff than smaller watersheds (< 40 km^2). This is likely due to substantial areas of the larger watersheds covered by glaciers or permanent ice-fields.

The locations of stations provide good coverage of most of the area surrounding the future pit, plant and tailings impoundments. The proposed site of tailings impoundment option C was not monitored in 2006. A station should be installed on this watershed in the spring of 2007.

The Hc-1 and Sc-1 stations were damaged (Hc-1, Sc-1) and Hctr-1 experienced considerable channel geometry changes (Hctr-1) during high flow events in 2006. Hc-1 and Sc-1 should be re-installed with more robust anchoring structures or moved to a more protected location. Hctr-1 should be re-installed at the same location or moved to a different drainage. This station was originally meant to act as reference station to Sctr-1, which drains the area of the proposed open pit. However, due to the use of the creek as a water source for the Schaft Creek Camp, Hctr-1 may no longer be an appropriate reference creek.

Although the stage-discharge relationships for most stations are well-defined, those for Sc-1 and Mess-1 are based on relatively few manual flow measurements. Additional attention should be paid to these two stations in order to obtain more data to improve their rating curves.

The 2006 monitoring program was initiated prior to the freshet peak but was unable to capture the onset of freshet due to snow and ice conditions prohibiting installation of stations. Taking advantage of the existing hydrometric station infrastructure, remobilization of stations in the spring of 2007 will likely be able to occur earlier in the freshet.

Most of the large watersheds in the Project area have substantial glacial coverage which strongly influences the hydrology of the catchments. The variation in glacial coverage between catchments describes some of the spatial variation in runoff in the Project area. It is recommended to that a glacial monitoring program of the Project area be investigated. Based on an initial investigation the implementation of the program will be further considered.

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APPENDIX A1
SUMMARY OF MANUAL FLOW MEASUREMENTS 2006

Table A1-1
Summary of Flow Measurements, 2006

Station	Date	Stage [m]	Q [m^3/s]	Method
Hc-1	17-Jun-06	0.55	13.63	salt
	22-Jul-06	0.65	32.82	salt
	9-Sep-06	0.13	7.32	salt
	26-Oct-06	-0.030	1.66	Swoffer
Hctr-1	30-May-06	0.58	0.02	Swoffer
	17-Jun-06	0.49	0.36	salt
	22-Jul-06	0.445	0.49	salt
	10-Sep-06	0.38	0.02	salt
	26-Oct-06	0.36	0.02	salt
Mess-1	26-Oct-06	0.07	5.21	Swoffer
	13-Dec-06	-	2.36	Swoffer
Sc-1	17-Jun-06	1.3	12.99	salt
	22-Jul-06	1.7	46.09	salt
	9/Sep/06	-	8.10	salt
	26/Oct/06	-	0.87	Swoffer
Sc-2	18-Jun-06	0.87	31.94	salt
	22-Jul-06	2.51	75.23	salt
	9-Sep-06	0.524	19.30	salt
	26-Oct-06	-0.15	4.03	Swoffer
	14-Dec-06	-	1.06	Swoffer
Sctr-1	30-May-06	0.31	0.68	Swoffer
	17-Jun-06	0.299	0.69	salt
	22-Jul-06	0.41	1.12	salt
	9-Sep-06	0.166	0.29	salt
	26-Oct-06	0.11	0.14	Swoffer
Sk-1	30-May-06	0.19	1.25	Swoffer
	18-Jun-06	0.252	2.09	salt
	1-Jul-22	0.184	1.36	salt
	9-Sep-06	0.036	0.53	salt
	26-Oct-06	-0.014	0.30	Swoffer
Sk-2	30-May-06	0.307	2.47	Swoffer
	18-Jun-06	0.41	1.27	salt
	21-Jul-06	0.275	1.40	salt
	9-Sep-06	0.153	0.51	salt
	26-Oct-06	0.14	0.44	Swoffer
	14-Dec-06	-	0.33	Swoffer

salt = salt dilution method

Swoffer = measurements of flow velocity with a
Swoffer Model 2100 Current Velocity Meter

APPENDIX A2
SUMMARY OF MEAN DAILY DISCHARGES 2006

Table A2-1
Summary of Mean Daily Flow [m^3/s] at Hickman Creek 1 (Hc-1), 2006

Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]
26-May-06	a	8-Aug-06	4.49	21-Oct-06	-
27-May-06	-	9-Aug-06	4.78	22-Oct-06	-
28-May-06	-	10-Aug-06	5.90	23-Oct-06	-
29-May-06	-	11-Aug-06	5.11	24-Oct-06	-
30-May-06	20.6	12-Aug-06	5.11	25-Oct-06	-
31-May-06	20.9	13-Aug-06	4.31	26-Oct-06	c
1-Jun-06	23.3	14-Aug-06	4.42		
2-Jun-06	25.9	15-Aug-06	5.16		
3-Jun-06	24.3	16-Aug-06	5.53		
4-Jun-06	21.8	17-Aug-06	6.07		
5-Jun-06	20.4	18-Aug-06	6.18		
6-Jun-06	19.7	19-Aug-06	6.59		
7-Jun-06	18.7	20-Aug-06	7.20		
8-Jun-06	19.3	21-Aug-06	6.95		
9-Jun-06	21.2	22-Aug-06	7.27		
10-Jun-06	22.8	23-Aug-06	6.91		
11-Jun-06	28.7	24-Aug-06	6.52		
12-Jun-06	38.7	25-Aug-06	6.33		
13-Jun-06	45.4	26-Aug-06	5.74		
14-Jun-06	35.2	27-Aug-06	5.38		
15-Jun-06	29.8	28-Aug-06	5.98		
16-Jun-06	25.4	29-Aug-06	5.71		
17-Jun-06	24.1	30-Aug-06	5.51		
18-Jun-06	22.8	31-Aug-06	5.54		
19-Jun-06	18.7	1-Sep-06	16.3		
20-Jun-06	12.1	2-Sep-06	9.35		
21-Jun-06	12.0	3-Sep-06	5.90		
22-Jun-06	9.22	4-Sep-06	5.26		
23-Jun-06	7.53	5-Sep-06	4.63		
24-Jun-06	6.12	6-Sep-06	3.65		
25-Jun-06	9.18	7-Sep-06	4.44		
26-Jun-06	17.1	8-Sep-06	5.12		
27-Jun-06	12.0	9-Sep-06	4.41		
28-Jun-06	7.57	10-Sep-06	4.61		
29-Jun-06	7.47	11-Sep-06	4.85		
30-Jun-06	8.42	12-Sep-06	4.30		
1-Jul-06	12.5	13-Sep-06	4.03		
2-Jul-06	14.2	14-Sep-06	3.63		
3-Jul-06	13.7	15-Sep-06	3.25		
4-Jul-06	19.4	16-Sep-06	3.11		
5-Jul-06	21.8	17-Sep-06	2.97		
6-Jul-06	21.9	18-Sep-06	3.03		
7-Jul-06	22.9	19-Sep-06	2.99		
8-Jul-06	19.6	20-Sep-06	3.06		
9-Jul-06	21.1	21-Sep-06	3.01		
10-Jul-06	17.8	22-Sep-06	3.25		
11-Jul-06	15.7	23-Sep-06	5.59		
12-Jul-06	12.5	24-Sep-06	b		
13-Jul-06	11.3	25-Sep-06	-		
14-Jul-06	9.20	26-Sep-06	-		
15-Jul-06	8.31	27-Sep-06	-		
16-Jul-06	9.61	28-Sep-06	-		
17-Jul-06	11.4	29-Sep-06	-		
18-Jul-06	11.2	30-Sep-06	-		
19-Jul-06	11.5	1-Oct-06	-		
20-Jul-06	14.5	2-Oct-06	-		
21-Jul-06	32.7	3-Oct-06	-		
22-Jul-06	53.9	4-Oct-06	-		
23-Jul-06	34.2	5-Oct-06	-		
24-Jul-06	23.2	6-Oct-06	-		
25-Jul-06	27.4	7-Oct-06	-		
26-Jul-06	21.1	8-Oct-06	-		
27-Jul-06	12.3	9-Oct-06	-		
28-Jul-06	7.37	10-Oct-06	-		
29-Jul-06	10.0	11-Oct-06	-		
30-Jul-06	11.7	12-Oct-06	-		
31-Jul-06	7.08	13-Oct-06	-		
1-Aug-06	6.68	14-Oct-06	-		
2-Aug-06	6.74	15-Oct-06	-		
3-Aug-06	6.18	16-Oct-06	-		
4-Aug-06	4.70	17-Oct-06	-		
5-Aug-06	4.61	18-Oct-06	-		
6-Aug-06	4.81	19-Oct-06	-		
7-Aug-06	4.81	20-Oct-06	-		

a Station installed 26-May-2006

b Pressure transducer destroyed, probably at 24-Sep-2007

c Station decommissioned 26-Oct-2006

Table A2-2

Summary of Mean Daily Flow [m3/s] at Hickman Creek Tributary 1 (Hctr-1), 2006

Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]
25-May-06	a	6-Aug-06	-	17-Oct-06	-
26-May-06	-			18-Oct-06	-
27-May-06	-	7-Aug-06	-	19-Oct-06	-
28-May-06	-	8-Aug-06	-	20-Oct-06	-
29-May-06	-	9-Aug-06	-	21-Oct-06	-
30-May-06	0.034	10-Aug-06	-	22-Oct-06	-
31-May-06	0.038	11-Aug-06	-	23-Oct-06	-
1-Jun-06	0.045	12-Aug-06	-	24-Oct-06	-
2-Jun-06	0.056	13-Aug-06	-	25-Oct-06	-
3-Jun-06	0.052	14-Aug-06	-	26-Oct-06	-
4-Jun-06	0.041	15-Aug-06	-	27-Oct-06	d
5-Jun-06	0.036	16-Aug-06	-		
6-Jun-06	0.036	17-Aug-06	-		
7-Jun-06	0.035	18-Aug-06	-		
8-Jun-06	0.039	19-Aug-06	-		
9-Jun-06	0.043	20-Aug-06	-		
10-Jun-06	0.049	21-Aug-06	-		
11-Jun-06	0.067	22-Aug-06	-		
12-Jun-06	0.14	23-Aug-06	-		
13-Jun-06	0.32	24-Aug-06	-		
14-Jun-06	0.25	25-Aug-06	-		
15-Jun-06	0.32	26-Aug-06	-		
16-Jun-06	0.15	27-Aug-06	-		
17-Jun-06	0.11, b	28-Aug-06	-		
18-Jun-06	0.072	29-Aug-06	-		
19-Jun-06	0.058	30-Aug-06	-		
20-Jun-06	0.041	31-Aug-06	-		
21-Jun-06	0.039	1-Sep-06	-		
22-Jun-06	0.029	2-Sep-06	-		
23-Jun-06	0.022	3-Sep-06	-		
24-Jun-06	0.024	4-Sep-06	-		
25-Jun-06	0.047	5-Sep-06	-		
26-Jun-06	0.043	6-Sep-06	-		
27-Jun-06	0.018	7-Sep-06	-		
28-Jun-06	0.0084	8-Sep-06	-		
29-Jun-06	0.0073	9-Sep-06	-		
30-Jun-06	0.011	10-Sep-06	-		
1-Jul-06	0.020	11-Sep-06	-		
2-Jul-06	0.024	12-Sep-06	-		
3-Jul-06	0.023	13-Sep-06	-		
4-Jul-06	0.038	14-Sep-06	-		
5-Jul-06	0.097	15-Sep-06	-		
6-Jul-06	0.127	16-Sep-06	-		
7-Jul-06	0.49	17-Sep-06	-		
8-Jul-06	0.56	18-Sep-06	-		
9-Jul-06	0.31	19-Sep-06	-		
10-Jul-06	0.20	20-Sep-06	-		
11-Jul-06	0.15	21-Sep-06	-		
12-Jul-06	0.14	22-Sep-06	-		
13-Jul-06	0.11	23-Sep-06	-		
14-Jul-06	0.067	24-Sep-06	-		
15-Jul-06	0.051	25-Sep-06	-		
16-Jul-06	0.053	26-Sep-06	-		
17-Jul-06	0.099	27-Sep-06	-		
18-Jul-06	0.11	28-Sep-06	-		
19-Jul-06	0.12	29-Sep-06	-		
20-Jul-06	0.17	30-Sep-06	-		
21-Jul-06	0.36, c	1-Oct-06	-		
22-Jul-06	-	2-Oct-06	-		
23-Jul-06	-	3-Oct-06	-		
24-Jul-06	-	4-Oct-06	-		
25-Jul-06	-	5-Oct-06	-		
26-Jul-06	-	6-Oct-06	-		
27-Jul-06	-	7-Oct-06	-		
28-Jul-06	-	8-Oct-06	-		
29-Jul-06	-	9-Oct-06	-		
30-Jul-06	-	10-Oct-06	-		
31-Jul-06	-	11-Oct-06	-		
1-Aug-06	-	12-Oct-06	-		
2-Aug-06	-	13-Oct-06	-		
3-Aug-06	-	14-Oct-06	-		
4-Aug-06	-	15-Oct-06	-		
5-Aug-06	-	16-Oct-06	-		

a **Station installed 25-May-2006**

b **Man-made dam breached, this changed the rating curve**

c **Station covered in sediment and data not longer reliable**

d **Sation decommissioned 27-Oct-2006**

Table A2-3
Summary of Mean Daily Flow [m^3/s] at Mess Creek 1 (Mess-1), 2006

Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]
29-May-06	a	12-Aug-06	10.4	26-Oct-06	4.75, b
30-May-06	-	13-Aug-06	10.6		
31-May-06	21.9	14-Aug-06	10.6		
1-Jun-06	25.1	15-Aug-06	9.73		
2-Jun-06	29.7	16-Aug-06	9.50		
3-Jun-06	30.8	17-Aug-06	11.0		
4-Jun-06	27.9	18-Aug-06	11.7		
5-Jun-06	26.6	19-Aug-06	10.4		
6-Jun-06	28.9	20-Aug-06	8.83		
7-Jun-06	27.8	21-Aug-06	8.43		
8-Jun-06	26.7	22-Aug-06	8.29		
9-Jun-06	28.7	23-Aug-06	8.16		
10-Jun-06	31.3	24-Aug-06	8.45		
11-Jun-06	35.8	25-Aug-06	9.55		
12-Jun-06	49.3	26-Aug-06	9.82		
13-Jun-06	61.3	27-Aug-06	8.62		
14-Jun-06	69.8	28-Aug-06	10.6		
15-Jun-06	64.4	29-Aug-06	8.49		
16-Jun-06	53.7	30-Aug-06	6.80		
17-Jun-06	46.9	31-Aug-06	6.62		
18-Jun-06	39.6	1-Sep-06	12.4		
19-Jun-06	33.3	2-Sep-06	16.3		
20-Jun-06	28.6	3-Sep-06	13.0		
21-Jun-06	28.5	4-Sep-06	11.7		
22-Jun-06	24.6	5-Sep-06	12.0		
23-Jun-06	21.0	6-Sep-06	8.91		
24-Jun-06	19.4	7-Sep-06	8.69		
25-Jun-06	25.5	8-Sep-06	10.4		
26-Jun-06	36.9	9-Sep-06	8.85		
27-Jun-06	30.6	10-Sep-06	8.55		
28-Jun-06	23.1	11-Sep-06	7.01		
29-Jun-06	18.6	12-Sep-06	6.07		
30-Jun-06	21.7	13-Sep-06	5.54		
1-Jul-06	25.4	14-Sep-06	5.10		
2-Jul-06	28.6	15-Sep-06	4.37		
3-Jul-06	26.7	16-Sep-06	4.08		
4-Jul-06	29.3	17-Sep-06	3.85		
5-Jul-06	31.9	18-Sep-06	3.82		
6-Jul-06	31.3	19-Sep-06	3.83		
7-Jul-06	33.9	20-Sep-06	4.19		
8-Jul-06	29.4	21-Sep-06	3.89		
9-Jul-06	31.0	22-Sep-06	4.06		
10-Jul-06	26.1	23-Sep-06	8.45		
11-Jul-06	23.7	24-Sep-06	25.5		
12-Jul-06	21.5	25-Sep-06	36.7		
13-Jul-06	20.7	26-Sep-06	20.3		
14-Jul-06	18.6	27-Sep-06	16.9		
15-Jul-06	16.1	28-Sep-06	15.4		
16-Jul-06	15.6	29-Sep-06	20.0		
17-Jul-06	17.2	30-Sep-06	14.3		
18-Jul-06	16.0	1-Oct-06	10.1		
19-Jul-06	15.4	2-Oct-06	7.98		
20-Jul-06	15.2	3-Oct-06	6.78		
21-Jul-06	24.6	4-Oct-06	6.67		
22-Jul-06	36.7	5-Oct-06	7.52		
23-Jul-06	33.9	6-Oct-06	6.17		
24-Jul-06	28.6	7-Oct-06	5.49		
25-Jul-06	29.6	8-Oct-06	5.02		
26-Jul-06	27.3	9-Oct-06	4.97		
27-Jul-06	22.7	10-Oct-06	5.77		
28-Jul-06	18.0	11-Oct-06	6.79		
29-Jul-06	18.5	12-Oct-06	6.69		
30-Jul-06	18.5	13-Oct-06	6.33		
31-Jul-06	17.4	14-Oct-06	8.45		
1-Aug-06	14.9	15-Oct-06	7.70		
2-Aug-06	13.2	16-Oct-06	6.03		
3-Aug-06	11.2	17-Oct-06	5.38		
4-Aug-06	10.2	18-Oct-06	5.64		
5-Aug-06	10.6	19-Oct-06	5.84		
6-Aug-06	10.4	20-Oct-06	5.13		
7-Aug-06	9.37	21-Oct-06	4.93		
8-Aug-06	10.5	22-Oct-06	5.23		
9-Aug-06	10.1	23-Oct-06	6.07		
10-Aug-06	9.89	24-Oct-06	5.87		
11-Aug-06	9.75	25-Oct-06	5.15		

a Station installed 29-May-2006
b Station decommissioned 26-Oct-2006

Table A2-4

Summary of Mean Daily Flow [m^3/s] at Schaft Creek 1 (Sc-1), 2006

Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]
26-May-06	a	8-Aug-06		21-Oct-06	
27-May-06	-	9-Aug-06		22-Oct-06	
28-May-06	-	10-Aug-06		23-Oct-06	
29-May-06	-	11-Aug-06		24-Oct-06	
30-May-06	2.20	12-Aug-06		25-Oct-06	
31-May-06	2.32	13-Aug-06		26-Oct-06	c
1-Jun-06	2.41	14-Aug-06			
2-Jun-06	2.66	15-Aug-06			
3-Jun-06	2.68	16-Aug-06			
4-Jun-06	2.38	17-Aug-06			
5-Jun-06	2.34	18-Aug-06			
6-Jun-06	2.32	19-Aug-06			
7-Jun-06	2.24	20-Aug-06			
8-Jun-06	2.46	21-Aug-06			
9-Jun-06	2.89	22-Aug-06			
10-Jun-06	3.26	23-Aug-06			
11-Jun-06	4.25	24-Aug-06			
12-Jun-06	5.89	25-Aug-06			
13-Jun-06	9.79	26-Aug-06			
14-Jun-06	21.7	27-Aug-06			
15-Jun-06	19.9	28-Aug-06			
16-Jun-06	15.5	29-Aug-06			
17-Jun-06	13.1	30-Aug-06			
18-Jun-06	10.6	31-Aug-06			
19-Jun-06	9.10	1-Sep-06			
20-Jun-06	8.00	2-Sep-06			
21-Jun-06	7.24	3-Sep-06			
22-Jun-06	6.85	4-Sep-06			
23-Jun-06	7.74	5-Sep-06			
24-Jun-06	29.7	6-Sep-06			
25-Jun-06	10.3	7-Sep-06			
26-Jun-06	13.6	8-Sep-06			
27-Jun-06	13.8	9-Sep-06			
28-Jun-06	10.9	10-Sep-06			
29-Jun-06	10.7	11-Sep-06			
30-Jun-06	12.2	12-Sep-06			
1-Jul-06	15.1	13-Sep-06			
2-Jul-06	14.9	14-Sep-06			
3-Jul-06	15.3	15-Sep-06			
4-Jul-06	18.7	16-Sep-06			
5-Jul-06	23.5	17-Sep-06			
6-Jul-06	30.0	18-Sep-06			
7-Jul-06	32.4	19-Sep-06			
8-Jul-06	30.2	20-Sep-06			
9-Jul-06	29.2	21-Sep-06			
10-Jul-06	23.9	22-Sep-06			
11-Jul-06	24.1	23-Sep-06			
12-Jul-06	22.6	24-Sep-06			
13-Jul-06	23.2	25-Sep-06			
14-Jul-06	18.6	26-Sep-06			
15-Jul-06	15.7	27-Sep-06			
16-Jul-06	17.4	28-Sep-06			
17-Jul-06	20.1	29-Sep-06			
18-Jul-06	19.0	30-Sep-06			
19-Jul-06	19.1	1-Oct-06			
20-Jul-06	22.7	2-Oct-06			
21-Jul-06	47.7	3-Oct-06			
22-Jul-06	16.2	4-Oct-06			
23-Jul-06	b	5-Oct-06			
24-Jul-06		6-Oct-06			
25-Jul-06		7-Oct-06			
26-Jul-06		8-Oct-06			
27-Jul-06		9-Oct-06			
28-Jul-06		10-Oct-06			
29-Jul-06		11-Oct-06			
30-Jul-06		12-Oct-06			
31-Jul-06		13-Oct-06			
1-Aug-06		14-Oct-06			
2-Aug-06		15-Oct-06			
3-Aug-06		16-Oct-06			
4-Aug-06		17-Oct-06			
5-Aug-06		18-Oct-06			
6-Aug-06		19-Oct-06			
7-Aug-06		20-Oct-06			

a Station installed 26-May-2006

b Pressure transducer was destroyed 22-Jul-2006

c Station decommissioned 26-Oct-2006

Table A2-5

Summary of Mean Daily Flow [m^3/s] at Schaft Creek 2 (Sc-2), 2006

Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]
27-May-06	17.8, a	10-Aug-06	23.6	24-Oct-06	-
28-May-06	18.0	11-Aug-06	23.6	25-Oct-06	-
29-May-06	18.7	12-Aug-06	27.8	26-Oct-06	b
30-May-06	18.0	13-Aug-06	29.9		
31-May-06	18.8	14-Aug-06	27.6		
1-Jun-06	20.8	15-Aug-06	25.0		
2-Jun-06	24.3	16-Aug-06	27.4		
3-Jun-06	23.2	17-Aug-06	33.0		
4-Jun-06	19.6	18-Aug-06	35.0		
5-Jun-06	17.7	19-Aug-06	26.0		
6-Jun-06	17.9	20-Aug-06	24.2		
7-Jun-06	17.1	21-Aug-06	24.6		
8-Jun-06	17.8	22-Aug-06	23.5		
9-Jun-06	20.2	23-Aug-06	22.4		
10-Jun-06	23.2	24-Aug-06	24.4		
11-Jun-06	29.0	25-Aug-06	31.7		
12-Jun-06	40.0	26-Aug-06	32.0		
13-Jun-06	49.0	27-Aug-06	23.4		
14-Jun-06	53.2	28-Aug-06	20.2		
15-Jun-06	49.8	29-Aug-06	14.4		
16-Jun-06	43.3	30-Aug-06	11.5		
17-Jun-06	37.7	31-Aug-06	12.1		
18-Jun-06	32.7	1-Sep-06	38.0		
19-Jun-06	30.1	2-Sep-06	44.9		
20-Jun-06	26.7	3-Sep-06	34.9		
21-Jun-06	24.9	4-Sep-06	36.3		
22-Jun-06	22.6	5-Sep-06	35.1		
23-Jun-06	21.8	6-Sep-06	23.1		
24-Jun-06	27.8	7-Sep-06	24.7		
25-Jun-06	24.7	8-Sep-06	28.8		
26-Jun-06	28.6	9-Sep-06	21.6		
27-Jun-06	26.3	10-Sep-06	17.8		
28-Jun-06	22.7	11-Sep-06	7.25		
29-Jun-06	20.0	12-Sep-06	-		
30-Jun-06	21.9	13-Sep-06	-		
1-Jul-06	26.9	14-Sep-06	-		
2-Jul-06	28.7	15-Sep-06	-		
3-Jul-06	28.8	16-Sep-06	-		
4-Jul-06	34.3	17-Sep-06	-		
5-Jul-06	37.8	18-Sep-06	-		
6-Jul-06	38.1	19-Sep-06	-		
7-Jul-06	40.8	20-Sep-06	-		
8-Jul-06	37.0	21-Sep-06	-		
9-Jul-06	37.9	22-Sep-06	-		
10-Jul-06	35.1	23-Sep-06	17.5		
11-Jul-06	32.8	24-Sep-06	57.4		
12-Jul-06	31.1	25-Sep-06	60.2		
13-Jul-06	31.0	26-Sep-06	38.3		
14-Jul-06	27.9	27-Sep-06	45.9		
15-Jul-06	24.5	28-Sep-06	35.2		
16-Jul-06	24.7	29-Sep-06	36.8		
17-Jul-06	27.9	30-Sep-06	23.5		
18-Jul-06	26.2	1-Oct-06	14.0		
19-Jul-06	26.4	2-Oct-06	4.02		
20-Jul-06	28.7	3-Oct-06	31.0		
21-Jul-06	46.1	4-Oct-06	-		
22-Jul-06	78.0	5-Oct-06	-		
23-Jul-06	72.7	6-Oct-06	19.6		
24-Jul-06	60.9	7-Oct-06	24.8		
25-Jul-06	60.0	8-Oct-06	22.2		
26-Jul-06	55.2	9-Oct-06	9.89		
27-Jul-06	44.6	10-Oct-06	9.94		
28-Jul-06	35.6	11-Oct-06	14.7		
29-Jul-06	36.7	12-Oct-06	16.5		
30-Jul-06	42.1	13-Oct-06	13.8		
31-Jul-06	38.5	14-Oct-06	15.7		
1-Aug-06	31.1	15-Oct-06	11.9		
2-Aug-06	28.0	16-Oct-06	12.9		
3-Aug-06	23.5	17-Oct-06	17.5		
4-Aug-06	21.0	18-Oct-06	-		
5-Aug-06	22.5	19-Oct-06	-		
6-Aug-06	22.6	20-Oct-06	-		
7-Aug-06	19.2	21-Oct-06	-		
8-Aug-06	25.4	22-Oct-06	-		
9-Aug-06	24.4	23-Oct-06	-		

a Station installed 27-May-2006

b Station decommissioned 26-Oct-2006

Table A2-6

Summary of Mean Daily Flow [m³/s] at Schaft Creek Tributary 1 (Sctr-1), 2006

Date	Mean Daily Flow [m³/s]	Date	Mean Daily Flow [m³/s]	Date	Mean Daily Flow [m³/s]
27-May-06	a	10-Aug-06	0.32	24-Oct-06	0.18
28-May-06	-	11-Aug-06	0.31	25-Oct-06	0.18
29-May-06	-	12-Aug-06	0.32	26-Oct-06	0.17, b
30-May-06	0.69	13-Aug-06	0.35		
31-May-06	0.75	14-Aug-06	0.33		
1-Jun-06	0.88	15-Aug-06	0.31		
2-Jun-06	1.18	16-Aug-06	0.36		
3-Jun-06	0.98	17-Aug-06	0.40		
4-Jun-06	0.75	18-Aug-06	0.39		
5-Jun-06	0.65	19-Aug-06	0.31		
6-Jun-06	0.62	20-Aug-06	0.30		
7-Jun-06	0.61	21-Aug-06	0.30		
8-Jun-06	0.65	22-Aug-06	0.29		
9-Jun-06	0.73	23-Aug-06	0.28		
10-Jun-06	0.84	24-Aug-06	0.31		
11-Jun-06	0.99	25-Aug-06	0.39		
12-Jun-06	1.42	26-Aug-06	0.34		
13-Jun-06	1.67	27-Aug-06	0.33		
14-Jun-06	1.20	28-Aug-06	0.36		
15-Jun-06	0.89	29-Aug-06	0.26		
16-Jun-06	0.80	30-Aug-06	0.23		
17-Jun-06	0.71	31-Aug-06	0.26		
18-Jun-06	0.64	1-Sep-06	0.56		
19-Jun-06	0.59	2-Sep-06	0.48		
20-Jun-06	0.53	3-Sep-06	0.44		
21-Jun-06	0.50	4-Sep-06	0.49		
22-Jun-06	0.45	5-Sep-06	0.34		
23-Jun-06	0.38	6-Sep-06	0.29		
24-Jun-06	0.36	7-Sep-06	0.39		
25-Jun-06	0.45	8-Sep-06	0.41		
26-Jun-06	0.50	9-Sep-06	0.28		
27-Jun-06	0.42	10-Sep-06	0.26		
28-Jun-06	0.34	11-Sep-06	0.22		
29-Jun-06	0.31	12-Sep-06	0.20		
30-Jun-06	0.33	13-Sep-06	0.20		
1-Jul-06	0.36	14-Sep-06	0.18		
2-Jul-06	0.38	15-Sep-06	0.17		
3-Jul-06	0.39	16-Sep-06	0.16		
4-Jul-06	0.41	17-Sep-06	0.16		
5-Jul-06	0.43	18-Sep-06	0.16		
6-Jul-06	0.40	19-Sep-06	0.16		
7-Jul-06	0.34	20-Sep-06	0.17		
8-Jul-06	0.34	21-Sep-06	0.16		
9-Jul-06	0.35	22-Sep-06	0.16		
10-Jul-06	0.30	23-Sep-06	0.37		
11-Jul-06	0.29	24-Sep-06	0.95		
12-Jul-06	0.28	25-Sep-06	0.70		
13-Jul-06	0.28	26-Sep-06	0.44		
14-Jul-06	0.25	27-Sep-06	0.49		
15-Jul-06	0.23	28-Sep-06	0.39		
16-Jul-06	0.23	29-Sep-06	0.39		
17-Jul-06	0.23	30-Sep-06	0.29		
18-Jul-06	0.22	1-Oct-06	0.25		
19-Jul-06	0.23	2-Oct-06	0.22		
20-Jul-06	0.25	3-Oct-06	0.20		
21-Jul-06	0.45	4-Oct-06	0.22		
22-Jul-06	0.92	5-Oct-06	0.22		
23-Jul-06	1.25	6-Oct-06	0.20		
24-Jul-06	1.11	7-Oct-06	0.19		
25-Jul-06	1.14	8-Oct-06	0.18		
26-Jul-06	0.82	9-Oct-06	0.18		
27-Jul-06	0.54	10-Oct-06	0.18		
28-Jul-06	0.41	11-Oct-06	0.26		
29-Jul-06	0.45	12-Oct-06	0.24		
30-Jul-06	0.54	13-Oct-06	0.24		
31-Jul-06	0.51	14-Oct-06	0.27		
1-Aug-06	0.44	15-Oct-06	0.24		
2-Aug-06	0.38	16-Oct-06	0.21		
3-Aug-06	0.33	17-Oct-06	0.20		
4-Aug-06	0.31	18-Oct-06	0.19		
5-Aug-06	0.36	19-Oct-06	0.20		
6-Aug-06	0.32	20-Oct-06	0.19		
7-Aug-06	0.30	21-Oct-06	0.18		
8-Aug-06	0.39	22-Oct-06	0.18		
9-Aug-06	0.33	23-Oct-06	0.19		

a Station installed 27-May-2006

b Station decommissioned 26-Oct-2006

Table A2-7

Summary of Mean Daily Flow [m^3/s] at Skeeter Lake 1 (Sk-1), 2006

Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]
29-May-06	1.58, a	12-Aug-06	0.63	26-Oct-06	0.31, b
30-May-06	1.49	13-Aug-06	0.66		
31-May-06	1.47	14-Aug-06	0.66		
1-Jun-06	1.47	15-Aug-06	0.62		
2-Jun-06	1.54	16-Aug-06	0.61		
3-Jun-06	1.60	17-Aug-06	0.65		
4-Jun-06	1.54	18-Aug-06	0.66		
5-Jun-06	1.48	19-Aug-06	0.62		
6-Jun-06	1.42	20-Aug-06	0.60		
7-Jun-06	1.36	21-Aug-06	0.59		
8-Jun-06	1.29	22-Aug-06	0.58		
9-Jun-06	1.28	23-Aug-06	0.57		
10-Jun-06	1.31	24-Aug-06	0.56		
11-Jun-06	1.38	25-Aug-06	0.58		
12-Jun-06	1.63	26-Aug-06	0.59		
13-Jun-06	1.98	27-Aug-06	0.55		
14-Jun-06	2.22	28-Aug-06	0.55		
15-Jun-06	2.31	29-Aug-06	0.52		
16-Jun-06	2.18	30-Aug-06	0.48		
17-Jun-06	1.95	31-Aug-06	0.44		
18-Jun-06	1.78	1-Sep-06	0.54		
19-Jun-06	1.61	2-Sep-06	0.55		
20-Jun-06	1.49	3-Sep-06	0.52		
21-Jun-06	1.41	4-Sep-06	0.54		
22-Jun-06	1.30	5-Sep-06	0.55		
23-Jun-06	1.20	6-Sep-06	0.50		
24-Jun-06	1.07	7-Sep-06	0.50		
25-Jun-06	1.00	8-Sep-06	0.53		
26-Jun-06	0.99	9-Sep-06	0.50		
27-Jun-06	1.07	10-Sep-06	0.47		
28-Jun-06	1.11	11-Sep-06	0.43		
29-Jun-06	1.03	12-Sep-06	0.40		
30-Jun-06	0.96	13-Sep-06	0.38		
1-Jul-06	0.96	14-Sep-06	0.36		
2-Jul-06	1.07	15-Sep-06	0.32		
3-Jul-06	1.20	16-Sep-06	0.31		
4-Jul-06	1.29	17-Sep-06	0.30		
5-Jul-06	1.47	18-Sep-06	0.30		
6-Jul-06	1.53	19-Sep-06	0.29		
7-Jul-06	1.56	20-Sep-06	0.29		
8-Jul-06	1.59	21-Sep-06	0.28		
9-Jul-06	1.52	22-Sep-06	0.28		
10-Jul-06	1.46	23-Sep-06	0.34		
11-Jul-06	1.39	24-Sep-06	0.67		
12-Jul-06	1.31	25-Sep-06	0.71		
13-Jul-06	1.25	26-Sep-06	0.59		
14-Jul-06	1.14	27-Sep-06	0.57		
15-Jul-06	1.04	28-Sep-06	0.56		
16-Jul-06	0.96	29-Sep-06	0.62		
17-Jul-06	0.94	30-Sep-06	0.57		
18-Jul-06	0.93	1-Oct-06	0.54		
19-Jul-06	0.92	2-Oct-06	0.51		
20-Jul-06	0.92	3-Oct-06	0.48		
21-Jul-06	1.02	4-Oct-06	0.48		
22-Jul-06	1.33	5-Oct-06	0.50		
23-Jul-06	1.52	6-Oct-06	0.45		
24-Jul-06	1.51	7-Oct-06	0.41		
25-Jul-06	1.55	8-Oct-06	0.39		
26-Jul-06	1.53	9-Oct-06	0.38		
27-Jul-06	1.45	10-Oct-06	0.38		
28-Jul-06	1.28	11-Oct-06	0.39		
29-Jul-06	1.16	12-Oct-06	0.41		
30-Jul-06	1.13	13-Oct-06	0.43		
31-Jul-06	1.11	14-Oct-06	0.45		
1-Aug-06	1.05	15-Oct-06	0.44		
2-Aug-06	0.97	16-Oct-06	0.40		
3-Aug-06	0.88	17-Oct-06	0.38		
4-Aug-06	0.81	18-Oct-06	0.38		
5-Aug-06	0.77	19-Oct-06	0.37		
6-Aug-06	0.73	20-Oct-06	0.35		
7-Aug-06	0.69	21-Oct-06	0.32		
8-Aug-06	0.70	22-Oct-06	0.32		
9-Aug-06	0.66	23-Oct-06	0.34		
10-Aug-06	0.63	24-Oct-06	0.34		
11-Aug-06	0.61	25-Oct-06	0.32		

a **Station installed 29-May-2006**

b **Station decommissioned 26-Oct-2006**

Table A2-8

Summary of Mean Daily Flow [m^3/s] at Skeeter Lake 2 (Sk-2), 2006

Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]	Date	Mean Daily Flow [m^3/s]
28-May-06	4.91, a	11-Aug-06	1.13	25-Oct-06	0.46
29-May-06	2.59	12-Aug-06	1.09	26-Oct-06	0.45, b
30-May-06	3.18	13-Aug-06	1.04		
31-May-06	2.65	14-Aug-06	1.00		
1-Jun-06	2.94	15-Aug-06	0.97		
2-Jun-06	3.43	16-Aug-06	0.94		
3-Jun-06	4.05	17-Aug-06	0.91		
4-Jun-06	3.49	18-Aug-06	0.92		
5-Jun-06	3.17	19-Aug-06	0.93		
6-Jun-06	3.05	20-Aug-06	0.89		
7-Jun-06	2.78	21-Aug-06	0.84		
8-Jun-06	2.74	22-Aug-06	0.80		
9-Jun-06	2.37	23-Aug-06	0.77		
10-Jun-06	2.11	24-Aug-06	0.75		
11-Jun-06	1.92	25-Aug-06	0.72		
12-Jun-06	1.54	26-Aug-06	0.70		
13-Jun-06	1.33	27-Aug-06	0.67		
14-Jun-06	1.26	28-Aug-06	0.67		
15-Jun-06	1.07	29-Aug-06	0.73		
16-Jun-06	0.94	30-Aug-06	0.76		
17-Jun-06	0.96	31-Aug-06	0.71		
18-Jun-06	2.44	1-Sep-06	0.67		
19-Jun-06	4.27	2-Sep-06	0.85		
20-Jun-06	3.90	3-Sep-06	0.76		
21-Jun-06	3.64	4-Sep-06	0.71		
22-Jun-06	3.22	5-Sep-06	0.65		
23-Jun-06	3.12	6-Sep-06	0.62		
24-Jun-06	2.77	7-Sep-06	0.60		
25-Jun-06	2.70	8-Sep-06	0.59		
26-Jun-06	2.65	9-Sep-06	0.57		
27-Jun-06	2.51	10-Sep-06	0.54		
28-Jun-06	2.34	11-Sep-06	0.58		
29-Jun-06	2.31	12-Sep-06	0.53		
30-Jun-06	2.20	13-Sep-06	0.50		
1-Jul-06	2.07	14-Sep-06	0.50		
2-Jul-06	2.07	15-Sep-06	0.51		
3-Jul-06	2.00	16-Sep-06	0.48		
4-Jul-06	2.01	17-Sep-06	0.46		
5-Jul-06	2.03	18-Sep-06	0.44		
6-Jul-06	1.99	19-Sep-06	0.44		
7-Jul-06	2.17	20-Sep-06	0.44		
8-Jul-06	2.10	21-Sep-06	0.44		
9-Jul-06	2.11	22-Sep-06	0.41		
10-Jul-06	1.98	23-Sep-06	0.40		
11-Jul-06	1.87	24-Sep-06	0.60		
12-Jul-06	1.89	25-Sep-06	1.54		
13-Jul-06	1.86	26-Sep-06	1.46		
14-Jul-06	1.82	27-Sep-06	1.12		
15-Jul-06	1.76	28-Sep-06	0.97		
16-Jul-06	1.72	29-Sep-06	0.87		
17-Jul-06	1.65	30-Sep-06	0.90		
18-Jul-06	1.66	1-Oct-06	0.84		
19-Jul-06	1.66	2-Oct-06	0.75		
20-Jul-06	1.62	3-Oct-06	0.68		
21-Jul-06	1.68	4-Oct-06	0.62		
22-Jul-06	-	5-Oct-06	0.63		
23-Jul-06	1.69	6-Oct-06	0.72		
24-Jul-06	1.68	7-Oct-06	0.61		
25-Jul-06	1.67	8-Oct-06	0.58		
26-Jul-06	1.65	9-Oct-06	0.54		
27-Jul-06	1.69	10-Oct-06	0.51		
28-Jul-06	1.66	11-Oct-06	0.52		
29-Jul-06	1.62	12-Oct-06	0.51		
30-Jul-06	1.65	13-Oct-06	0.49		
31-Jul-06	1.63	14-Oct-06	0.50		
1-Aug-06	1.55	15-Oct-06	0.53		
2-Aug-06	1.48	16-Oct-06	0.56		
3-Aug-06	1.46	17-Oct-06	0.51		
4-Aug-06	1.43	18-Oct-06	0.48		
5-Aug-06	1.34	19-Oct-06	0.51		
6-Aug-06	1.33	20-Oct-06	0.51		
7-Aug-06	1.27	21-Oct-06	0.47		
8-Aug-06	1.20	22-Oct-06	0.45		
9-Aug-06	1.28	23-Oct-06	0.43		
10-Aug-06	1.18	24-Oct-06	0.45		

a Station installed 28-May-2006

b Station decommissioned 26-Oct-2006