

Schaft Creek Fisheries Baseline 2007



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Prepared by:

Rescan Tahltan Environmental Consultants
Vancouver, British Columbia

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EXECUTIVE SUMMARY



Executive Summary

Copper Fox Metals' proposed Schaft Creek Project has mineral claims situated within the Cassiar Iskut-Stikine Land and Resource Management area which encompasses a total of 5.2 million hectares. The mineral claims of interest are situated near the headwaters of Schaft Creek, a tributary of Mess Creek, which flows into the Stikine River downstream of the community of Telegraph Creek. This report presents the results of field studies conducted between June and September 2007 on the morphology, habitat quality, and fish community of the Schaft Creek Project Area.

The main components of the field program plan in 2007 were:

- To assess fish community and habitat along the proposed road, including potential harmful alterations, disruptions or destruction (HADD) of fish habitat;
- To assess fish and fish habitat at sites within the mine receiving environment (the area directly downstream of mine facilities) and at reference sites;
- To confirm the impassability of fish-barriers that limit fish distribution in the Project area; and,
- To collect baseline information on tissue metals, fish health, and fish energy and reproductive investment at potential long-term monitoring sites as per the Metal Mining and Effluent Regulations (MMER).

Along the proposed road route, 197 sites were assessed, 131 of which were classified as streams, while the rest were designated as “non-classified drainages” (NCDs - 63) and “fisheries sensitive zones” (FSZs - 3). Fisheries sensitive zones are areas that do not fit under the classifications of stream, lake or wetland, but which do provide important fish habitat at certain times of the year. Examples include backwater areas and flooded depressions. The majority of sites were classified as non-fish bearing due to fish passage barriers and/or poor habitat. A total of 28 sites were designated as fish-bearing or potentially fish-bearing based on a combination of sampling, absence of barriers and good habitat quality. Among fish-bearing and potentially fish-bearing sites, habitat importance ranged from marginal (defined as habitat that could support fish, but is unlikely to provide important habitat features) to critical (defined as habitat that is extremely important for fish development and rare in the Project area). Sites were only electrofished if non-fish bearing status could not be confirmed due to the absence of barriers or presence of upstream habitat refuges. A total of 18 stream crossing sites were electrofished in 2007, with two fish being captured. Sites were not electrofished if the habitat quality was fair to good, and there were no permanent barriers to fish migration located between the stream crossing and the nearest fish-bearing waterbody.

A total of 23 receiving environment stream sites were surveyed in 8 watersheds: Hickman, Mess, Schaft, Stikine, Skeeter, Tailings C, Walkout and Yehiniko. Walkout and Yehiniko creeks served as reference sites. In general, sites were similar with respect to channel morphology and

size. Stream sites in the Skeeter Creek watershed generally had smaller bankfull widths and higher gradients, while sites on the Stikine River had larger bankfull widths and lower gradients.

Habitat quality was assessed in terms of its value to rainbow trout (*Oncorhynchus mykiss*), the dominant fish species in the Project area. Spawning habitat for rainbow trout was poor throughout all of the receiving environment watersheds. Spawning habitat quality differed between reference sites, with Walkout Creek having poor spawning habitat, and Yehiniko Creek having good quality spawning habitat. Rearing habitat was also poor throughout most of the receiving environment watersheds except the Mess and Schaft watersheds, where rearing habitat quality was fair. The reference environment watersheds possessed rearing habitat suitability of poor (*i.e.*, Walkout) and fair (*i.e.*, Yehiniko). Over-wintering habitat quality was poor within all receiving environment watersheds except Mess Watershed, where over-wintering habitat quality was fair. The reference environment watersheds possessed poor over-wintering habitat.

Fish distribution in the receiving environment watersheds is limited by a collection of confirmed and suspected fish-passage barriers. These barriers are located on Mess Creek, Skeeter Creek, Schaft Creek and Tailings C Creek. The barrier on Mess Creek was thought to prevent Pacific salmon migration into the upper Mess Creek and Schaft Creek watersheds; however, the capture of a suspected Chinook salmon in Mess Lake in 2007 has resulted in some uncertainty with regards to the passability of this barrier. Further investigation into the passability of these barriers will be conducted in 2008.

Wetlands ranged from bogs laced with small, poorly defined stream channels to large ponds with multiple inlets and outlets. Some wetlands included swift, glacial-fed stream channels. Rearing habitat quality was fair to good in most wetlands surveyed, while habitat for overwintering was mostly poor to fair. Spawning habitat quality was poor in most wetlands; however, some fair to good quality spawning habitat was present in streams that flowed through wetlands. Habitat quality for migration was fair to good in most wetlands.

Rainbow trout were the only species captured in receiving environment wetlands in 2007. Trout were captured in six wetlands out of eleven by electrofishing and minnow trapping and were generally healthy and abundant, especially in wetlands that were clear and deep.

Habitat in lakes within the Project area was generally fair to good. Several lakes were very turbid, limiting the habitat quality; however, fair to good quality habitat was available along the margins of most lakes where large woody debris (LWD) cover was moderately abundant. Good quality habitat was also available in some of the non-fish bearing lakes.

Fish presence was limited to four of the seven lakes, and did not seem to be related to lake size. Rather, fish presence was likely determined by the presence of downstream barriers to fish migration. Fish density in most lakes was low, but captured fish were healthy.

ACKNOWLEDGMENTS

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1. INTRODUCTION

1. Introduction

1.1 Background

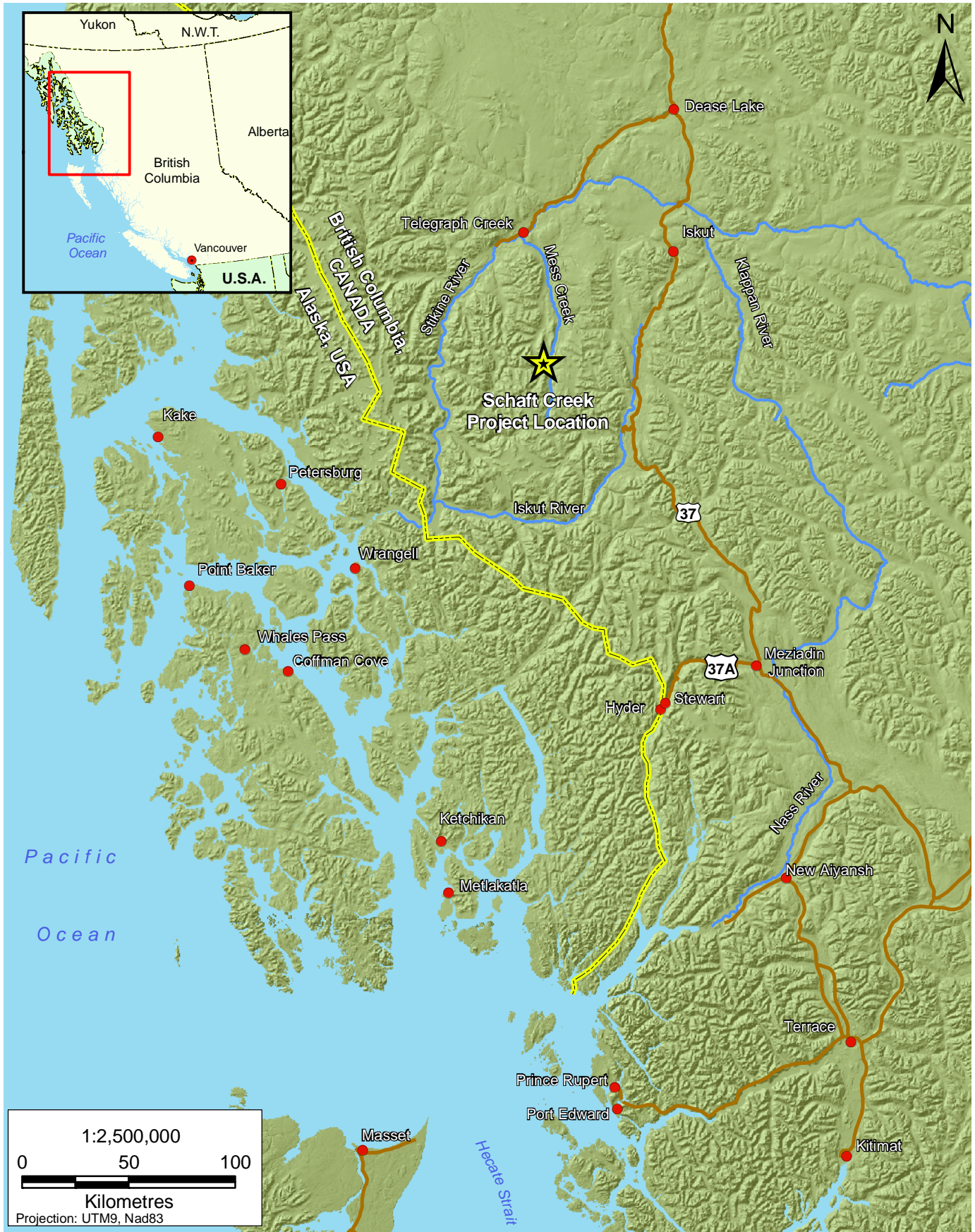
Copper Fox Metals Inc. (Copper Fox) is a Canadian mineral exploration and development company focused on developing the Schaft Creek deposit located in north-western British Columbia, approximately 60 km south of the village of Telegraph Creek (Figure 1.1-1). The Schaft Creek deposit is a polymetallic (copper-gold-silver-molybdenum) deposit located in the Liard District of north-western British Columbia (Latitude 57° 22' 4.2"; 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).

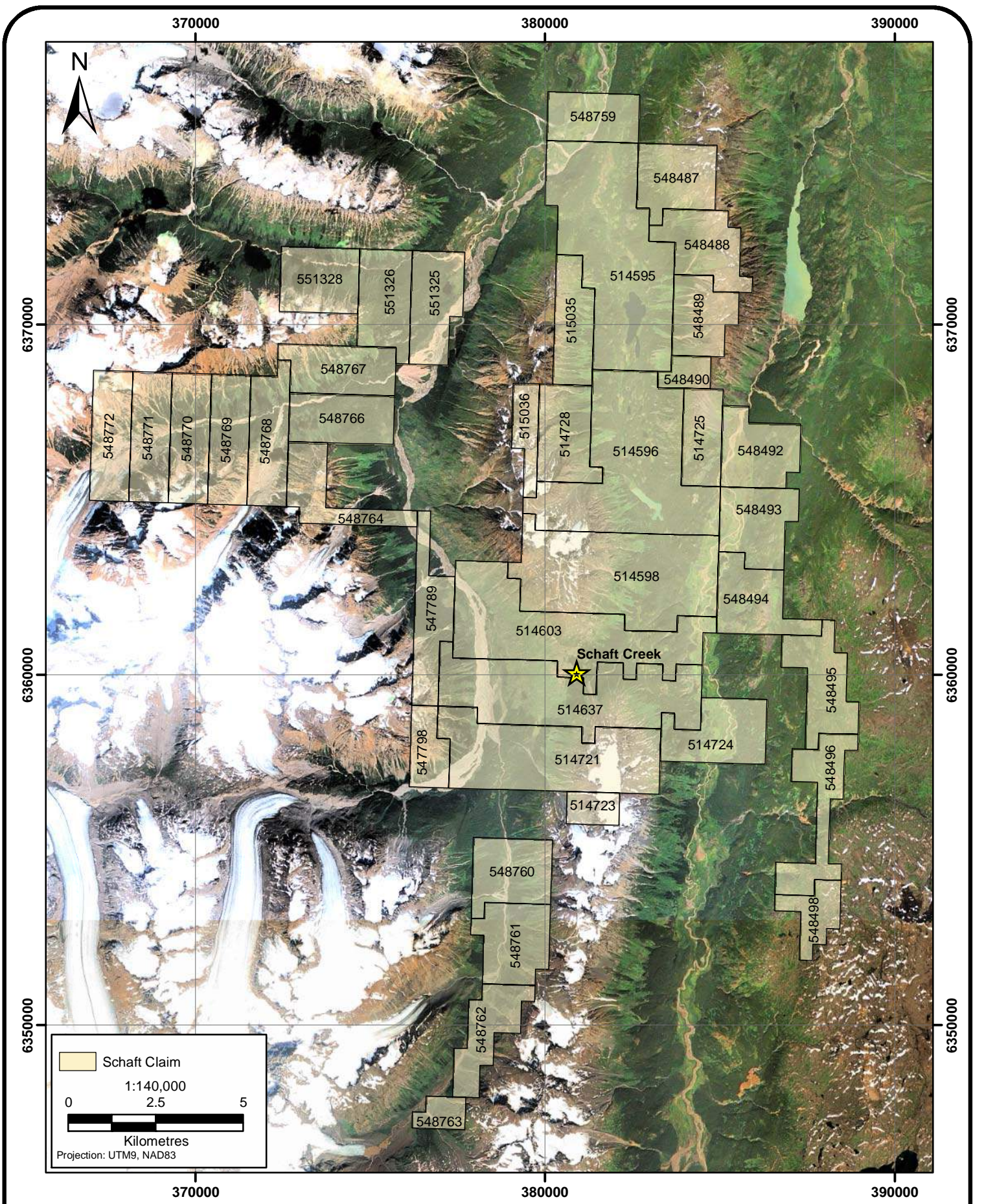
The Schaft Creek Project is located within the traditional territory of the Tahltan Nation. Copper Fox has been in discussions with the Tahltan Central Council (TCC) and the Tahltan Heritage Resources Environmental Assessment Team (THREAT) since initiating exploration activities in 2005. Copper Fox has engaged in numerous agreements with the TCC including a Communications Agreement, Traditional Knowledge Agreement, Letter of Understanding with the Tahltan Nation Development Corporation (TNDC) and a THREAT Agreement. Copper Fox will continue to work together with the Tahltan Nation as work on the Schaft Creek Project continues.

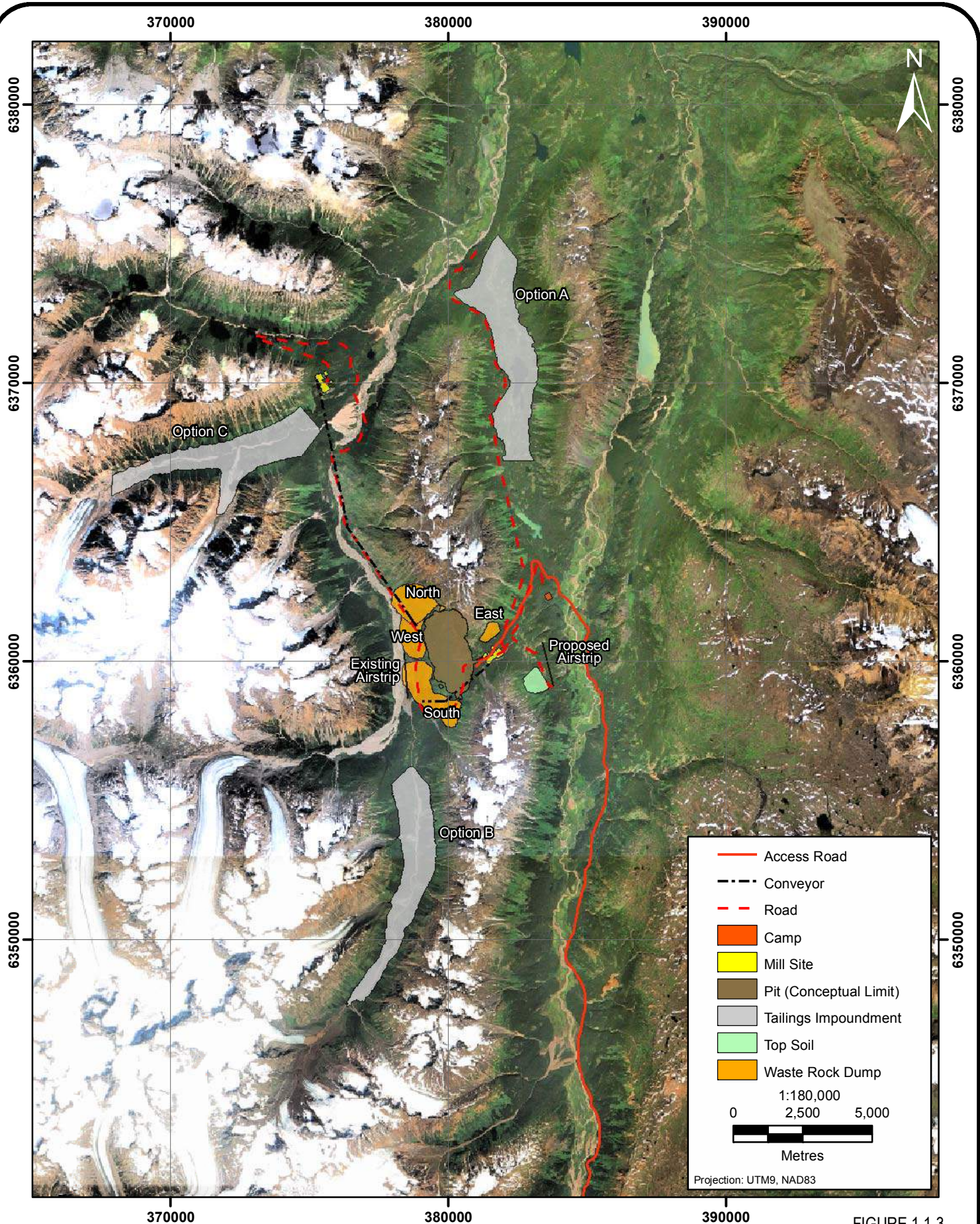
The Schaft Creek deposit was discovered in 1957 and has since been investigated by prospecting, geological mapping, geophysical surveys as well as diamond and percussion drilling. Over 65,000 meters of drilling has been completed on the property as of end of 2007. Additional drilling is planned for 2008 to support future economic assessments of the property and an environmental assessment application.

The Schaft Creek Project entered the British Columbia environmental assessment 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 end of 2008 for submission of their Schaft Creek Environmental Assessment Application.

Copper Fox has recently released a scoping level engineering and economic report for Schaft Creek. The mine and associated infrastructure are presented in Figure 1.1-3. The current mine plan has ore milled from an open pit at a rate of 65,000 tonnes/day. The Schaft deposit will be mined with large truck/shovel operations and typical drill and blast techniques. An explosives manufacturing facility will be constructed on-site to support blasting activities. The mine plan includes 719 million tonnes of minable ore over a 31 year mine life. The Project is estimated to generate up to 1,200 jobs during the construction phase of the Project and approximately 500 permanent jobs during the life of the mine.







Ore will be crushed, milled and filtered on-site to produce copper and molybdenum concentrates. The mill 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 shipping. The mill includes a designated molybdenum circuit with thickener, filtration circuit, drying and bagging. The filter plant will be located at the plant site. A tailings thickener and water reclaim system will be used to recycle process water. The circuit will have a design capacity of 70,652 tonnes per day and a nominal capacity of 65,000 tonnes per day (23,400,000 tonnes per year). The copper and molybdenum concentrates will be shipped via truck from the mill to the port of Stewart, BC.

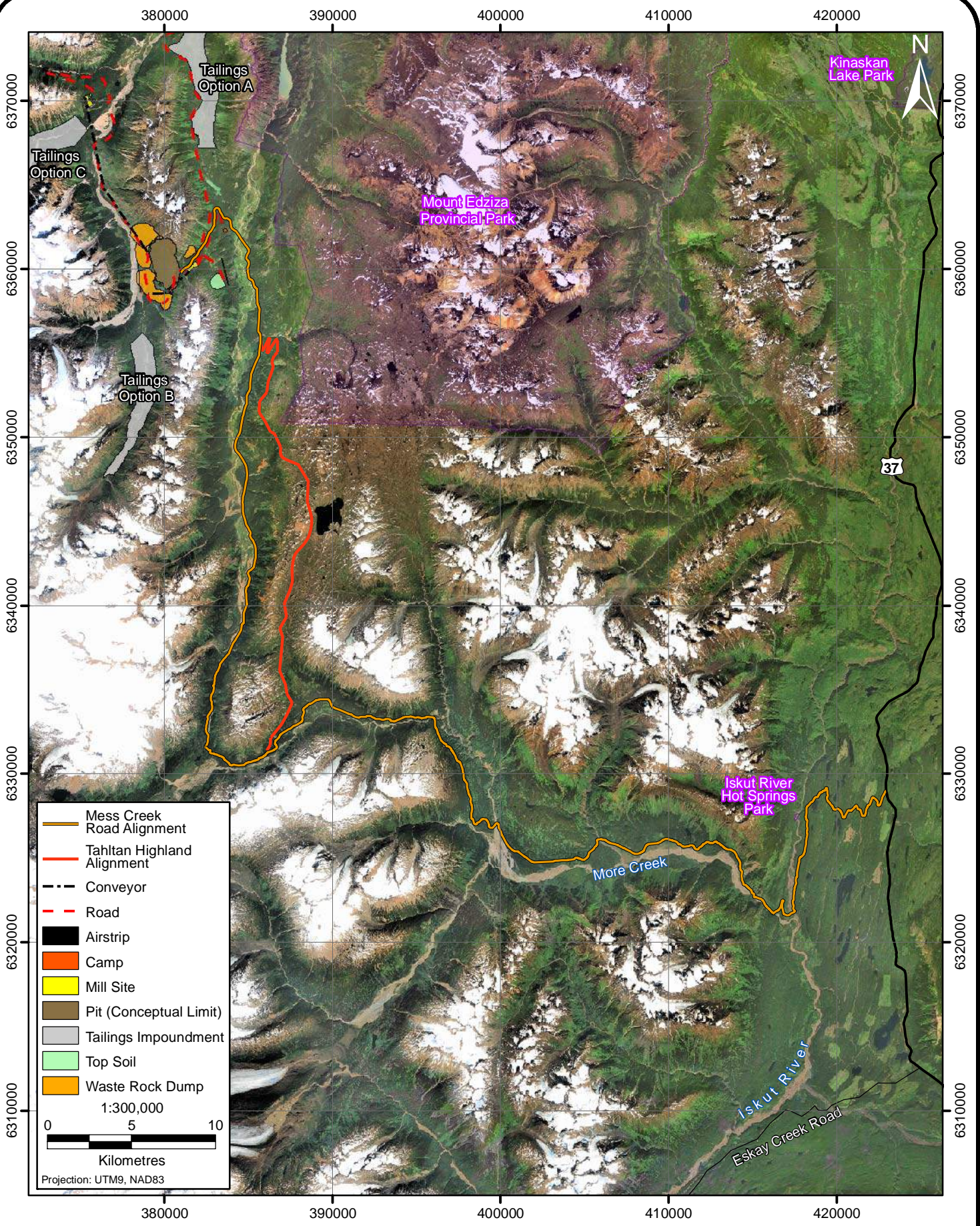
Copper Fox will construct an access road from Highway 37 to the Schaft Creek property. Access to the property from Highway 37 will require approximately 105 km of new road. The first 65 km of the access road to the Schaft Creek property corresponds to the Galore Creek access road. NovaGold and Teck Cominco have currently put a hold on future construction efforts along their access road and the overall Galore Creek Project. Copper Fox will seek approval from the provincial government and NovaGold/Teck Cominco to construct the first 65 km of the Galore Creek access road should the status of the Project not change.

The route of the final 40 km of access road has not been finalized. Copper Fox has completed initial investigations of a route along Mess Creek. An alternative route is also being considered that utilizes the plateau to the east of Mess Creek. Copper Fox is currently investigating the feasibility, as it relates to geohazards, of the two alignments. Both alignments include a 30 m bridge on Mess Creek. Mess Creek is considered navigable as per Transportation Canada criteria. Figure 1.1-4 presents the access road alignment that follows the Galore Creek road (65 km from Highway 37) and the Mess Creek alignment (40 km) to the Schaft Creek property.

Over the life of the mine, the Schaft Creek Project will generate over 700 million tonnes of tailings. There are three tailings facilities being considered (Figure 1.1-3). The three options will undergo an alternatives assessment that will include engineering, construction and operating costs, geotechnical, geohazards, environmental and social considerations. The Project will generate over a billion tonnes of waste rock. Waste rock dumps are proposed around the perimeter of the pit (Figure 1.1-3). This includes the flat area between the proposed pit and Schaft Creek.

A detailed water management plan has yet to be developed for the Project. A water management plan will be included in the next level of economic assessment (pre-feasibility) and the next Project description update. A waste water discharge is expected from the tailings facility, waste rock dumps and domestic waste water treatment plant. The management plan will detail the plans to minimize natural drainage into the tailings facility, the pit and the waste rock dumps. Pit water will be pumped to the tailings facility.

A new airfield will be constructed to the east of the pit (Figure 1.1-3). The Project will be a fly-in, fly-out operation. The new landing strip will be capable of handling a Boeing 737. Other facilities include a terminal building, fuelling, maintenance and control facilities.



	Mess Creek Road Alignment
	Tahltan Highland Alignment
	Conveyor
	Road
	Airstrip
	Camp
	Mill Site
	Pit (Conceptual Limit)
	Tailings Impoundment
	Top Soil
	Waste Rock Dump

1:300,000

0 5 10

Kilometres

Projection: UTM9, NAD83



Proposed Access Road Alignment for the Schaft Creek Project



FIGURE 1.1-4

A permanent camp will be constructed to support a staff of approximately 500 employees. Other facilities include truck shop, warehouse, administration, maintenance laboratory, explosives storage, water treatment facilities and potable water storage.

Copper Fox has targeted the end of 2008 for submission of their Environmental Assessment Application and full Feasibility Report. Screening of the EA Application plus the 180 day review period will result in Project approval as early as July 2009. Copper Fox will likely seek concurrent permitting for strategic permits to facilitate the timely construction of key Project components. Construction is estimated to take two and half years. Thus, production could begin by early 2012.

1.2 Objectives

The objectives of the 2007 Schaft Creek Fisheries Baseline Program were to provide background information on fish and fish habitat that may be impacted by mine facilities, including the pit, waste rock facilities, tailings facilities and access road. The 2007 program expands on information collected during 2006 and will aid in the assessment of potential impacts that will be completed in 2008. The main components of the 2007 baseline program were:

- To assess fish and fish habitat at sites within the mine receiving environment (the area directly downstream of mine facilities) and at reference sites;
- To assess fish community and habitat along the proposed road, including potential harmful alterations, disruptions or destruction (HADD) of fish habitat;
- To confirm the impassability of fish-barriers that limit fish distribution in the Project area; and,
- To collect baseline information on tissue metals, fish health, and fish energy and reproductive investment at potential long-term monitoring sites as per the Metal Mining and Effluent Regulations (MMER).

2. METHODS

2. Methods

2.1 Site Selection

For the purpose of this study, survey sites were divided into two categories: 1) receiving environment, and 2) the proposed access road route. Receiving environment sites are those that may be directly influenced by mine development, and are located at streams, lakes and wetlands downstream of proposed mine features. Reference sites were also selected and will be used in the future to determine if any changes observed at sites downstream of the mine are due to mining activities, or due to natural changes in the environment.

Sites along the proposed road route consist of streams and waterbodies that may potentially be affected by road development.

At all sites, habitat quality was assessed in terms of its value to rainbow trout (*Oncorhynchus mykiss*), the dominant fish species in the Project area.

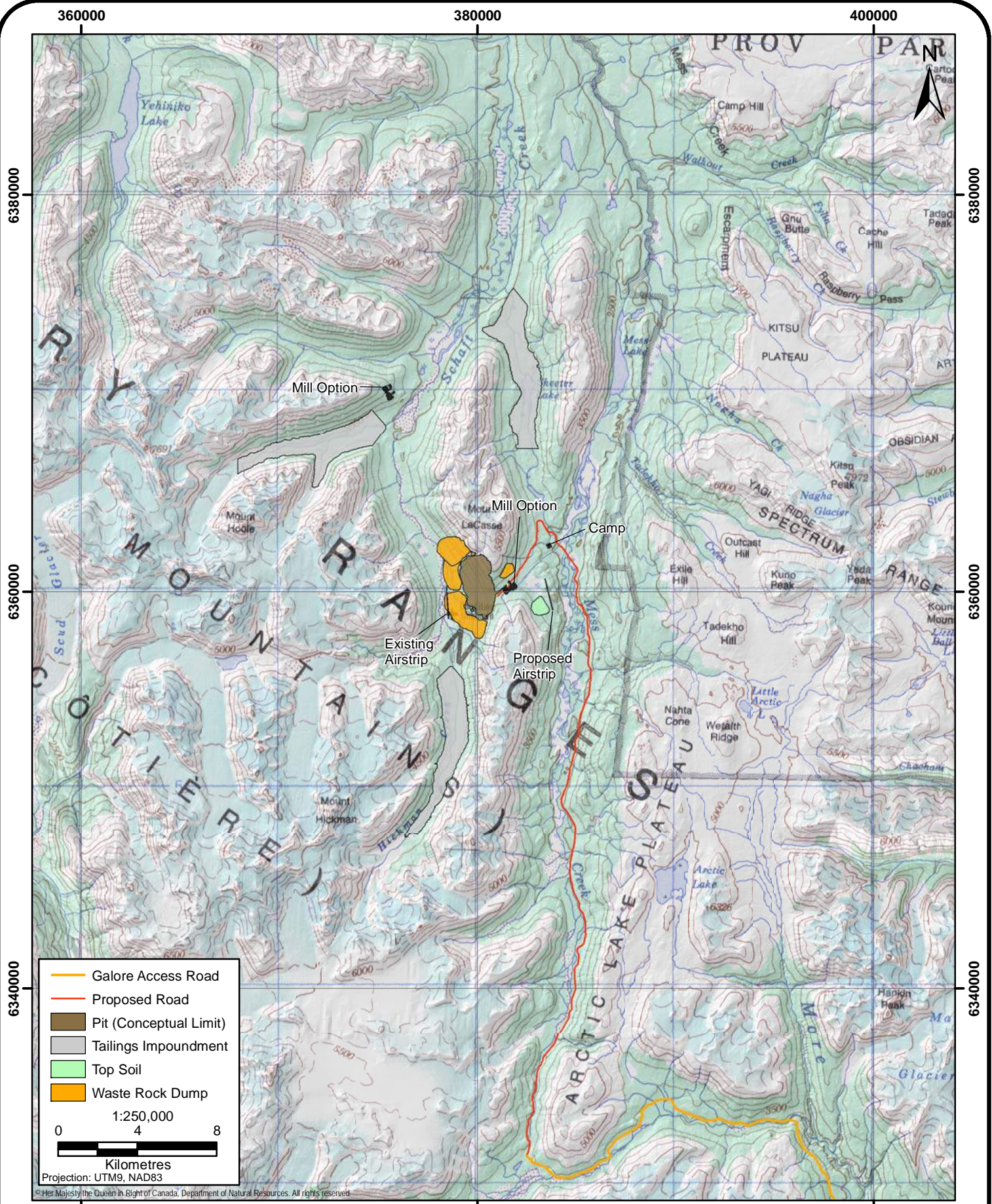
2.2 Access Road

2.2.1 Fish Habitat

The proposed Schaft Creek Access Road begins at kilometer 65 of the proposed Galore Creek Access Road. From there, it crosses the watershed divide between More Creek and Mess Creek, and follows Mess Creek approximately 35 km north, where it crosses Mess Creek and approaches the proposed mine site on Schaft Creek (Figure 2.2-1). Streams and waterbodies crossing or in the vicinity of the proposed road route were surveyed between August 7th and 23rd. Road crossing surveys began at the 0 km mark and progressed north towards the Schaft Creek mine site. Crews walked the proposed road route, classifying all drainages encountered. Sites were classified as “true” streams if they had a continuous, defined channel for at least 100 m. Sites with partial or discontinuous channelization were categorized as “non-classified drainages” (NCDs).

Site surveys were conducted according to Reconnaissance 1:20,000 Fish and Fish Habitat Inventory: Standards and Procedures (RISC, 2001) and the Reconnaissance 1:20,000 Fish and Fish Habitat Inventory: Site Card Field Guide (RISC, 1999). The site survey is a comprehensive biophysical inventory documenting channel measurements, cover inventory, features identification, description of water conditions, morphology characterization, habitat quality assessment, wildlife observations, photography, and fish sampling. Table 2.2-1 presents a summary of physical variables measured at each stream crossing along the proposed road route. The standard survey site length was 100 m: 50 m upstream and downstream of the road crossing.

At sites with average channel width greater than 3.0 m, additional information was gathered to satisfy Transport Canada requirements. For each Transport Canada site, pictures of the road crossing were taken from eight equally spaced sites around a 360° circumference, with the crossing at the centre. Transport Canada photo series were catalogued and indexed for an application regarding the Navigable Waters Act.



Overview Map of the Proposed Schaft Creek Access Road

FIGURE 2.2-1



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**Table 2.2-1
Habitat Variables Measured at Stream Crossing Sites**

Substrate Type	Physical Measurements	Habitat	Cover
Dominant Substrate	Bankfull width (m)	Stream morphology	Deep pool
Subdominant Substrate	Wetted width (m)	Confinement	Boulder
D	Bankfull depth (m)	Hillslope coupling	Instream vegetation
D95	Residual Pool Depth (m)	Stream pattern	Overhanging vegetation
Bank texture	Gradient (%)	Islands/Bars	Undercut bank
	Temperature (°C)		LWD
	Transparency		SWD
	pH		Canopy closure (%)
	Conductivity (uS/cm)		Riparian vegetation

2.2.2 Fish Community

Streams were classified according to the Forest Practices Code of British Columbia Fish-stream Identification Guidebook (BCMOF, 1998). Under this procedure, streams are classified based on mean channel width (m) and fish-bearing status. A summary of stream classes is presented in Table 2.2-2.

Most of the streams along the road route are direct tributaries of Mess Creek, a large, fish-bearing river that has been sampled in previous years; therefore, it is probable that any streams feeding into Mess Creek that provide fish habitat and do not contain barriers to fish migration are fish-bearing as well. In addition, the slopes of the valley walls surrounding Mess Creek frequently exceed 20%, which is considered the limit of fish passability (BCMOF, 1998). Using this reasoning, fish sampling was not conducted at most stream crossings. Instead, habitat was assessed at each crossing. If the habitat assessment did not identify any barriers to fish migration, and habitat quality was assessed as fair to good, the stream was given a default classification of fish-bearing and was not revisited. If the habitat assessment identified marginal to fair habitat quality but no definitive barriers to migration were identified, the stream was given a default classification of fish-bearing and was flagged for further fish sampling. If the stream had definitive barriers to fish migration and was not fed by an upstream lake or pond, it was classified as non-fish-bearing.

Streams that were flagged for fish sampling were revisited in late August or early September, 2007. Beginning at the stream crossing location, the stream was electrofished in a downstream direction until a fish was captured or a definitive barrier was identified. If fish were captured, the stream was given a classification of fish-bearing. If a definitive barrier was identified and no fish were captured above the barrier, the stream was given a classification of non-fish-bearing. If sampling did not result in fish-capture or barrier identification, the default classification of fish-bearing remained. Fish sampling will be conducted a second time during a different season before the classification will be changed.

**Table 2.2-2
Stream Classification Categories**

Classification	Channel Width	Fish Present?
S1	>20.0 m	Y
S2	5.0 to 20.0 m	Y
S3	1.5 to 5.0 m	Y
S4	<1.5 m	Y
S5	>3.0 m	N
S6	<3.0 m	N

From Forest Practices Code of British Columbia Fish-stream Identification Guidebook (BCMOF, 1998)

2.3 Receiving Environment

2.3.1 Streams

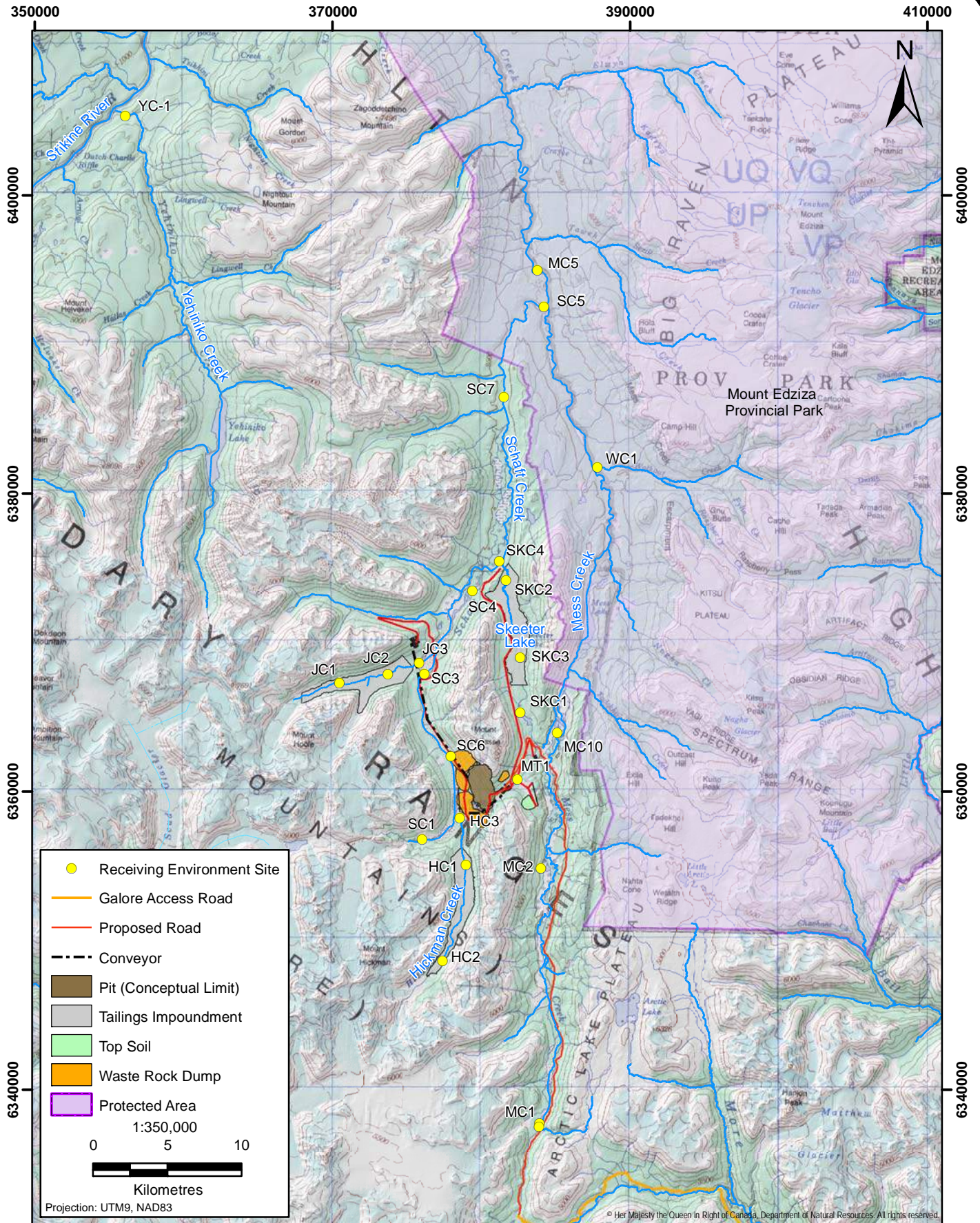
Fish habitat assessments were based on the Reconnaissance (1:20,000) Fish and Fish Habitat Inventory Program (RISC, 2001) and the Fish Habitat Assessment Protocol (Johnston and Slaney, 1996).

An overview fish habitat assessment was conducted at 23 receiving environment reaches (39 sites) within the Hickman, Mess, Schaft, Skeeter, Tailings C Creeks and Stikine River watersheds in June and September 2007. In addition, overview fish habitat assessments were conducted at two reference environment reaches (two sites) within Walkout and Yehiniko Creek watersheds in June and September 2007. Overview fish habitat assessments were conducted in accordance with the *Reconnaissance 1:20,000 Fish and Fish Habitat Inventory Protocol* (RISC, 2001) and the *Reconnaissance 1:20,000 Fish and Fish Habitat Inventory: Site Card Field Guide* (RISC, 1999). Figure 2.3-1 shows the location of the overview fish habitat assessment locations.

Detailed fish habitat assessments were conducted at 19 of the above receiving environment reaches within the Hickman, Mess, Schaft, Skeeter, and Tailings C Creek watersheds in September 2007. Overview fish habitat assessments were conducted in accordance with the *Fish Habitat Assessment Procedures* (Johnston and Slaney, 1996).

Detailed surveys of fish habitat were conducted for nineteen, 200 m-long stream sites. At each site, UTM coordinates were recorded at the beginning and end of each site with a hand-held Global Positioning System (GPS) receiver. Temperature, pH and conductivity were recorded using electronic meters.

Physical features of the stream were assessed within each habitat. Detailed fish habitat assessments (FHAP) were also conducted at sites within the proposed mine site and receiving environment following the methods of Johnston and Slaney (1996). FHAP surveys involved differentiating the stream into separate habitat units such as riffles, cascades, glides and pools, then recording an array of habitat variables for each unit. These features included data on stream morphology, substrate, cover for fish and fish habitat type.



Locations of Stream Sampling Sites in the Schaft Creek Receiving Environment, 2007

FIGURE 2.3-1

Stream habitat within these sites was separated into the following habitat units:

- pool – low velocity area with smooth, non-turbulent flow, low gradient (near 0%), and a concave bottom;
- glide – an area of smooth, non-turbulent flowing water with moderate velocity and gradient less than 4%;
- riffle – an area of turbulent, fast-flowing water with a gradient less than 4%; and,
- cascade – high gradient (>4%) area of turbulent, fast-flowing water.

Data were collected with a measuring tape, meter stick, clinometer (for gradient measurement), or visual estimation. A complete list of the variables measured is presented in Table 2.3-1.

**Table 2.3-1
Fish Habitat Variables Measured at Receiving Environment Sites**

Substrate Type	Physical Measurements	Habitat	Cover
% Sand	Length (m)	Habitat type	% Deep pool
% Gravel	Mean depth (m)	Pool type	% Boulder
% Cobble	Bankfull depth (m)	Pool residual depth (m)	% Instream vegetation
% Boulder	Wetted width (m)	Fish passage barriers	% Overhanging vegetation
% Bedrock	Bankfull width (m)	Bank stability	% Undercut bank
Bank texture	Gradient (%)	Confinement	% LWD
	Bank height (m)	Hillslope coupling	% SWD
	Temperature (°C)	Stream pattern	Canopy closure (%)
	Transparency	Islands/Bars	Riparian vegetation

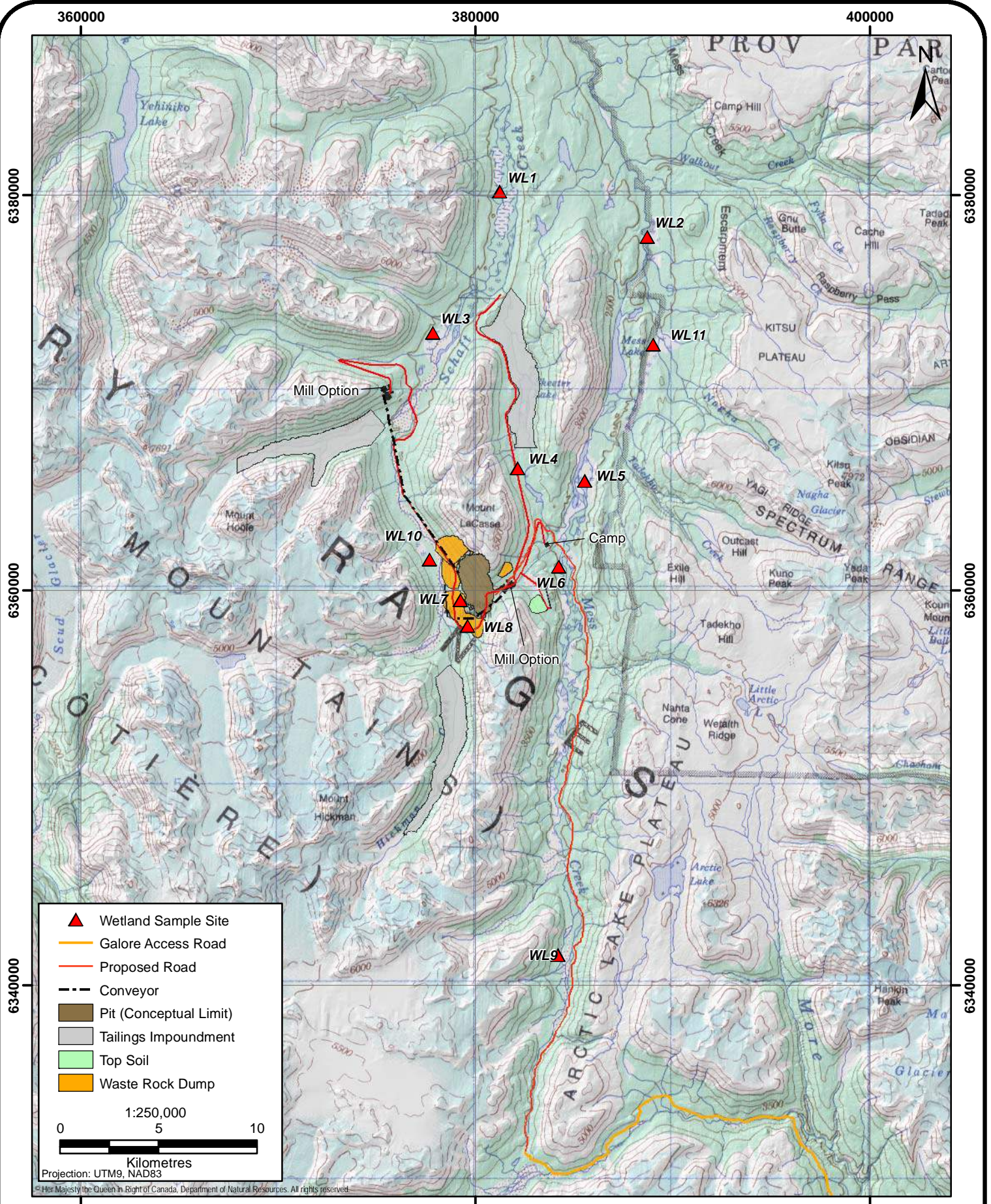
2.3.2 Wetlands

2.3.2.1 Study Design

In 2006, 11 wetlands in the receiving environment were surveyed for fish habitat and community (Figure 2.3-2). Sampling occurred in July and September, with most sites being visited on both occasions to confirm fish presence or absence. The objective of this sampling was to quantify fish habitat in receiving environment wetlands that will be directly impacted, or potentially receive discharge during mine operations.

2.3.2.2 Fish Habitat

Wetland fish habitat was quantified using a combination of transects and point measurements of open-water habitat. Channels within each wetland were mapped using a handheld GPS unit. Average channel width and depth were measured and dominant cover type and amount was estimated every 20 to 30 m. Small ponds within wetlands were surveyed with a single point. The width and length of the ponds were estimated and the amount of cover and dominant cover type were recorded.



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For large ponds, several GPS points were taken around the perimeter so that area estimates could be obtained using geographical information systems (GIS), and the habitat characteristics were noted. In addition, for wetland and lake sites the general quality of habitat for rearing, overwintering, spawning and migration was noted.

2.3.2.3 Fish Community

The fish community of wetlands and lakes were sampled using a combination of electrofishing and minnow traps. Electrofishing was conducted in narrow or shallow channels found in the wetlands, while minnow traps were set in deeper water habitats and ponds within the wetland. Information on fish species richness, size distribution, fish condition and relative abundance was obtained. Captured fish were identified, measured, and weighed before being release back into their habitat. Pelvic fin clips and/or scales were collected from fish for aging purposes.

2.3.3 Lakes

2.3.3.1 Study Design

Seven lakes were surveyed in 2006 as part of the receiving environment studies (Figure 2.3-3). Lakes were chosen for their proximity to mine features and the proposed road, and a reference lake (Lake 4) was added for comparison. Sampling occurred from late August to early September. The objective of the lake survey was to identify important fish rearing and overwintering habitat, and to further determine the extent of fish distribution in the Project area.

2.3.3.2 Fish Habitat

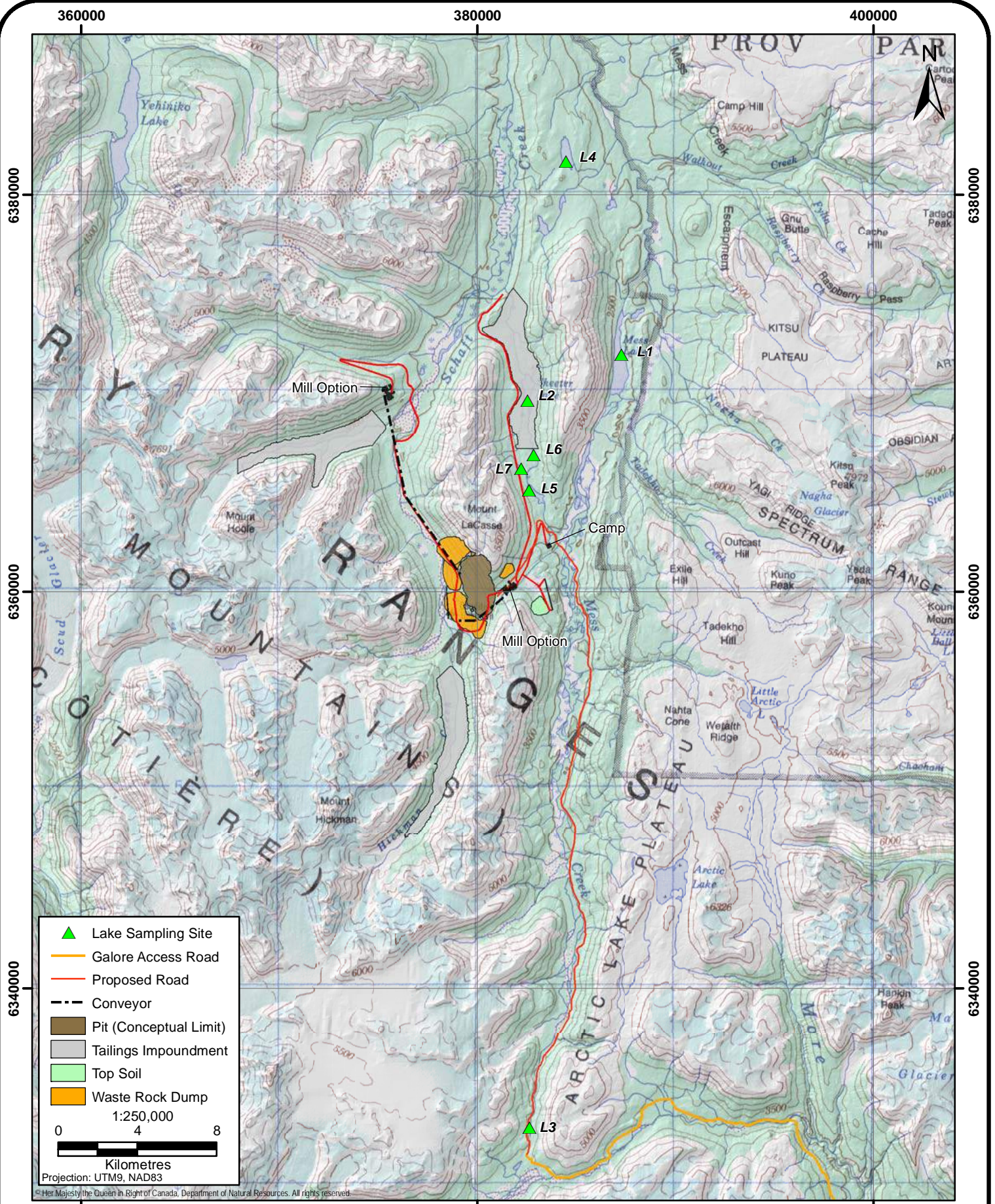
Fish habitat was characterized using a combination of methods. First, an aerial survey was conducted using a helicopter at low altitude. Areas with different substrate types were delineated from the air on a map of the lake or wetland and substrate zones were identified. Once zones of substrate were delineated, emergent vegetation and other cover types were noted and recorded on the map. Spot measurements of depth were also taken, as well as surface temperature, pH and conductivity. Inlets and outlets were mapped, photographed, and described.

2.3.3.3 Fish Community

The experimental gillnets consisted of three panels each (1", 1.5" and 2" stretched mesh size), and measured approximately 183 m². Gillnets were set for one hour to minimize mortality, and if no fish were captured, sets were extended up to 2 hours in duration. The location and set times were recorded.

2.4 Data Analysis

SYSTAT statistics software (SYSTAT, 2004) was used for all statistical analyses. Normal probability plots were employed to test for normality among variables. Data were transformed with natural logarithms to meet assumptions of normality. Analyses of variance (ANOVA) and analyses of covariance (ANCOVA) were used to test for differences among means.



Fish communities were characterized using relative abundance, catch-per-unit-effort (CPUE), length-frequency distributions, weight-length regressions, age-frequency distributions, and condition factor.

Catch-per-unit-effort is an index of relative abundance that can be used to compare fish populations among different areas. It is defined as the number of fish captured per sampling device per unit time. For electrofishing, CPUE was calculated as:

$$(1) \quad CPUE = \frac{\text{number of fish caught}}{100 s}$$

where seconds (s) refers to the amount of time electricity was applied to the water. For minnow trapping, CPUE is calculated as the number of fish captured per trap hour in a standard minnow trap, and for gillnetting, CPUE is calculated as the number of fish captured per 100 m² of gillnet area per hour.

A general linear model (GLM) was used to test for equality in the slopes of the length-weight regressions among receiving environment streams. If the slopes were equal (*i.e.* there was no significant effect of the interaction between length and stream on the weight of fish tested), then analysis of covariance (ANCOVA), with length as the covariate, was used to test for differences in weight (*i.e.* the *y*-intercepts of the regressions) among sites. If the slopes of the regressions were not equal, this indicated that the relationship between length and weight differed among sites and the *y*-intercepts of the regressions could not be compared.

Condition is an index of the relative health of fish. It was calculated for all fish for which length and weight data were obtained, and was based on the following formula from Ricker (1975):

$$(2) \quad \text{Condition} = \frac{\text{weight (g)} \times 10^5}{\text{length (mm)}^3}$$

Von Bertalanffy growth models were fit to length-age data using SigmaPlot's non-linear regression function. The equation for this model is:

$$(3) \quad L_t = L_\infty (1 - e^{(-K(t-t_0)})}$$

where L_t is the length (mm) at age t (years), L_∞ is the length (mm) that the fish would attain if it were allowed to grow for an infinitely long time, K is a growth coefficient (year⁻¹), and t_0 is the age (years) at zero length.

Length-frequency distributions were constructed to visualize the distribution of fish among size classes. Age-frequency distributions were also used to present the distribution of fish by age. These plots are useful in looking for differences in population structure among sites.

Frequency distributions were also used to visualize the distribution of various habitat types throughout the receiving environment.

3. RESULTS AND DISCUSSION

3. Results and Discussion

3.1 Access Corridor

3.1.1 Introduction

All fish habitat site cards are presented in Appendix 3.1-1 and fish sampling cards in Appendix 3.1-2. 1:20,000 scale maps of fish habitat and data are in Appendix 3.1-3 and a summary of site classifications is presented in Appendix 3.1-4.

3.1.2 Stream Crossings

3.1.2.1 Fish Habitat

Site Classification

Figure 3.1-1 provides a summary of site classifications assigned along the proposed access road. Overall, 197 sites were assessed, 131 (66%) conformed to the definition of “stream” according to the Fish Forest Practices Code Fish-Stream Identification Guidebook (BCMOF, 1998). Of the remaining 66 sites, 62 (31%) were classified as NCD, 1 site as “no visible channel” (NVC) and 3 as “fisheries sensitive zones” (FSZ). Fisheries sensitive zones are areas that do not fit under the classifications of stream, lake or wetland, but which do provide important fish habitat at certain times of the year. Examples include backwater areas and flooded depressions.

Channel width and gradient, fish presence and various habitat criteria were used to determine individual stream classes for the 131 sites classified as streams. The majority of sites were classified as non fish-bearing with 99 sites (76%) classed as S6 and four sites (3%) as S5. The remaining 28 (21%) sites were classified as fish-bearing. Unless there was sufficient evidence to confirm a site as non fish-bearing it was defaulted as fish-bearing. Only two sites were confirmed as fish-bearing due to sampling in 2007. Seventeen sites were given a default classification of fish-bearing and nine sites were confirmed as fish-bearing for reasons other than current fish capture. Table 3.1-1 summarizes these reasons.

Channel Measurements

Figure 3.1-2 illustrates percent frequencies for average channel width and bankfull depth for all assessed classified streams. Most streams (71%) possessed an average channel width of less than 2 m, with 43% measuring between one and two meters. Only six sites (4.5%) had a width greater than 10 m, two of which were Mess Creek survey sites. Fish-bearing streams generally have larger average bankfull widths and depths than non-fish bearing streams. Within the fish-bearing streams, the majority of sites (46%) were less than two meters wide; however, 36% were wider than 10 m. Of all streams, 109 sites (83%) had an average bankfull depth of less than 0.5 m, with nearly half (47%) being between 0.25 m and 0.5 m deep. Of the fish-bearing streams, 17 (60%) were less than 0.5 m deep, but 18% were greater than 1 m deep indicating that the fish-bearing streams were generally deeper.

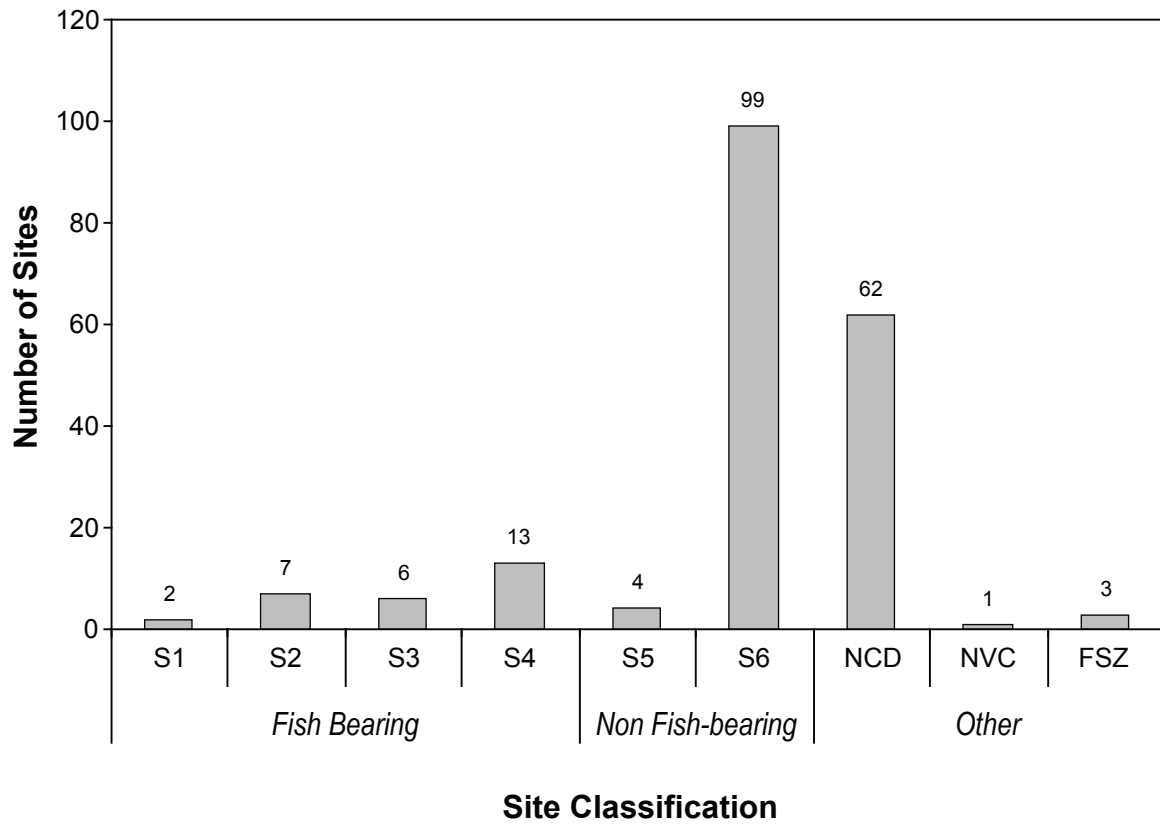


FIGURE 3.1-1



**Table 3.1-1
Summary of Fish-bearing and Default Fish-Bearing Site
Classifications along Proposed Access Road**

Site	ILP	Date	Temperature (°C)	Conductivity (µS/cm)	Turbidity	Electrofishing Seconds	RB	CPUE (fish/100 s)
105	1004	2007/08/25	6	180	C	229	NFC	0
139	1038	2007/08/21	7	250	C	157	NFC	0
141	1040	2007/08/21	-	-	C	31	NFC	0
143	1042	2007/08/21	-	-	C	87	NFC	0
153	1052	2007/08/21	6	210	C	31	NFC	0
159	1058	2007/08/14	5	378	C	366	NFC	0
161	1060	2007/08/14	5	424	C	198	NFC	0
165	1064	2007/08/14	6.5	387	C	219	1	0.46
194	1093	2007/08/25	5	180	C	86	NFC	0
195	1094	2007/08/26	5	170	C	664	NFC	0
204	1103	2007/08/26	6	190	C	160	NFC	0
207	1106	2007/08/27	6	120	C	180	NFC	0
211	1110	2007/08/27	6.5	150	C	65	NFC	0
233	1130	2007/08/27	6.5	150	C	260	1	0.38
237	1133	2007/08/27	5	100	C	98	NFC	0
239	1135	2007/08/27	5.5	110	C	18	NFC	0
300	2000	2007/08/10	4	50	C	540	NFC	0
312	1111	2007/08/27	6	160	C	37	NFC	0

RB = rainbow trout
 CPUE = catch per unit effort
 Dashes indicate no data available

Gradient

Figure 3.1-3 illustrates the average gradient in all assessed classified streams. A total of 111 streams (85%) had gradients lower than 40%. Of the 28 fish-bearing streams, 55% had gradients between 10 and 20%. Twelve sites were found to have gradients greater than 20%, which is considered to be a potential barrier to fish migration (BCMOF, 1998). For various reasons, such as good step-pool morphology, these sites were given default classifications of fish-bearing because sufficient sampling was not undertaken to confirm non-fish bearing status. Further sampling of these streams will be conducted in 2008 in order to confirm the status of these streams. The 11 sites that were confirmed as being fish-bearing all had gradients between 10 and 20%.

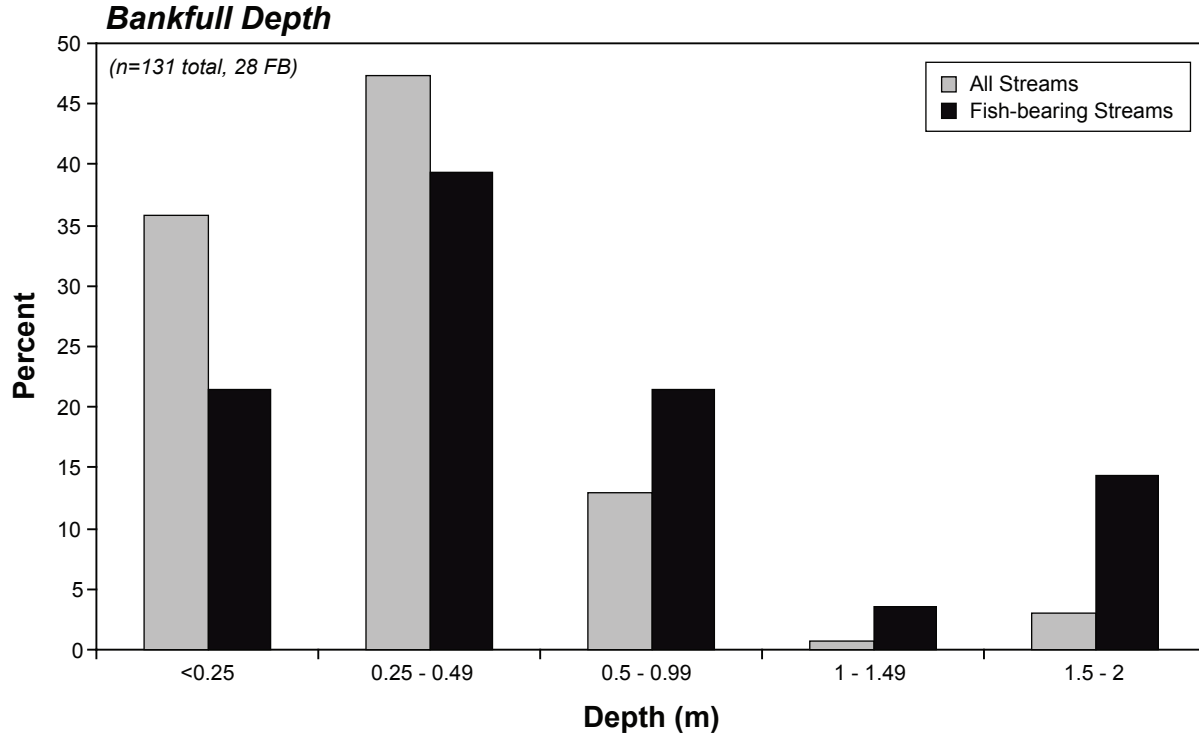
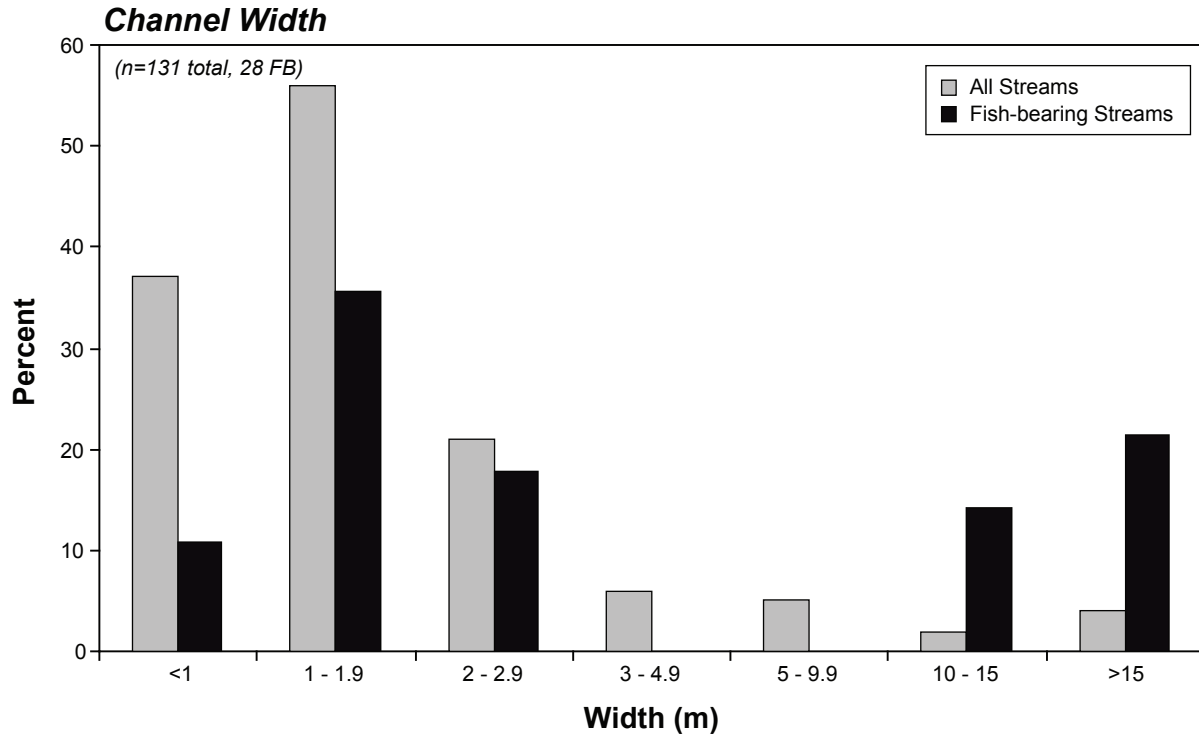


FIGURE 3.1-2



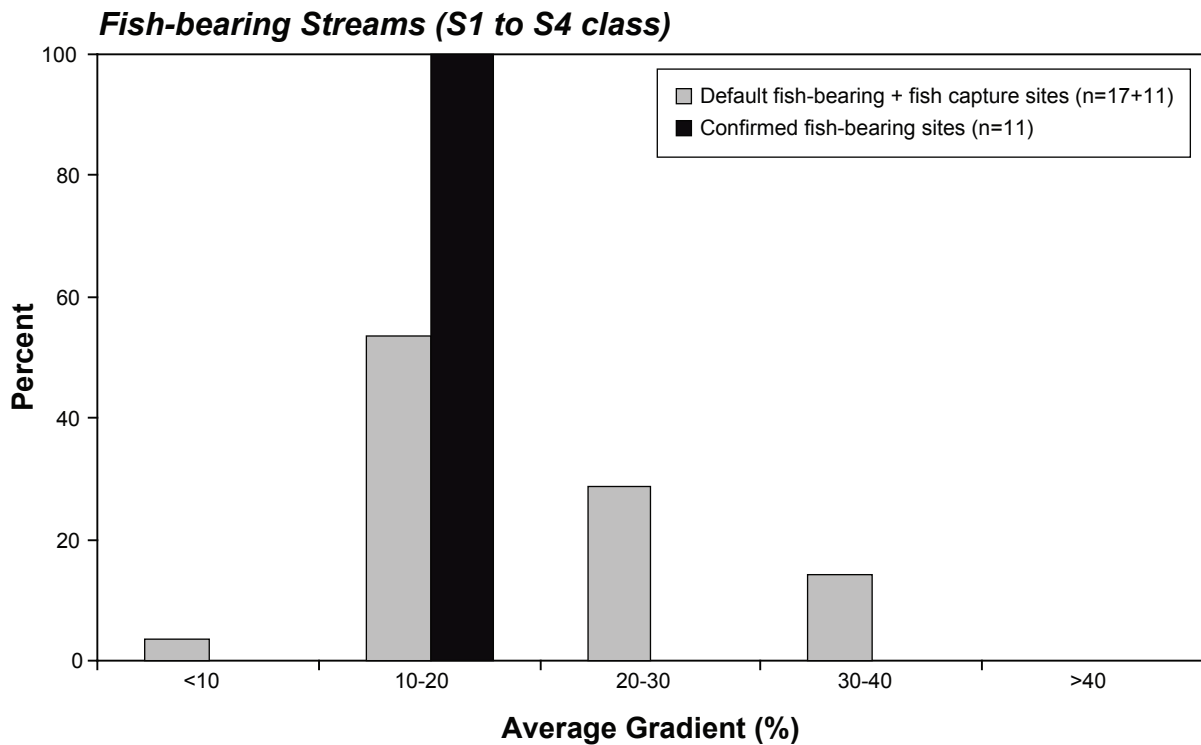
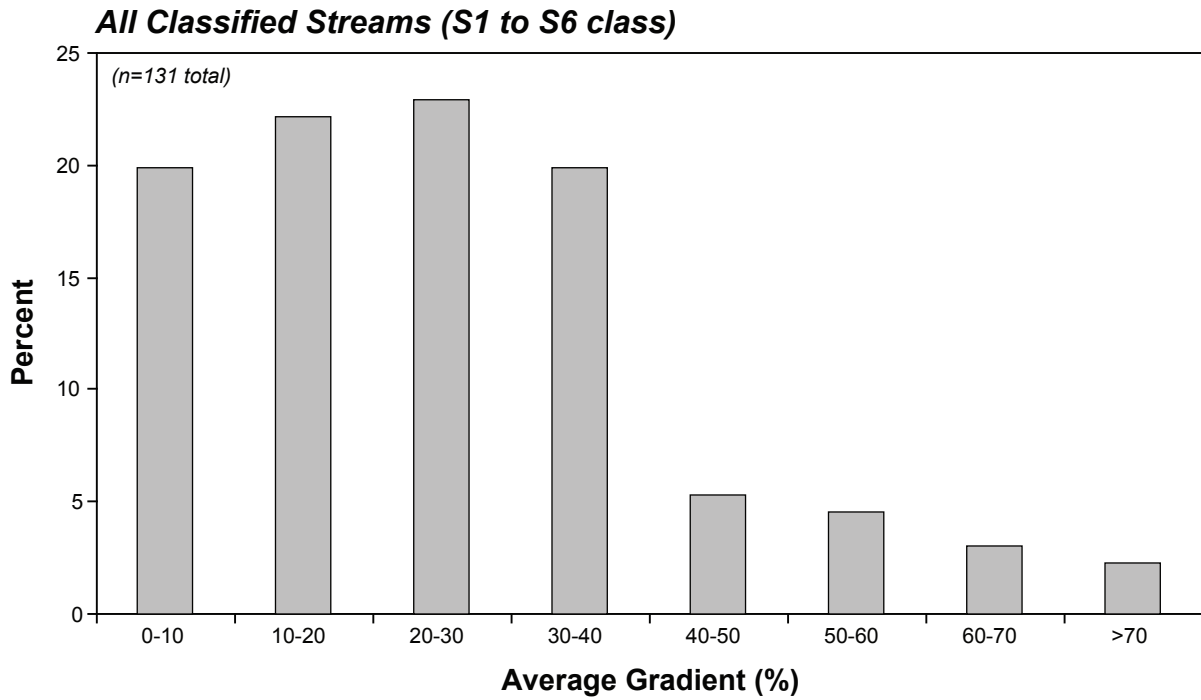


FIGURE 3.1-3



Navigability

Streams with an average bankfull width greater than 3 m are considered to be potentially navigable and construction over them is governed by the Navigable Waters Protection Act and Regulations administered by Transport Canada. In the study area, 17 streams had bankfull widths greater than 3 m. At these sites additional photos were taken to assist in determining if any streams need to be assessed further for navigability. Appendix 3.1-5 presents additional information and photos of these sites.

Channel Morphology and Disturbance

Channel morphology is determined by in part by gradient, substrate composition and stream discharge levels. Figure 3.1-4 illustrates the channel morphologies which occurred in the study area. Streams in the study area showed all morphologies, although only the two Mess Creek sites exhibited large channel morphology. The remaining 129 sites were distributed evenly between step-pool, cascade-pool and riffle-pool morphologies.

Stream substrate was classified according to size classes (*i.e.*, fines, gravel, cobble, *etc.*) and recorded as either dominant (most common) or sub-dominant (second most common). Figure 3.1-4 shows the distribution of substrate types in the assessed streams. Dominant and sub-dominant substrates showed similar patterns. Gravel was the most common substrate type, dominating 44% of sites. An additional 43% of sites had gravel as a sub-dominant substrate. Cobble was the next most common substrate type, with 32% of sites having it as the dominant substrate and 24% of sites as the sub-dominant substrate. Fines were the next most common substrate, followed by boulder. Only one site was recorded with bedrock as a sub-dominant substrate.

Channel disturbances can affect the quality and quantity of available fish habitat. Streams in the study area exhibited a wide range of disturbances (Figure 3.1-5). The four most common disturbances were “multiple channels/braids” occurring at 11 sites (8.4%), “eroded banks” at 9 sites (6.9%), “excessive small woody debris” at 8 sites (6%) and “abandoned channel” at 7 sites (5.3%). These indicators are consistent with flooding and the resulting increased current, which could cause major impacts to fish habitat during peak flow. Excessive small woody debris is also consistent with avalanche debris, which was common in streams that flowed down avalanche chutes.

Channel pattern is the path of the channel banks in relation to a straight line. Figure 3.1-5 shows the relative frequency of different channel patterns within the study area. Straight and sinuous patterns occurred at almost the same frequency at 49 (38%) and 48 (37%) sites respectively, while irregular wandering channels occurred at 26 sites (20%). Regular meanders, tortuous meanders and irregular meanders were rare, occurring at only 6 sites (4.7%).

Confinement is defined as the ability of the channel to migrate laterally within a valley between the surrounding slopes. The majority of sites (39.7%) were completely unconfined and able to frequently move laterally (Figure 3.1-6).

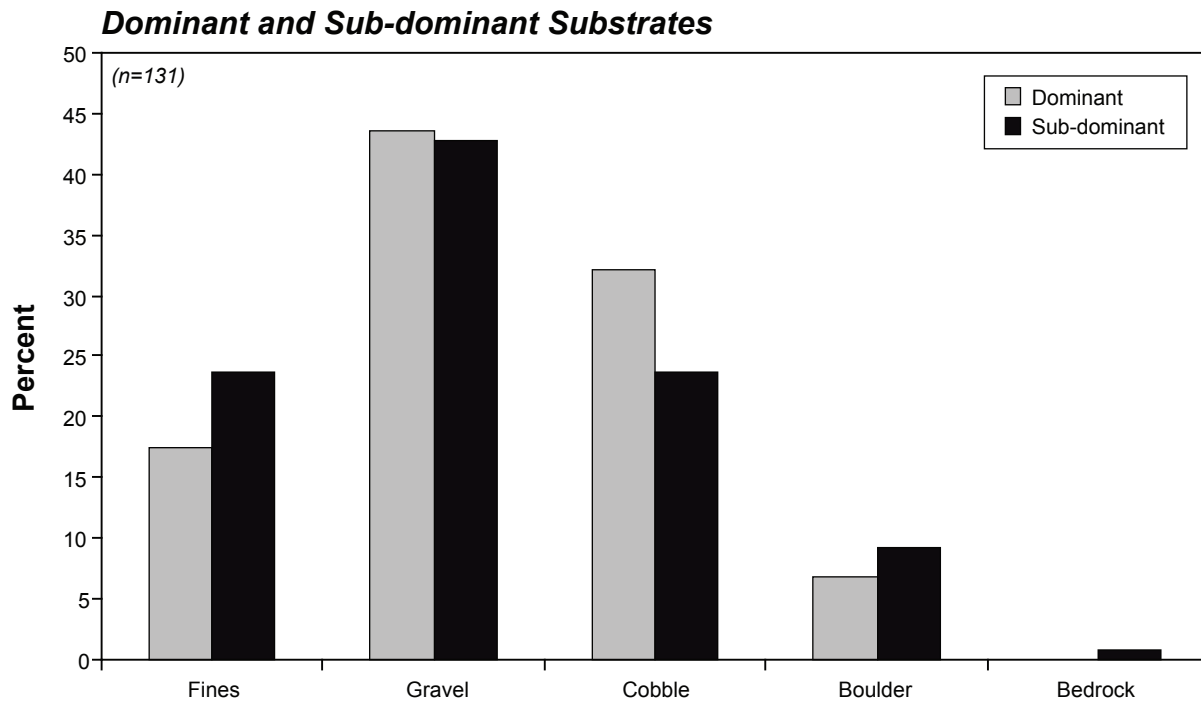
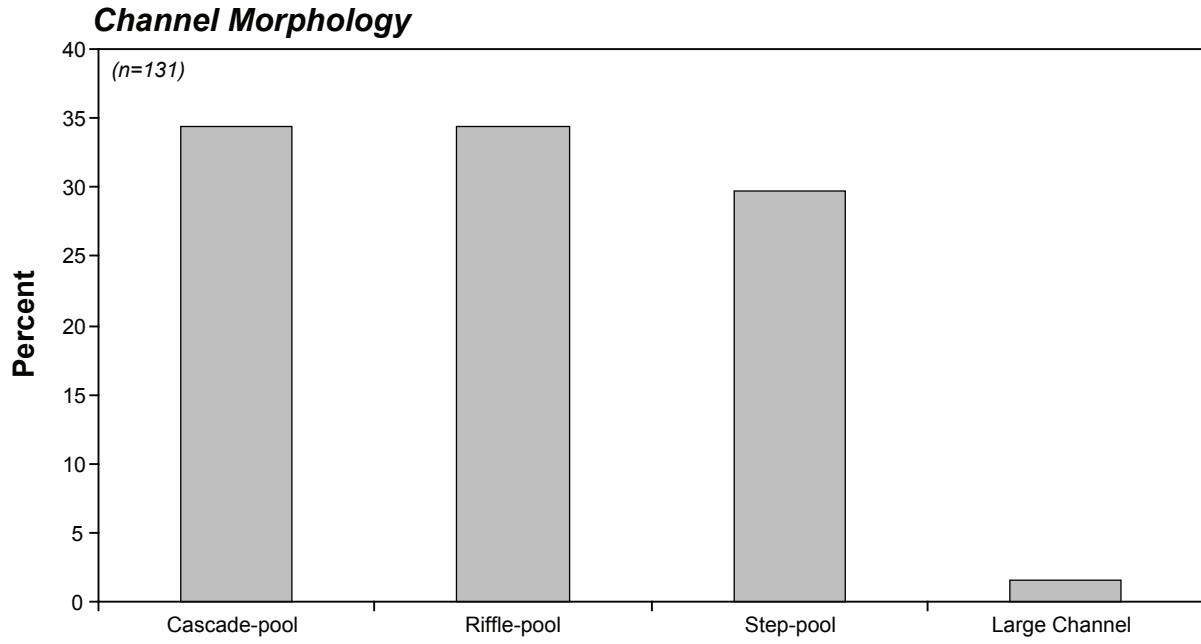


FIGURE 3.1-4



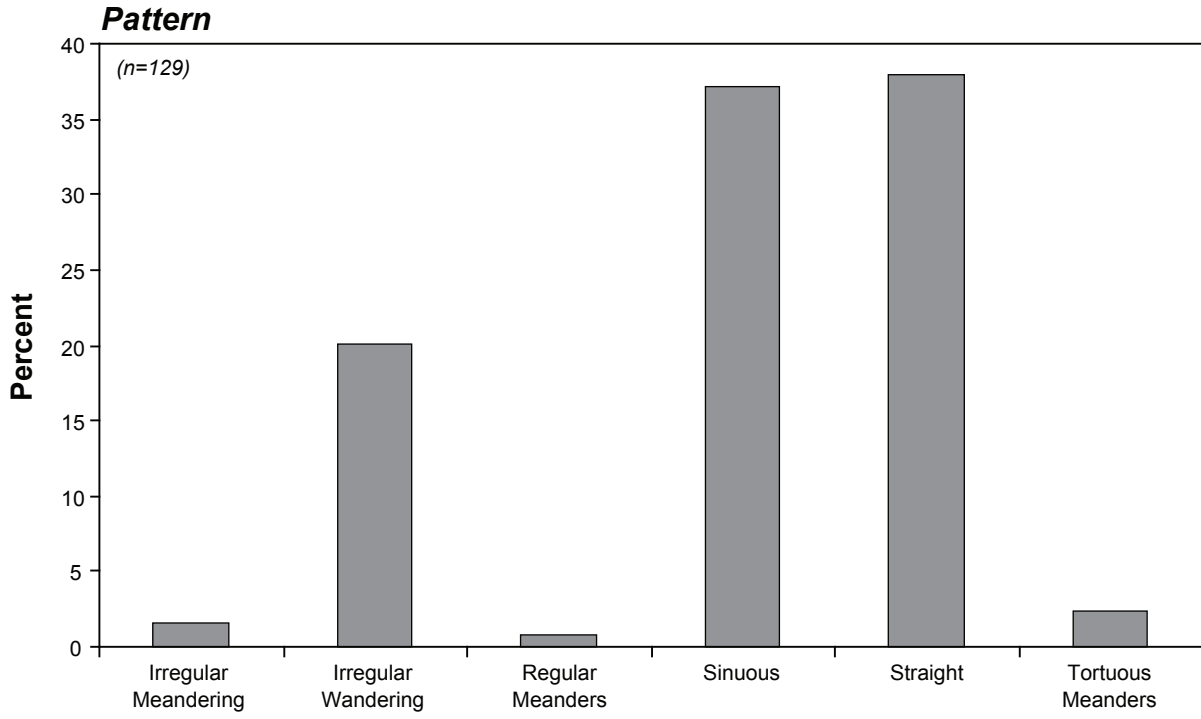
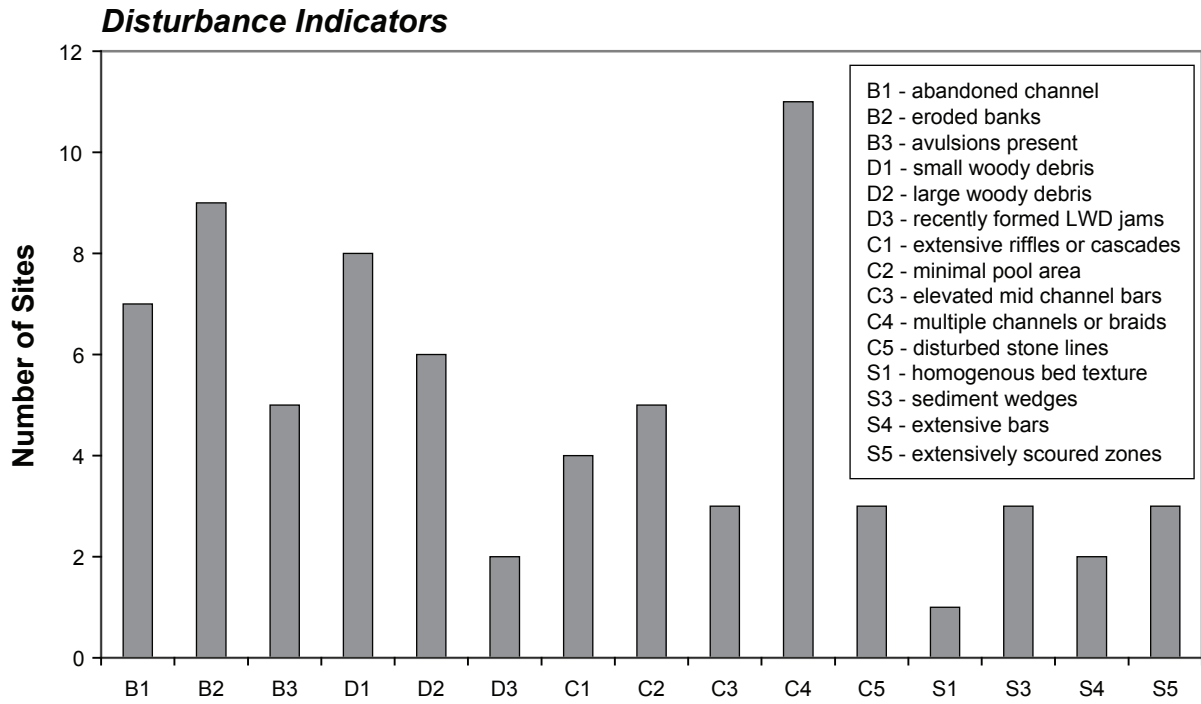


FIGURE 3.1-5



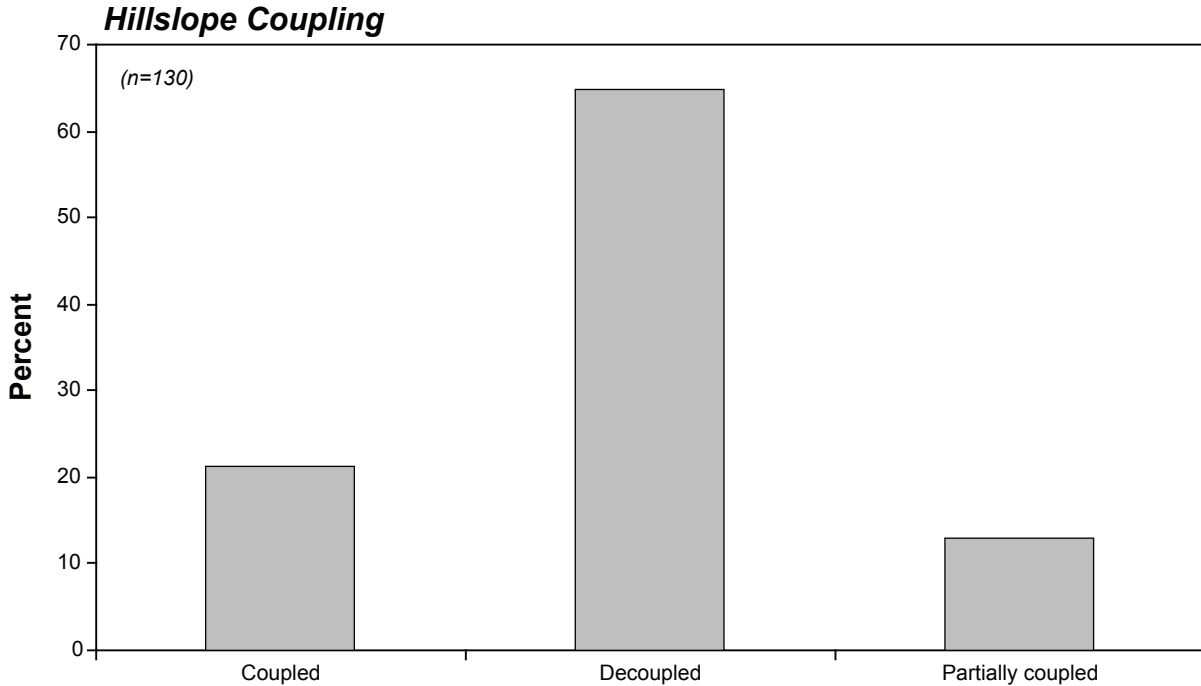
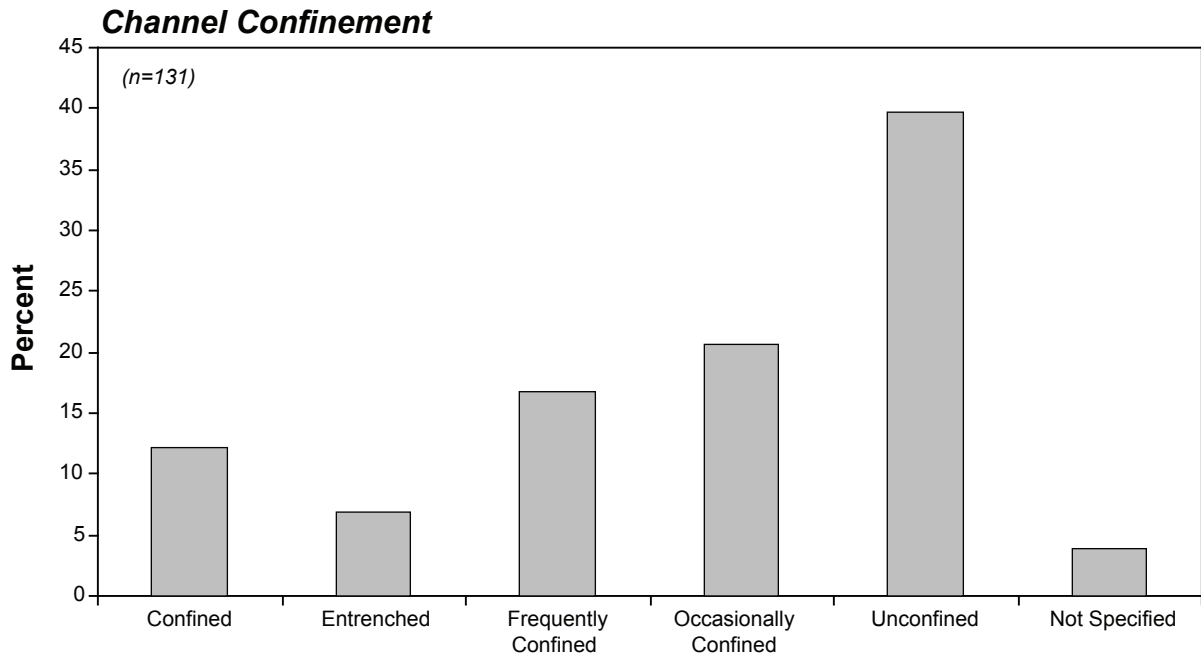


FIGURE 3.1-6



Some degree of confinement was exhibited at 49.6% of sites, with 16 sites (12%) being fully confined, 22 sites (17%) frequently confined and 27 sites (21%) occasionally confined. In addition, nine sites were entrenched (occurring in canyons), and five sites were recorded as “not applicable” as they were located on alluvial fans.

Hillslope coupling is the ability of mobilized sediment to enter the stream channel. Of the 131 sites, 85 (65%) were decoupled (Figure 3.1-6). The remaining sites were either coupled (28 sites (21%)) or partially coupled (17 sites (13%)). The strong dominance of decoupled sites means that the risk of sediment entering these streams from slope failures is very low, and indicates that much of the habitat along the proposed road route is stable.

Water Quality

Figure 3.1-7 shows average stream temperature and conductivity in streams along the proposed road route. Temperatures ranged from 0°C to 12°C, most sites (53%) were between 4°C and 8°C. Sampling was conducted in August and October which is reflected in the wide range of temperatures, with the majority near the median. The study area showed a wide range of conductivity from 10 to 480 µS/cm. Most sites (69%) ranged between 100 and 300 µS/cm, although 20 sites (17%) had conductivity greater than 300 µS/cm.

Fish Habitat Quality

Cover is a very important aspect of fish habitat because it provides protection from predators and from the elements, influencing habitat quality at every life stage. Cover was divided into seven types including small woody debris, large woody debris, boulder/cobble, undercut banks, deep pools, overhanging vegetation and in-stream vegetation. Cover was abundant at 87 sites (66%), followed by equal distributions of low and moderate cover, at 16% of sites for each (Figure 3.1-8). Only one site had no cover.

Cover type was recorded as dominant and sub-dominant. Sites could only have one type listed as dominant, but several cover types could be sub-dominant if they were present in relatively equal amounts. Figure 3.1-8 illustrates the occurrences of dominant and sub-dominant cover types. Overhanging vegetation occurred most frequently, dominating 64 sites (48%) and occurring as a sub-dominant cover type at 37 sites (17%). Small woody debris, large woody debris, boulder/cobble and undercut banks were all recorded frequently; however, deep pools and in-stream vegetation were rare as cover types.

Functional large woody debris (LWD) is that which is attached or embedded in the streambed and directly influences channel morphology by affecting sediment deposition. Functional LWD often creates habitat units such as step-pools, which provide refuge or resting habitat for fish. LWD abundance was distributed fairly evenly among the three classes with 49 sites (42%) having “few”, 37 sites (32%) having “none” and 30 sites (26%) having “abundant” LWD (Figure 3.1-9). Of the 79 sites with functional LWD present, the distribution of LWD in the channel was even at 69 sites and clumped at 10 sites. Clumped distribution may be indicative of large floods or debris flows which deposit LWD in jams.

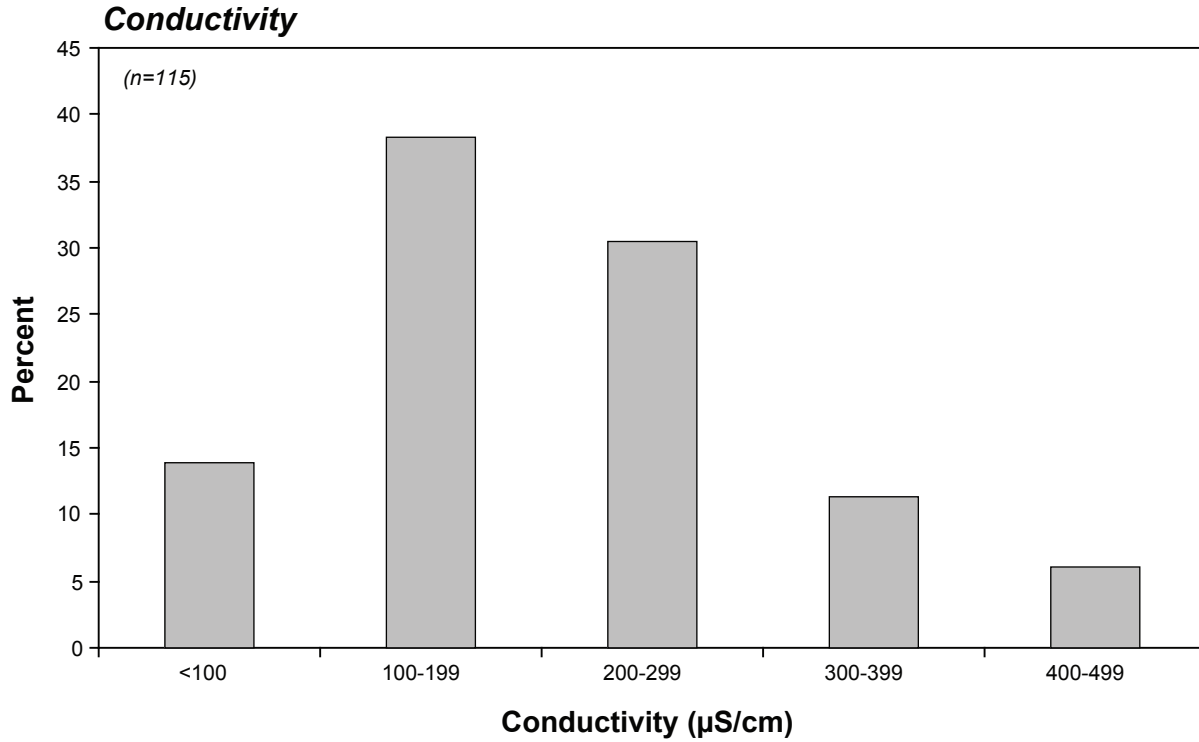
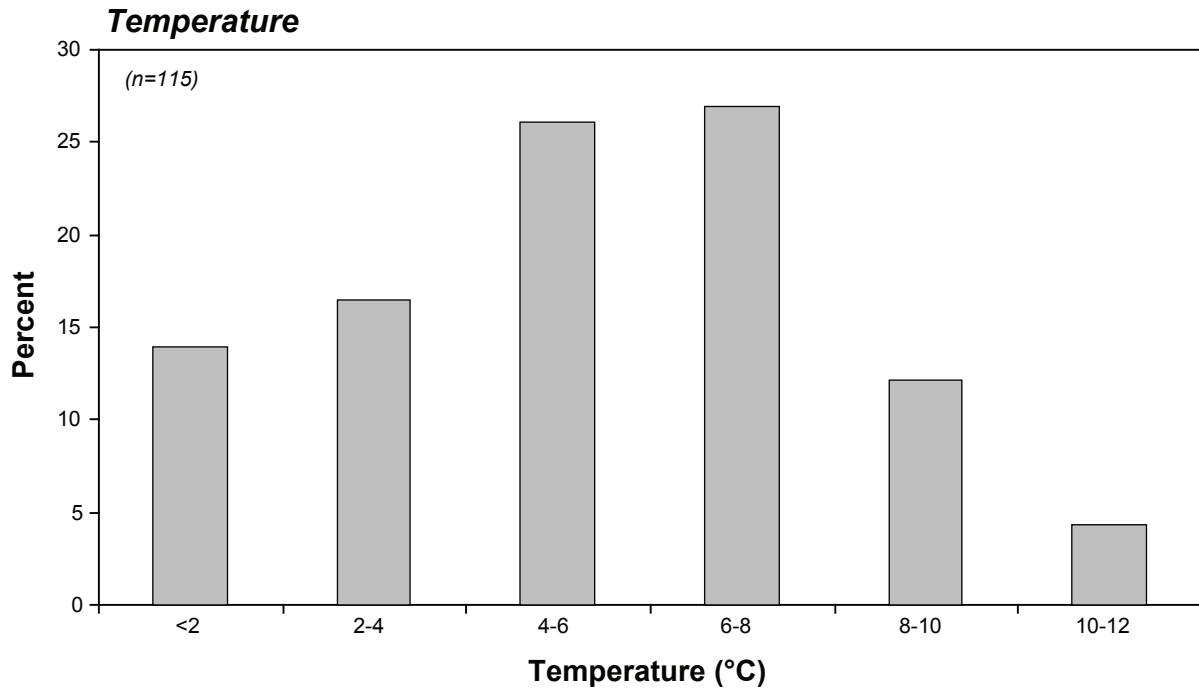


FIGURE 3.1-7



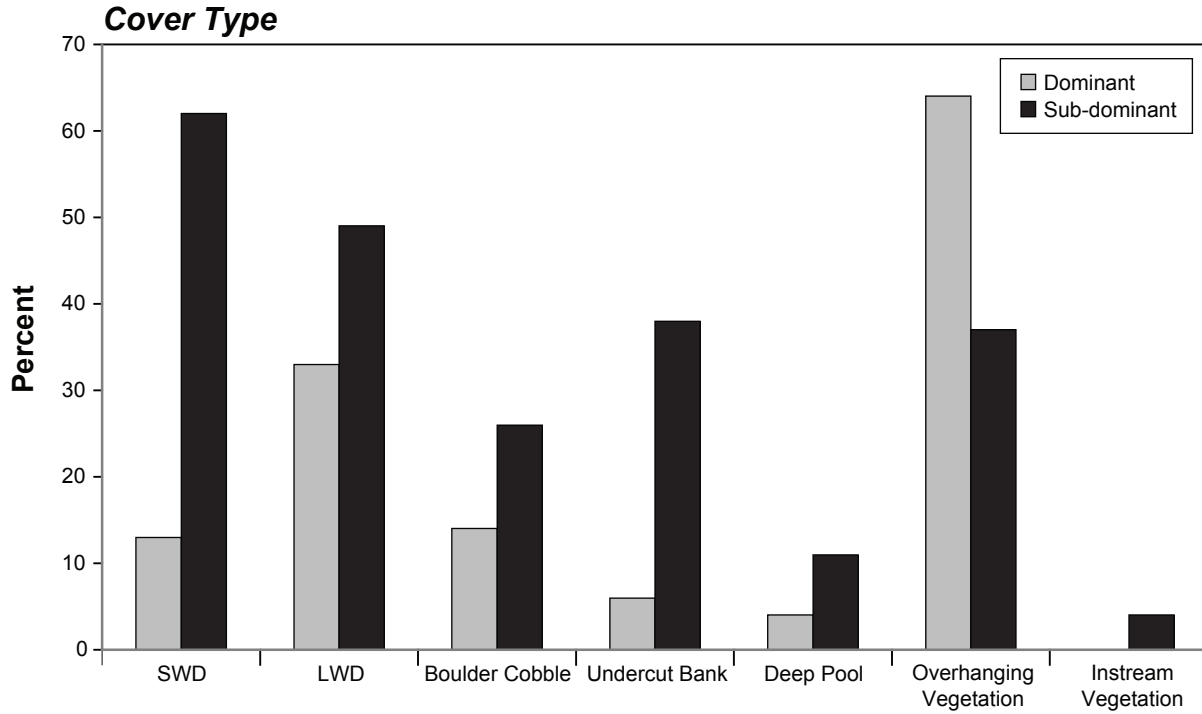
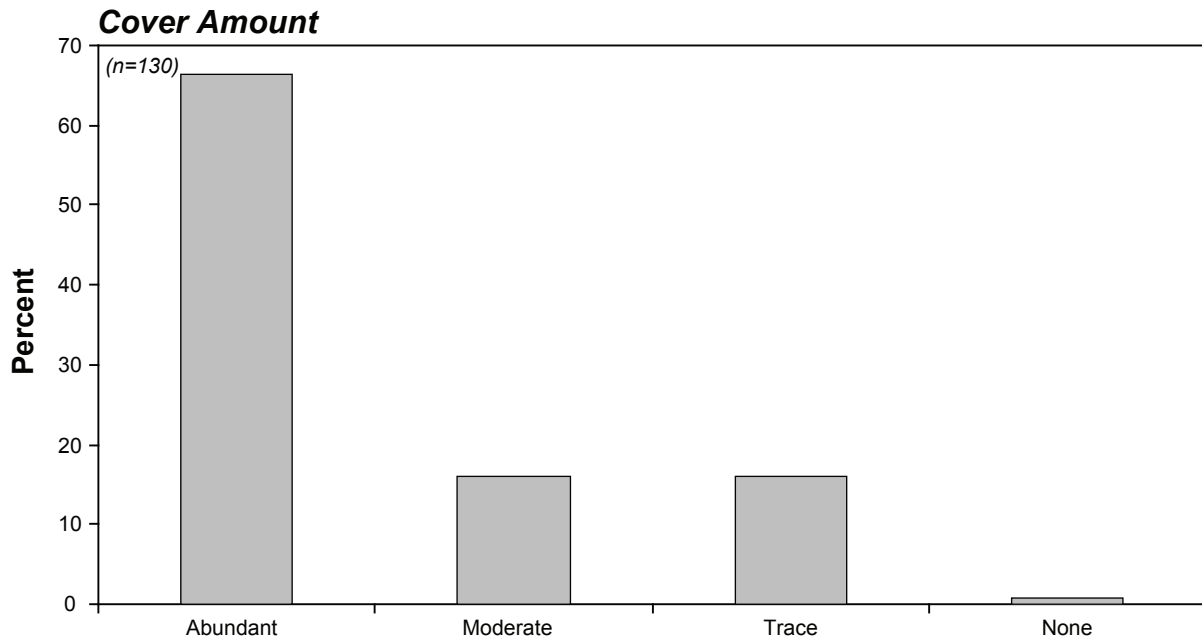


FIGURE 3.1-8



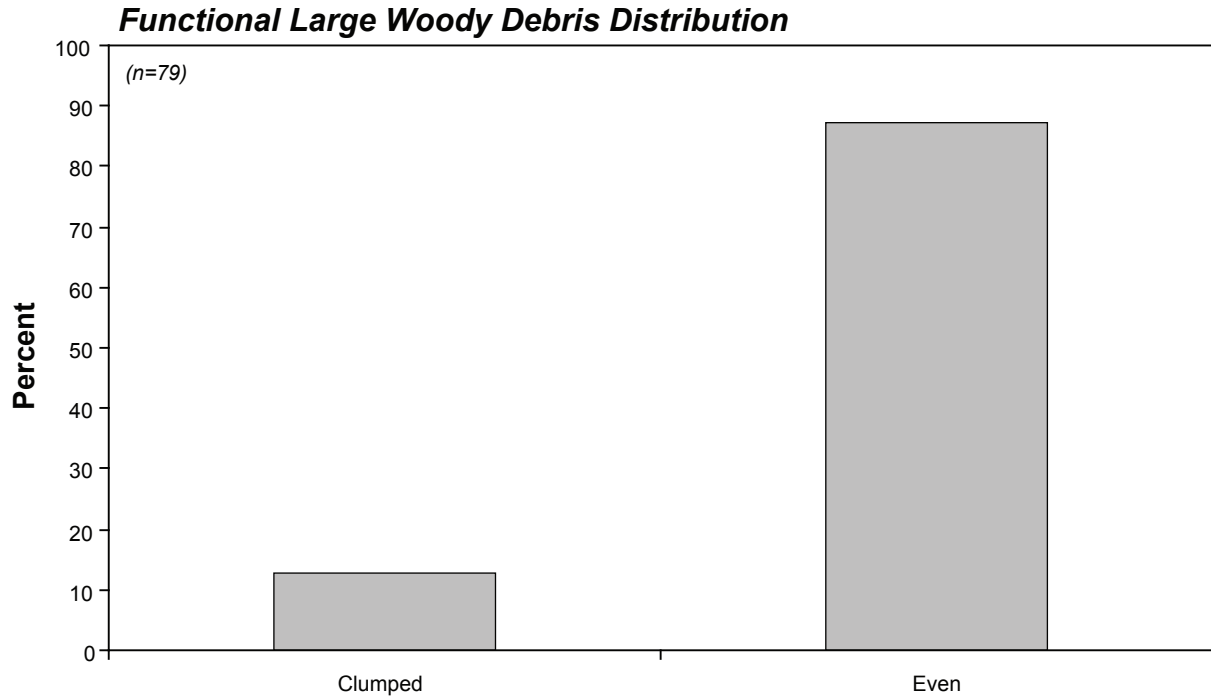
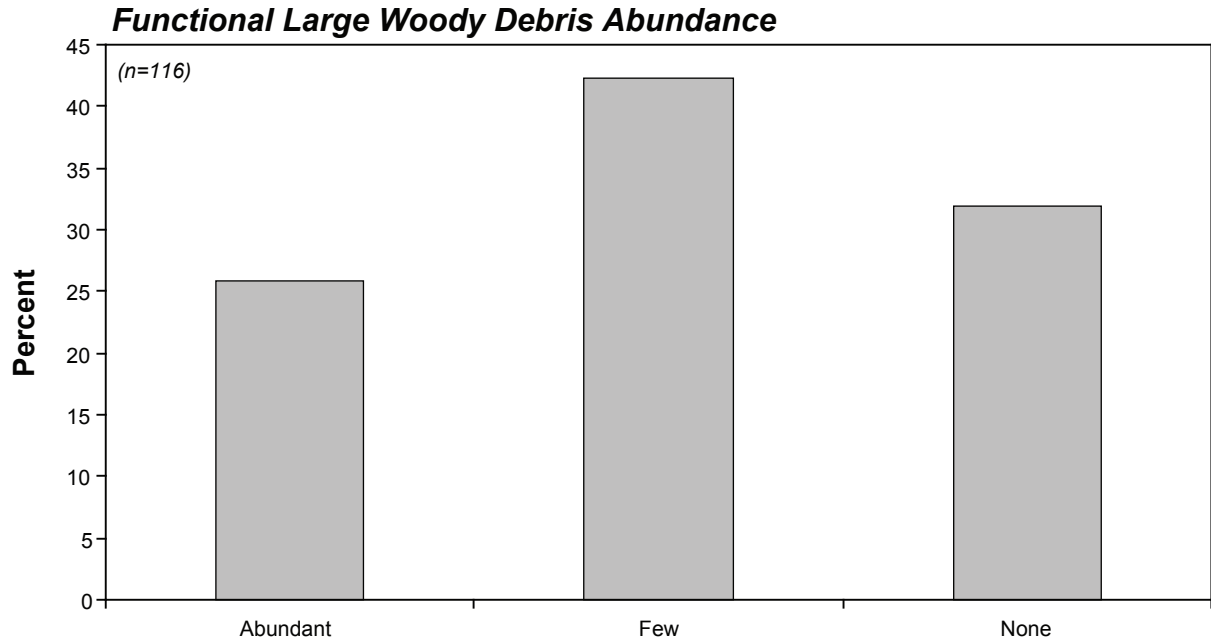


FIGURE 3.1-9



Stream bank shape directly affects the amount of cover, sedimentation and current velocity in streams. There are four categories for shape: undercut, vertical (45° to 90° gradient), sloping (less than 45° gradient) and overhanging (where the top of the bank extends out over a dry portion of the streambed). Left and right bank shapes were similar with approximately 50% of sites showing sloped banks, 35% showing vertical banks and 15% showing undercut banks (Figure 3.1-10). No streams contained overhanging banks. Bank texture is a description of the predominant substrate forming the streams banks. It is recorded as the one or two most dominant size classes of substrate, from fines to bedrock. Texture was also nearly the same for both banks, with the majority of streams (79%) having fines as the predominant size class and 39% having gravel (Figure 3.1-10). Only four sites had bedrock recorded as the predominant size class.

Riparian vegetation provides cover and shade to fish habitat, and may vary significantly depending on the type of vegetation and the season. Vegetation type was assessed on both banks of the streams. Coniferous forests occurred most frequently at approximately 62% of sites, with mixed forest as the next most common at 21% of sites (Figure 3.1-11). Shrub, deciduous forest and wetland surrounded the remaining sites. The stage of the riparian vegetation was also assessed and classified according to maturity and structure of the dominant cover. The majority of sites, approximately 70%, exhibited mature forest, while the remaining sites were distributed evenly among the remaining five categories (Figure 3.1-11).

3.1.2.2 Fish Community

Table 3.1-2 presents fish catch data, effort and CPUE for all fish sampling locations along the proposed road route. Because of the low number of samples, no summary statistics could be compiled on fish communities along the road route.

The fish community in the study area was assessed using electrofishing gear, and biological data (e.g., length, weight, age) were obtained from all fish caught. A total of 3,426 seconds of electrofishing effort was expended over 18 sites. Two rainbow trout (*Oncorhynchus mykiss*) were caught at sites 165 and 233, both juveniles. The fish from site 165 was 132 mm long, weighed 33.9 g and was aged to be two years old. The site 233 fish was 132 mm long and weighed 33.6 g. This fish could not be aged due to the similarity in length and weight to the site 165 fish; it was likely two years as well. The small number of fish is due to the lack of available fish habitat and the low sampling effort. Of the 197 sites only 28 were actually considered capable of supporting fish populations. Sampling was concentrated among sites where fish presence was questionable due to high gradients or poor habitat quality; whereas, sites known to provide fish habitat and sites with low gradients and good quality habitat were not sampled.

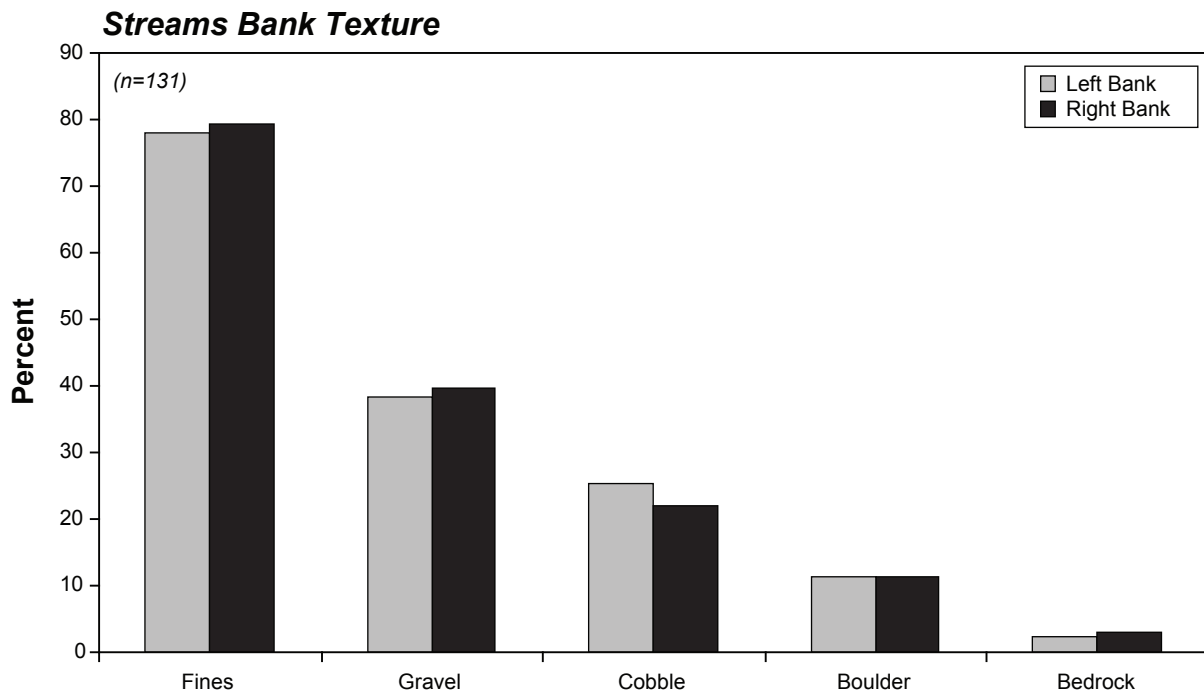
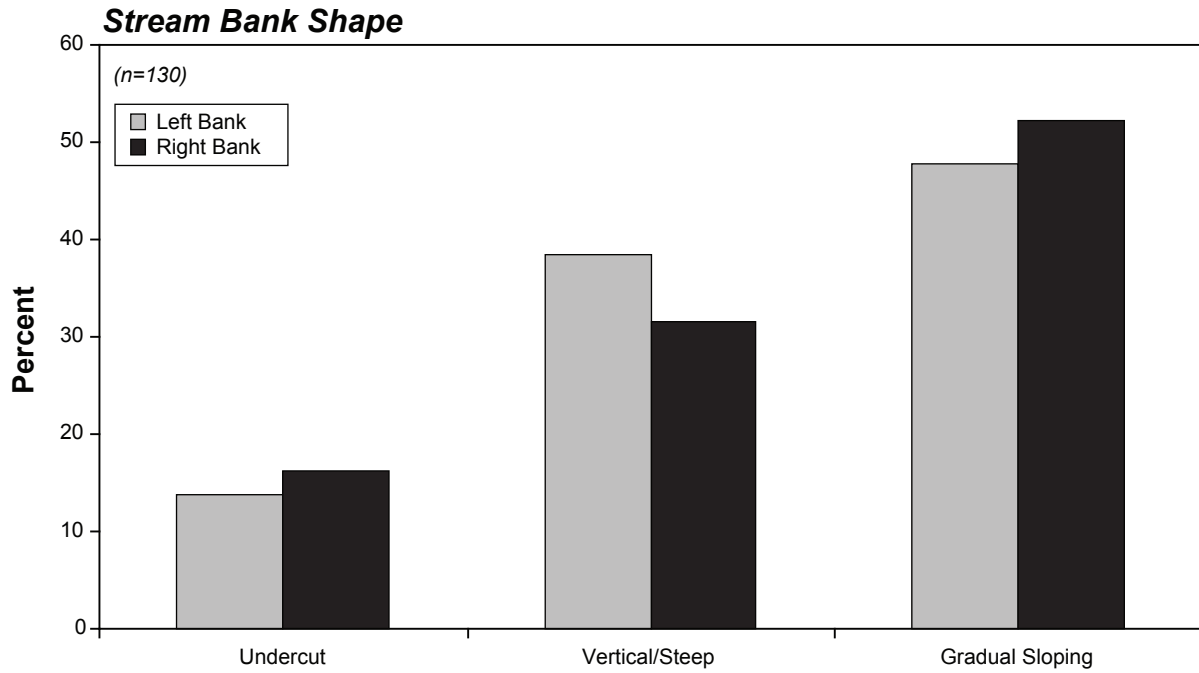


FIGURE 3.1-10



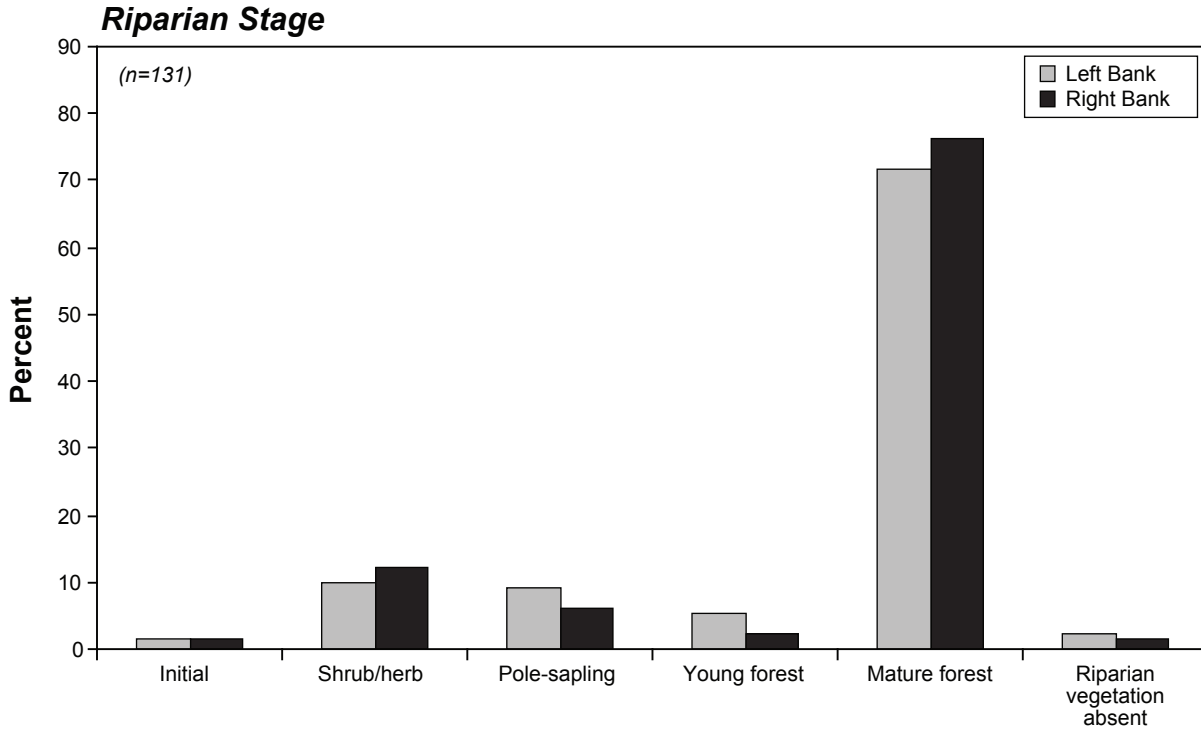
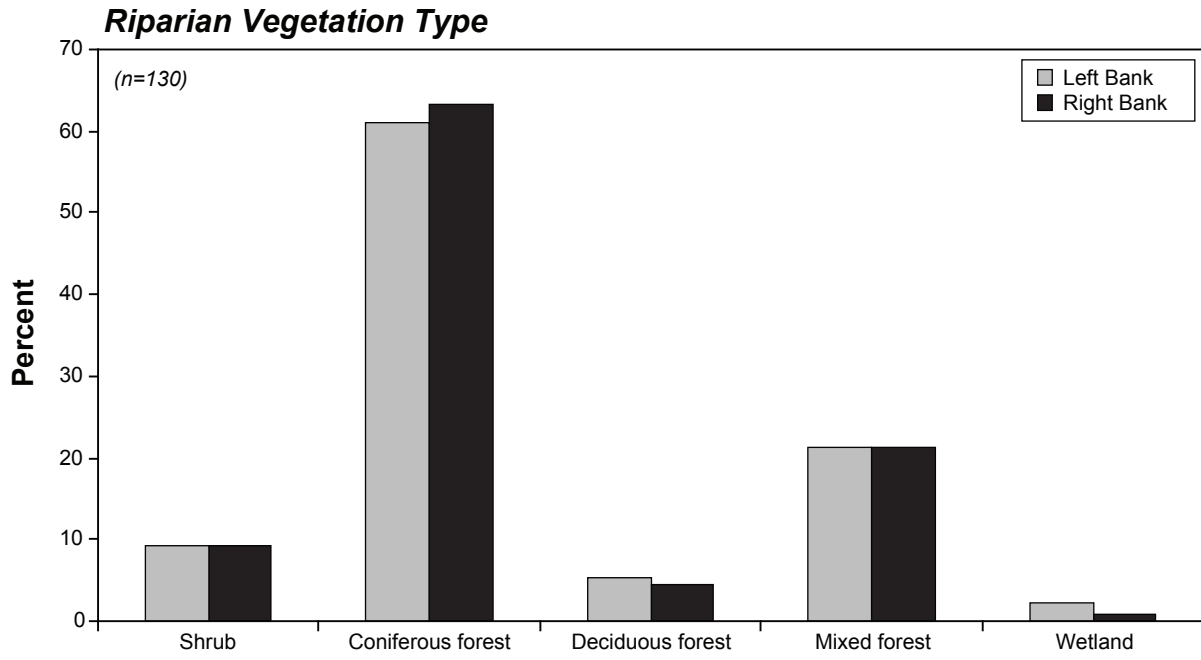


FIGURE 3.1-11



**Table 3.1-2
Electrofishing Effort, Catch and CPUE of Streams along the Proposed
Road Route**

Site	ILP	Date	Temperature	Conductivity	Turbidity	EF Seconds	RB	CPUE (fish/100 sec)
105	1004	2007/08/25	6	180	C	229	NFC	0
139	1038	2007/08/21	7	250	C	157	NFC	0
141	1040	2007/08/21	-	-	C	31	NFC	0
143	1042	2007/08/21	-	-	C	87	NFC	0
153	1052	2007/08/21	6	210	C	31	NFC	0
159	1058	2007/08/14	5	378	C	366	NFC	0
161	1060	2007/08/14	5	424	C	198	NFC	0
165	1064	2007/08/14	6.5	387	C	219	1	0.46
194	1093	2007/08/25	5	180	C	86	NFC	0
195	1094	2007/08/26	5	170	C	664	NFC	0
204	1103	2007/08/26	6	190	C	160	NFC	0
207	1106	2007/08/27	6	120	C	180	NFC	0
211	1110	2007/08/27	6.5	150	C	65	NFC	0
233	1130	2007/08/27	6.5	150	C	260	1	0.38
237	1133	2007/08/27	5	100	C	98	NFC	0
239	1135	2007/08/27	5.5	110	C	18	NFC	0
300	2000	2007/08/10	4	50	C	540	NFC	0
312	1111	2007/08/27	6	160	C	37	NFC	0

RB = rainbow trout

CPUE = catch per unit effort

Dashes indicate no data available

3.2 Receiving Environment

3.2.1 Streams

3.2.1.1 Fish Habitat

Stream Setting

The receiving environment streams were separated into six distinct watersheds for data analysis and comparison. The watersheds are as follows: Hickman, Mess, Schaft, Stikine, Skeeter and Tailings. Mess Creek is a major tributary of the Stikine River and flows northwards from its headwaters near the Spectrum Range to its confluence with the Stikine River near Telegraph Creek. Schaft Creek is a tributary of Mess Creek, and flows northeast from its headwaters near Mount Hickman to its confluence with Mess Creek, which is located approximately 33 km south of the Stikine River. The Skeeter Creek watershed is located in a small valley between Schaft Creek and Mess Creek near the proposed Schaft Creek Project location. A height of land divides the watershed such that the northern half (which includes Skeeter Lake) flows north to Schaft Creek, while the southern half (which includes an unnamed lake nicknamed “Start Lake”) flows south to Mess Creek. Hickman Creek is a tributary of Schaft Creek that is located south of the Schaft Creek Project location. The confluence of Hickman Creek and Schaft Creek is located approximately 0.5 km south of Schaft Creek camp. It is also an option for a tailings facility

(Tailings Option “B”). Tailings C Creek is a tributary of Schaft Creek that originates near Mount Hoole and flows east, joining Schaft Creek approximately 10 km downstream of the Schaft Creek camp. It is also an option for a tailings facility (Tailings Option “C”).

The reference environment streams were separated into two distinct watersheds for data analysis and comparison. The watersheds are as follows: Walkout and Yehiniko. Walkout Creek arises on the Edziza Plateau and flows west, emptying into Mess Creek approximately 8 km downstream from Mess Lake. Yehiniko Creek is a tributary of the Stikine River, and is located west of Mess Creek in the next major watershed. The sampling site on Yehiniko Creek is located near the mouth.

Barriers to Fish Migration

A number of confirmed and suspected barriers to fish migration are present in the Schaft Creek Project area. These barriers limit the distribution of fish within the Mess Creek watershed. One of the most important barriers in the Project area is a moderate-sized waterfall on Mess Creek approximately 11 km upstream from the Stikine River (Plate 3.2-1). FishWizard (Freshwater Fisheries Society of BC, 2005) lists the waterfall as being 6 m high and a total block to salmon; however, the capture of a suspected Chinook salmon smolt (Plate 3.2-2) in Mess Lake has raised uncertainty about the passability of this barrier. It may be possible that the waterfall becomes passable during certain times of the year when flows are lower.

A second potential barrier is located on Mess Creek at the outlet of Mess Lake. This short canyon features fast, turbulent flow and may limit fish movement between the upstream and downstream areas of Mess Creek. It does not appear to be a total block to migration since fish are present on both sides of the barrier; however, it is not known if fish are able to freely pass through the canyon at all times of the year.

A cascade and waterfall are present in the lower reaches of Skeeter Creek, preventing fish migration into the Skeeter Valley and Skeeter Lake (Plate 3.2-3). The waterfall on this stream measures at least 30 m high and flows directly into a steep cascade that features several 1 to 2 m drops. Flow through this section is very turbulent, even at low flows. No fish have been captured upstream of this barrier, despite numerous sampling attempts in both stream and lake habitats, and overnight gillnet sets in Skeeter Lake. Habitat in the Skeeter Valley is exceptionally good for salmonids; thus, if fish were present in the upper reaches of the creek, it is expected that they would be numerous enough to capture during regular sampling events.

A cascade barrier is present on Schaft Creek approximately 10 km north of the Project site (Plate 3.2-4). This cascade features numerous drops of 1 to 2 m and turbulent flow. No fish have been captured in wetlands or streams upstream of this barrier (including at SC-6, which is located just upstream of the cascade) during numerous sampling attempts. Continued sampling above this feature will aid in confirming the status of the upstream reach of Schaft Creek; however, it is most likely not fish-bearing.

A potential fish barrier was located on Tailings C Creek in 2007. This barrier consists of a bedrock chute, approximately 80 m long, with numerous 1 to 2 m drops (Plate 3.2-5). Flow is fast and turbulent through this stream section. The bankfull width of this area was much wider

than the wetted width at the time of the survey, and it was obvious that water occasionally flows around this chute. Fish density on this stream, even below the barrier, is low due to poor habitat and cold water temperature, and fish sampling has only been conducted at two locations above this reach twice in 2007. Therefore, it is not possible at this time to confirm that this chute acts as a true barrier to fish migration. Other factors, which include habitat quality and water temperature, may also play a role in limiting fish distribution in this watershed. Continued sampling in 2008 will aid in confirming the fish-bearing status of the upper reaches of Tailings C Creek.



Plate 3.2-1. 6 m waterfall on Mess Creek, looking upstream.



Plate 3.2-2. Suspected Chinook salmon smolt captured in Mess Lake, July 2007.



Plate 3.2-3. 30 m waterfall on Skeeter Creek near the outlet to Schaft Creek.



Plate 3.2-4. Cascade barrier on Schaft Creek, near the confluence with Tailings C Creek.



Plate 3.2-5. Possible cascade barrier on Tailings C Creek.

Stream Channel Measurements

An overview fish habitat assessment was conducted at 23 receiving environment reaches (39 sites) within the Hickman, Mess, Schaft, Skeeter, Tailings C Creeks and Stikine River watersheds in June and September 2007. In addition, overview fish habitat assessments were conducted at two reference environment reaches (two sites) within Walkout and Yehiniko Creek watersheds in June and September 2007. Overview fish habitat assessments were conducted in accordance with the *Reconnaissance 1:20,000 Fish and Fish Habitat Inventory Protocol* (RISC, 2001) and the *Reconnaissance 1:20,000 Fish and Fish Habitat Inventory: Site Card Field Guide* (RISC, 1999). Site and stream habitat details are presented in the form of completed site cards in Appendix 3.2-1.

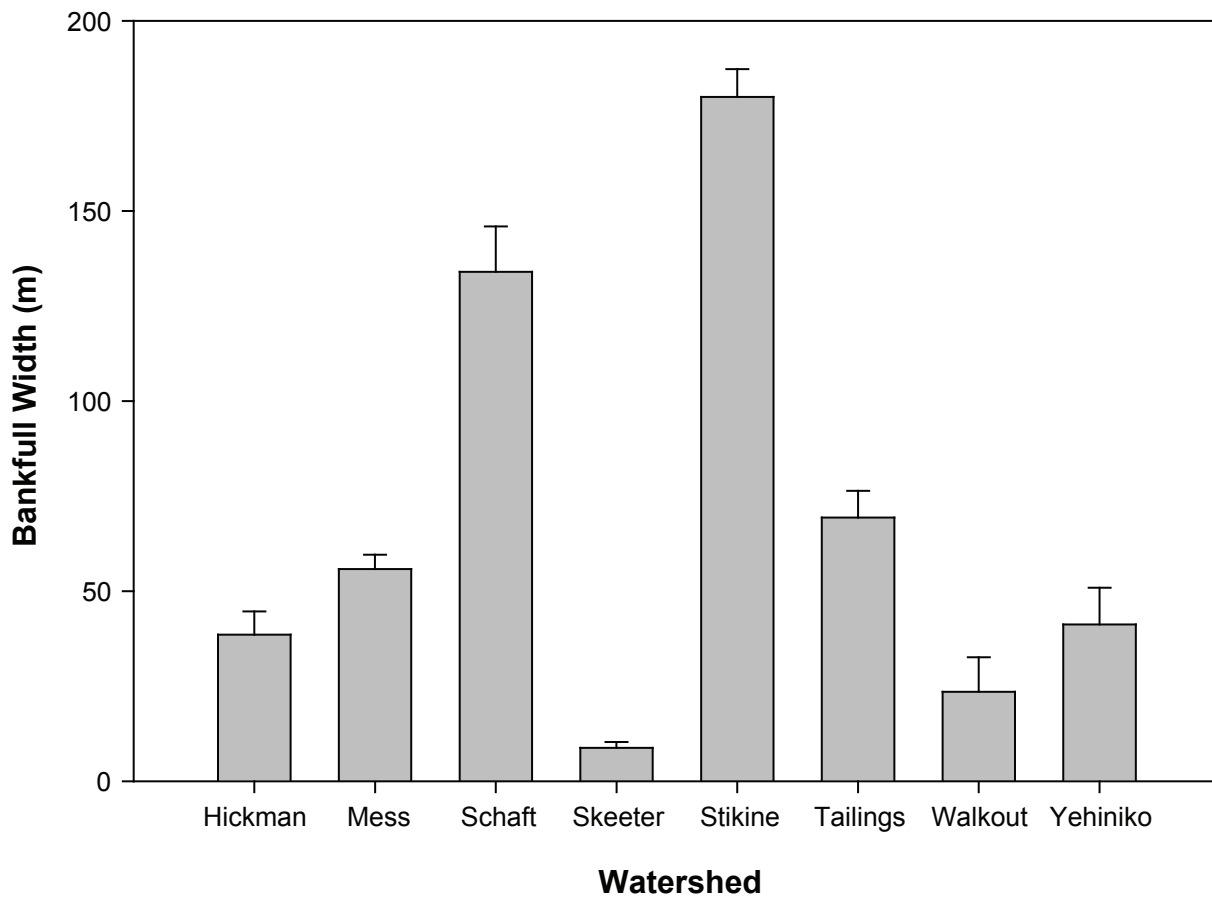
Figures 3.2-1 to 3.2-3 and Figures 3.2-4a, 3.2-4b presents a summary of stream channel measurements for each watershed. Average bankfull width for streams within the receiving environment watersheds varied significantly (ANOVA, $F_{7,155} = 64.46$, $P < 0.001$) between watersheds. The Skeeter Watershed had the lowest average bankfull width. Hickman and Mess watersheds were similar in average bankfull width and were significantly larger than Skeeter Watershed. The Schaft and Stikine watersheds were similar in average bankfull width and had the highest average bankfull widths compared to the other watersheds. The reference watersheds had average bankfull widths similar to the Hickman Watershed.

Average bankfull depths for streams within the receiving environment watersheds were relatively similar throughout all of the watersheds, except for the Stikine Watershed, which was significantly (ANOVA, $F_{7,71} = 25.60$, $P < 0.001$) larger than the other watersheds. Reference environment watersheds had average bankfull depths similar to the receiving environment watersheds, except the Stikine Watershed.

The average gradient for streams within the receiving environment watersheds ranged from 0.3% to 8.7% and were not significantly different (ANOVA, $F_{7,47} = 1.89$, $P = 0.092$). Average gradients for streams within the receiving environment watersheds were low and relatively similar. However, the Skeeter Watershed had a higher gradient (8.7%) than the other receiving environment watersheds. Reference environment watersheds had average gradients similar to the receiving environment watersheds.

Channel Morphology and Disturbance

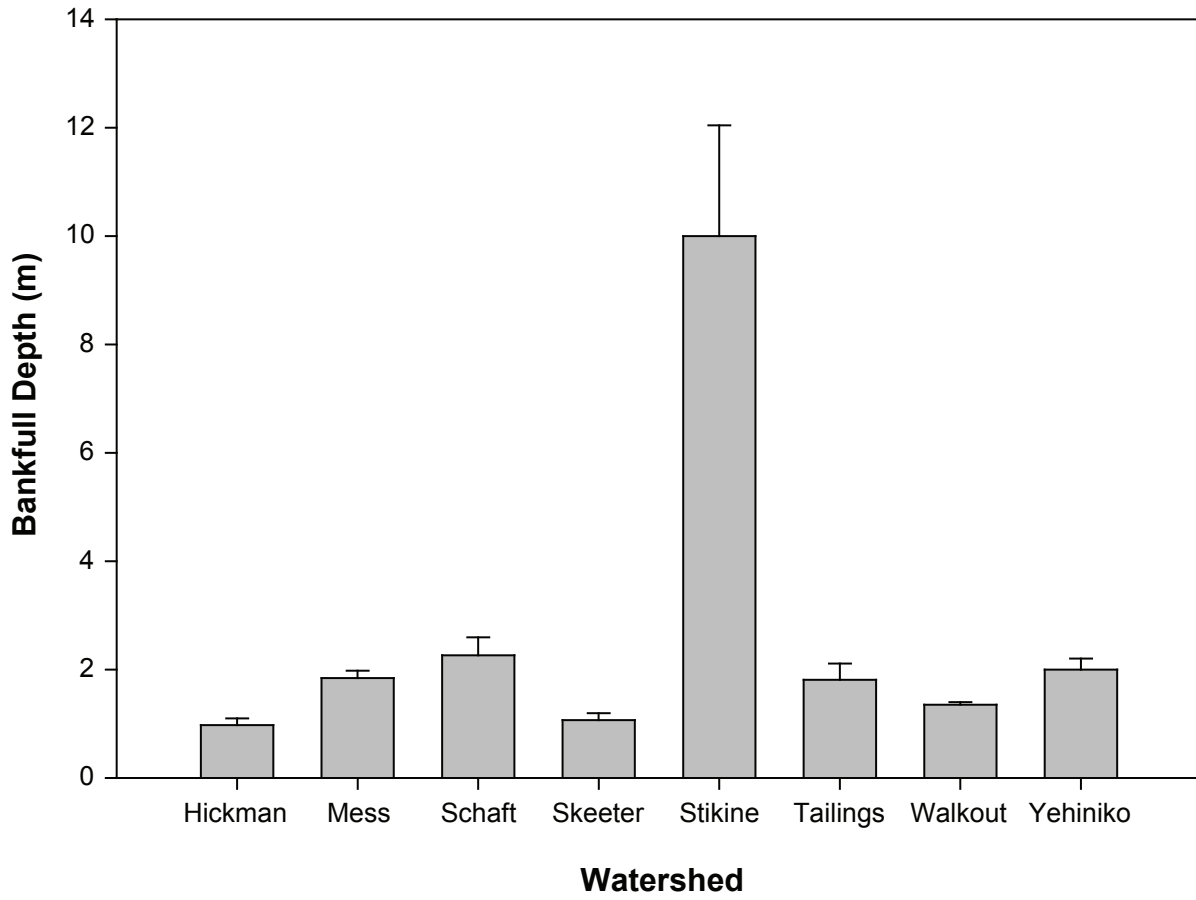
Figures 3.2-5a and 3.2-5b shows the frequency of stream channel morphologies encountered by watershed. Channel morphology is determined by gradient, substrate composition and discharge. Large channels typically display the lowest gradient (less than 0.5%) with consistent depth and fine bed material. All morphology types were observed within receiving environment watersheds. Step-pool morphology was only present within the Skeeter Watershed. Step-pool morphology is typically found where channel gradients exceed 20%, which was present at one site within the Skeeter Watershed and not present within other receiving environment watersheds. The majority of streams possessed riffle-pool morphology, followed by cascade-pool morphology in each watershed. Reference environment watersheds were dominated by cascade-pool morphology. Riffle-pool morphology was not present in reference environment watersheds.



Note: Error bars represent standard error of the mean.

FIGURE 3.2-1

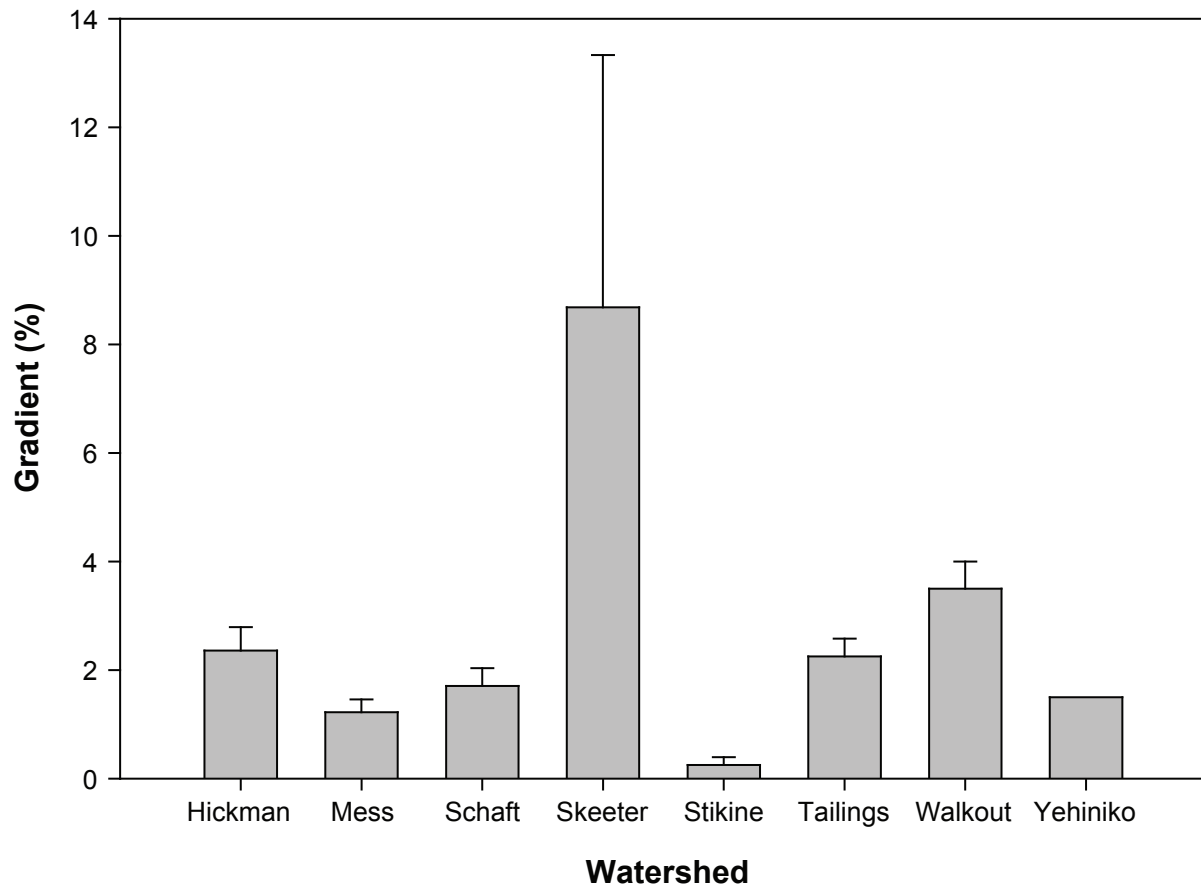




Note: Error bars represent standard error of the mean.

FIGURE 3.2-2

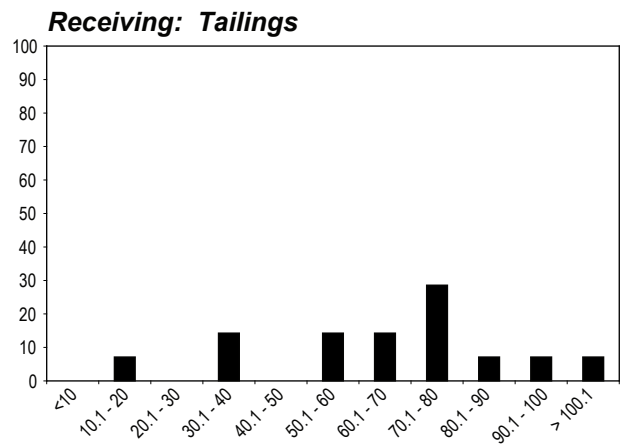
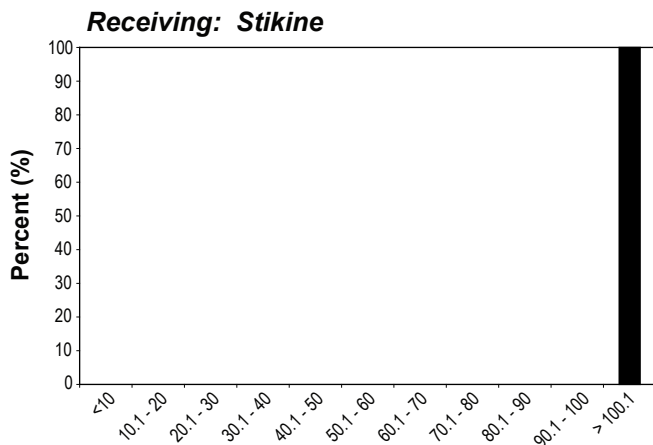
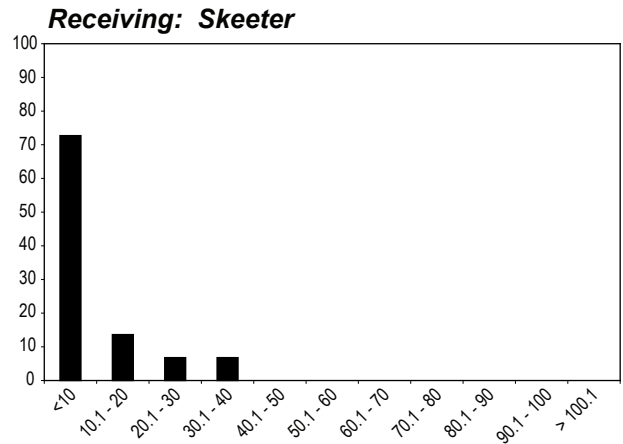
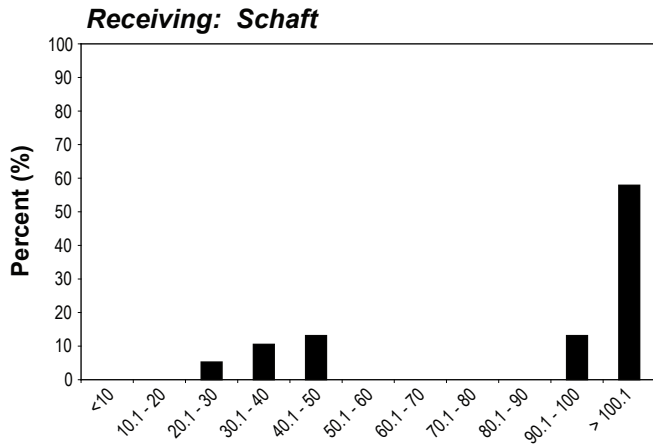
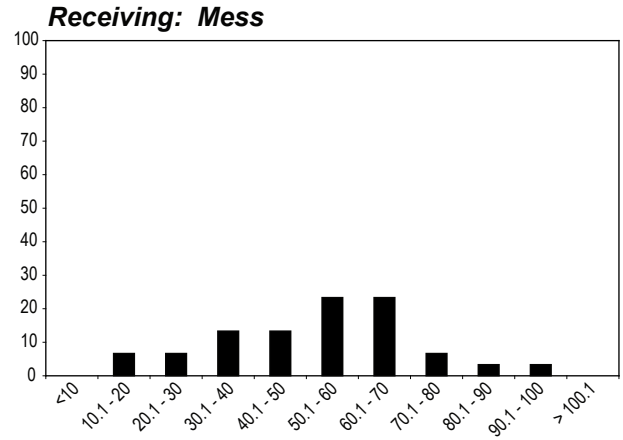
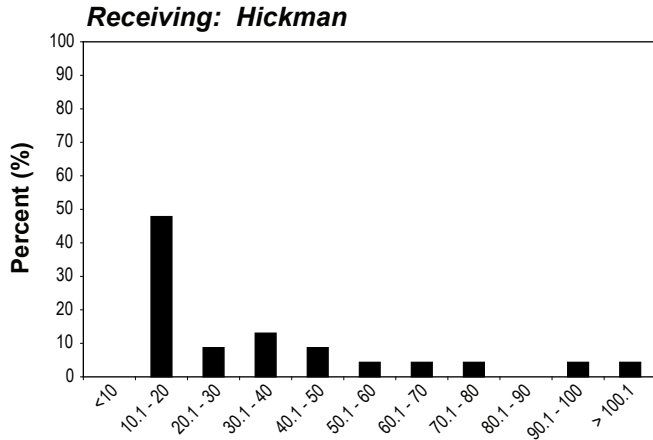




Note: Error bars represent standard error of the mean.

FIGURE 3.2-3





Channel Width Class (m)

Channel Width Class (m)

FIGURE 3.2-4a



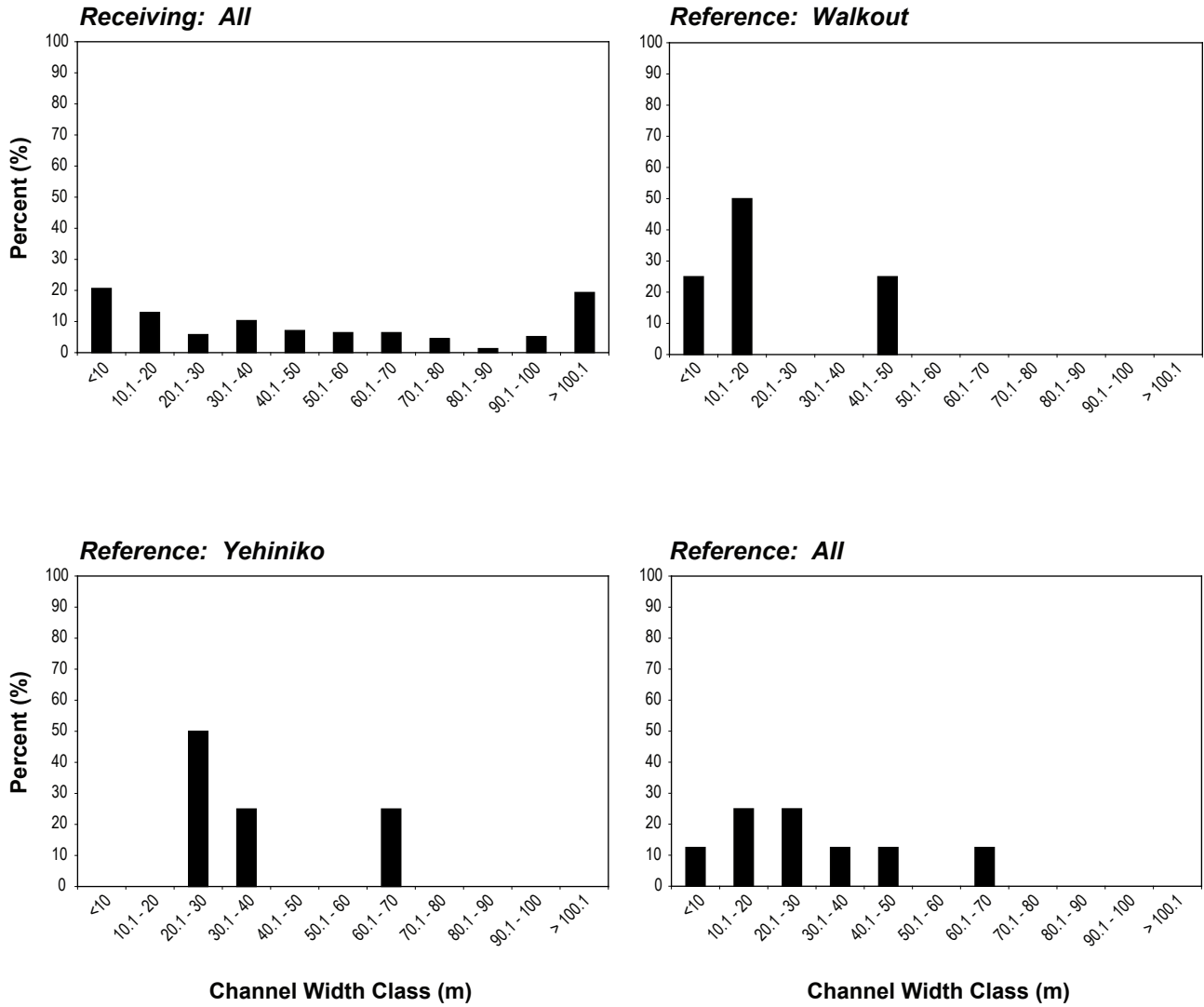


FIGURE 3.2-4b



Cascade-pool streams often have larger substrate classes than riffle-pool streams due to steeper gradient. Of the three primary morphology types, riffle-pool channels have the highest likelihood for supporting stream resident salmonids. In gravel bed channels, riffle-pool morphology generally meets all the life-history requirements for spawning, rearing, overwintering and migration habitat. Cascade-pool reaches with cobble, gravel and boulder substrates provided rearing and overwintering habitat for juvenile salmonids. Spawning habitat in cascade-pool reaches is generally not abundant due to the predominance of cobble substrates. In cascade-pool reaches spawning habitat is primarily restricted to small patches of gravel and sand in pool tailout areas.

Figures 3.2-6a and 3.2-6b show a dominant channel substrate histogram for all streams by watershed. All dominant substrate types were observed within receiving environment watersheds. Dominant bedrock substrate was only present within the Skeeter Watershed. The majority of streams possessed cobble, followed by gravel as the dominant substrate in each receiving environment watershed. Reference environment watersheds only possessed cobble as the dominant substrate.

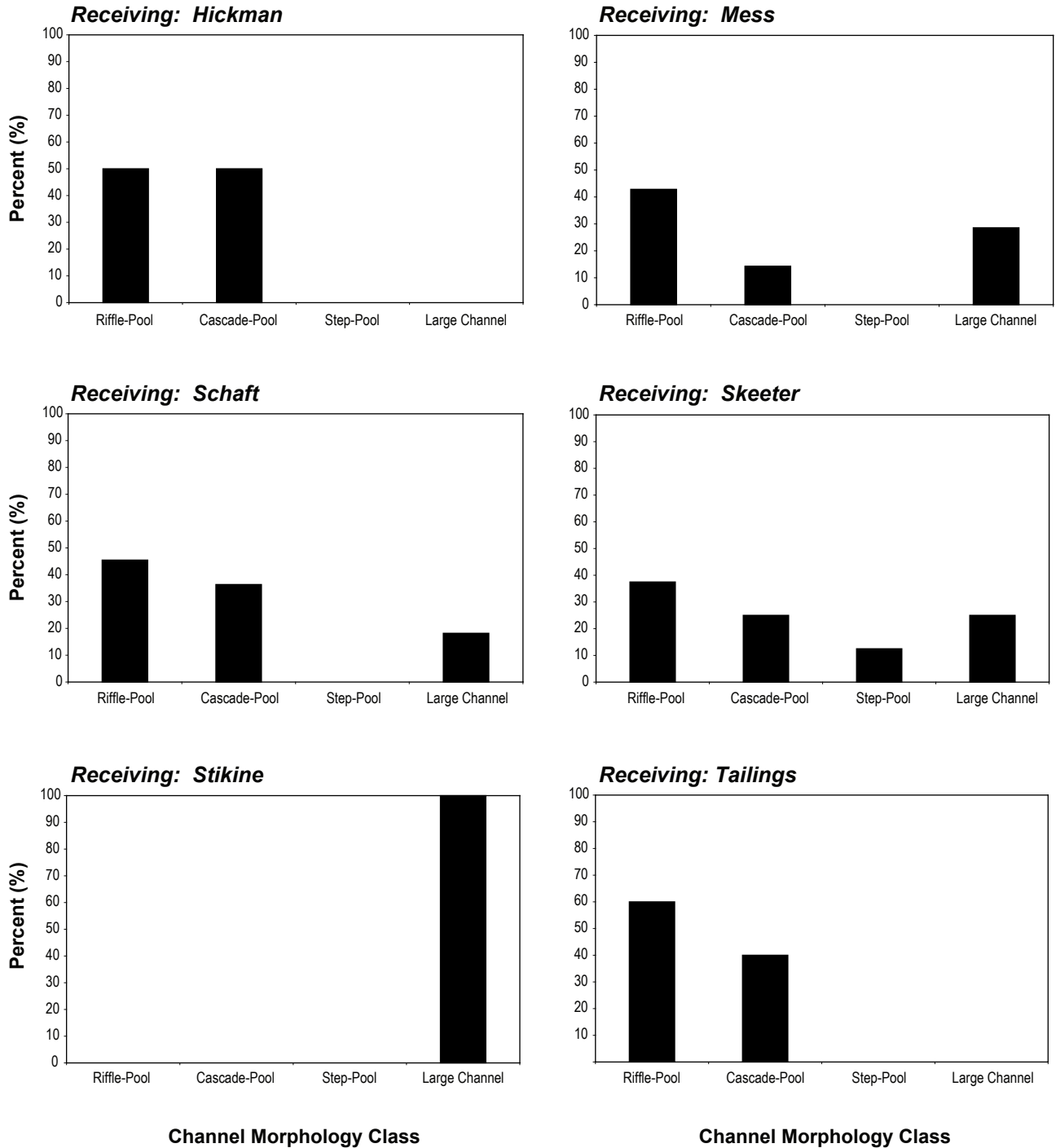
All sub-dominant substrate types were also observed within receiving environment watersheds (Figures 3.2-7a and 3.2-7b). Sub-dominant bedrock substrate was only present within the Tailings C Watershed. The majority of streams had gravel as a sub-dominant substrate in each receiving environment watershed. Reference environment watersheds possessed boulders (*i.e.*, Walkout Watershed) and gravel (*i.e.*, Yehiniko Watershed) as the sub-dominant substrate.

Channel disturbances from sediment inputs, obstructions and erosion can affect fish habitat quality. Figures 3.2-8a and 3.2-8b show a channel disturbance histogram for all streams by watershed. Channel disturbances were pooled into four categories: banks, large woody debris (LWD), morphology and sedimentation. Within each category the following disturbances could be present:

- Banks – abandoned channels, eroding banks, avulsions;
- LWD – small woody debris, large woody debris, recently formed debris jams;
- Morphology – extensive riffle or cascades, minimal pool area, elevated mid-channel bars, multiple channels or braids, disturbed stone-lines; and
- Sedimentation – homogeneous bed texture, sediment fingers, sediment wedges, extensive bars, extensively scoured zones.

Morphology was the most frequently recorded disturbance category in the receiving environment watersheds, except the Mess Watershed. Bank disturbances were the second most frequently recorded disturbance category in the receiving environment watersheds. Sedimentation was the least recorded disturbance category in the receiving environment watersheds. Bank disturbances were the most frequently recorded disturbance category in the reference watersheds.

Channel pattern describes the degree to which the channel deviates from a straight line. Figures 3.2-9a and 3.2-9b show channel pattern frequency for all streams by watershed. All channel pattern types were observed within receiving environment watersheds.

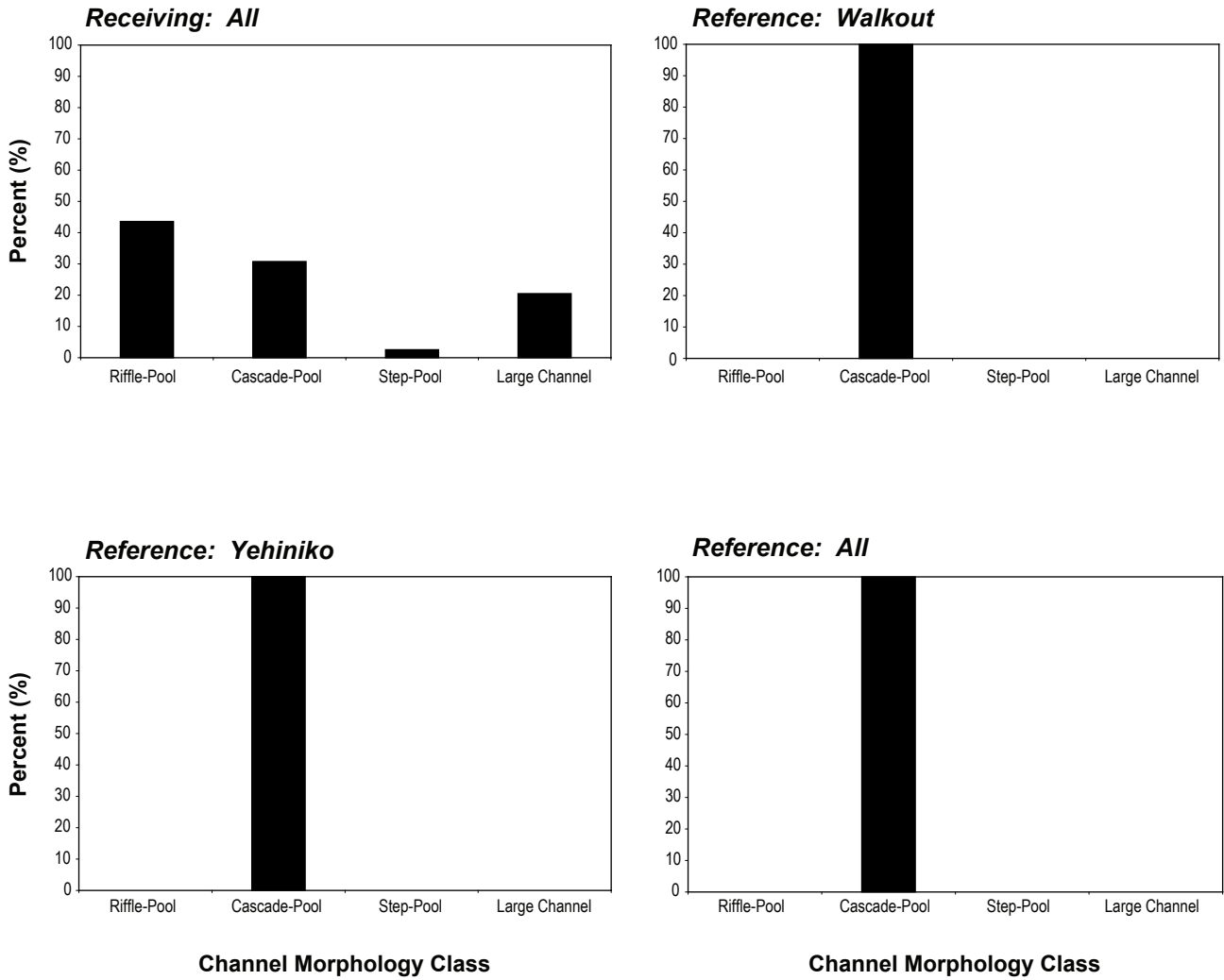


Channel Morphology Class

Channel Morphology Class

FIGURE 3.2-5a





Channel Morphology Class

Channel Morphology Class

FIGURE 3.2-5b

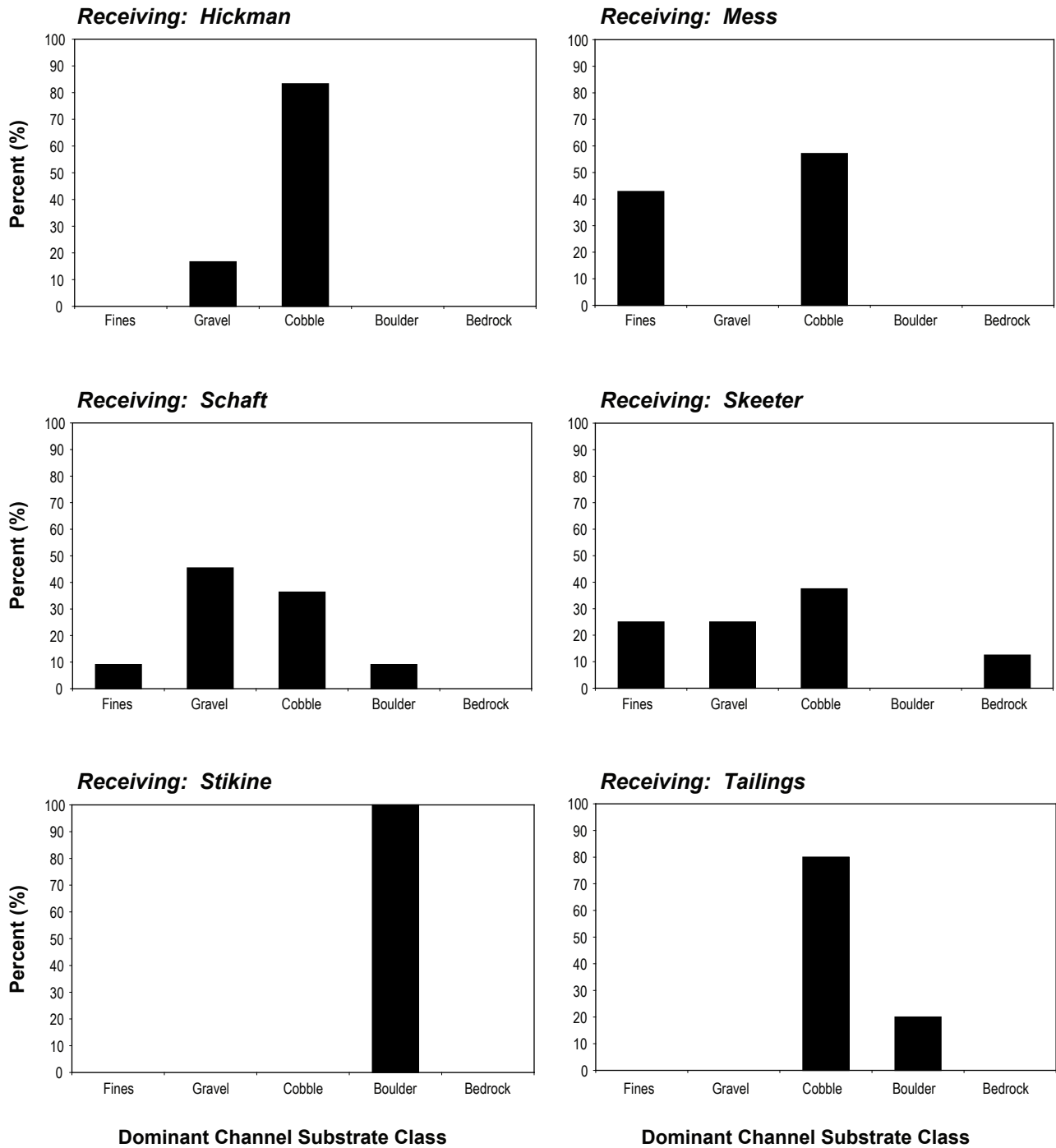
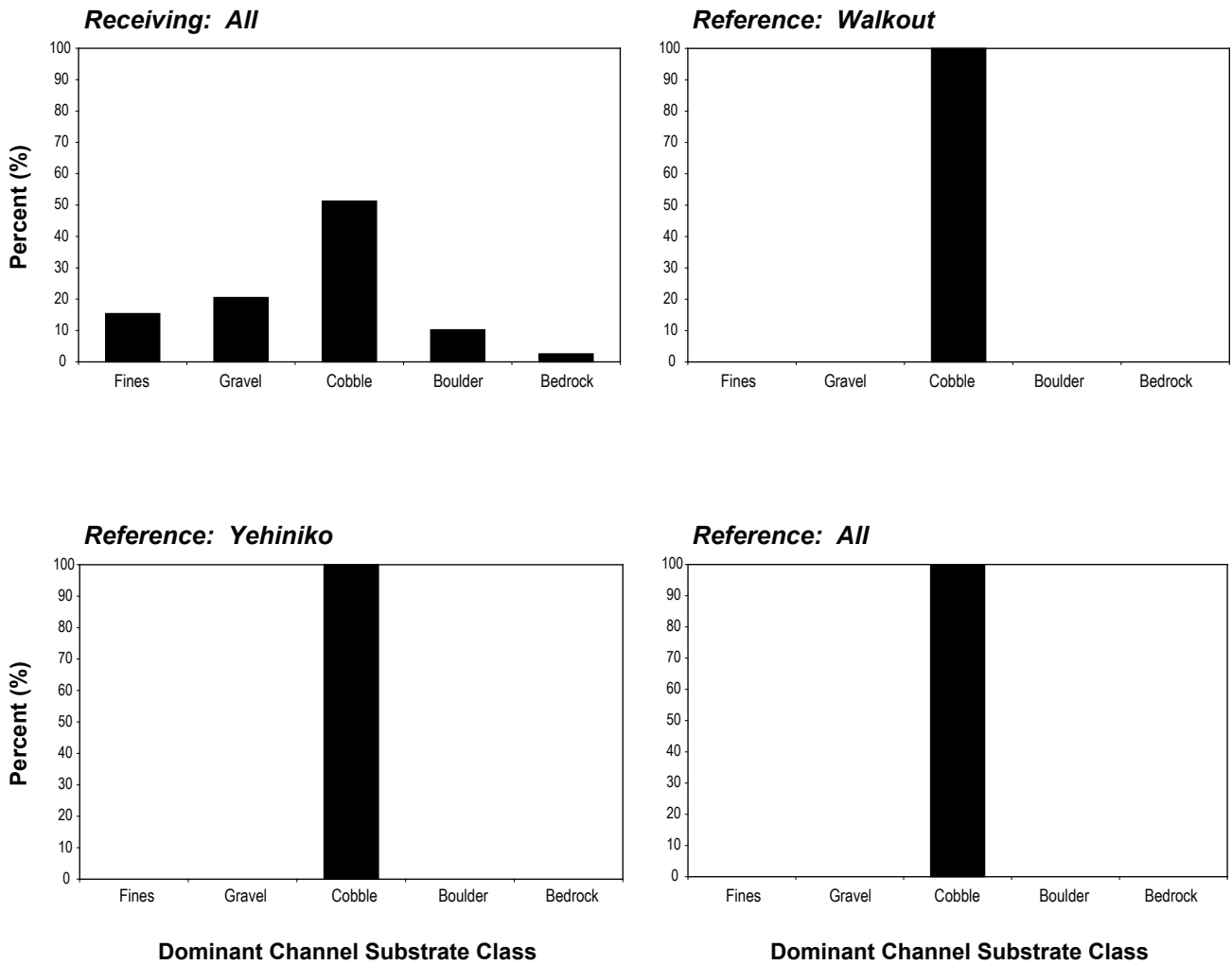


FIGURE 3.2-6a



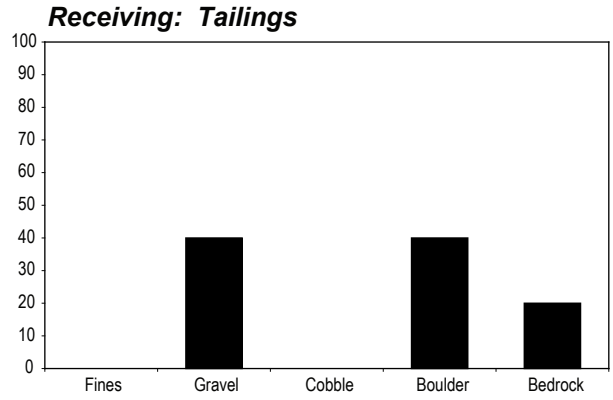
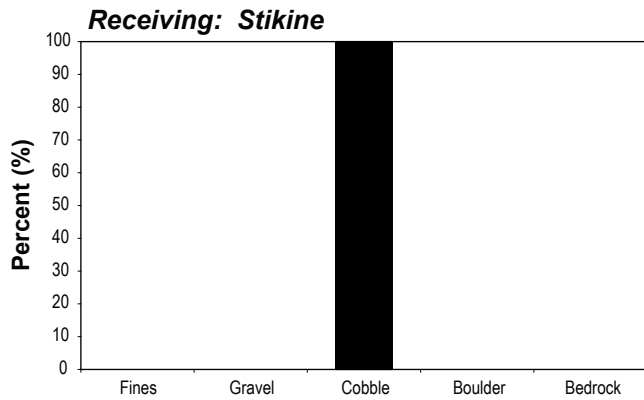
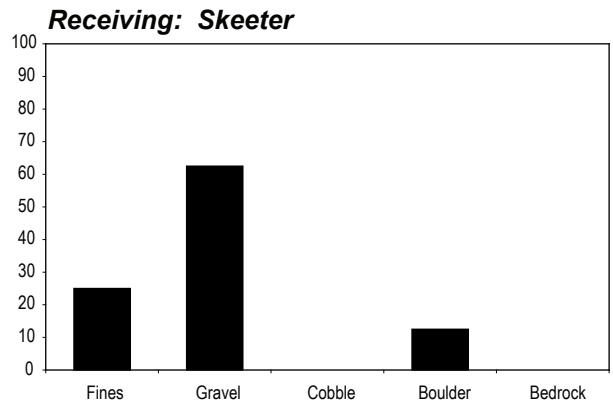
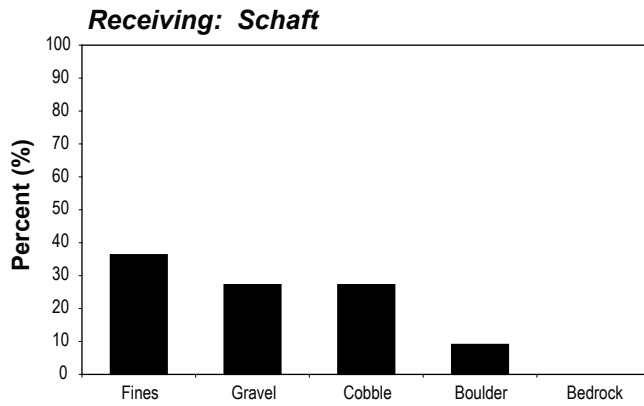
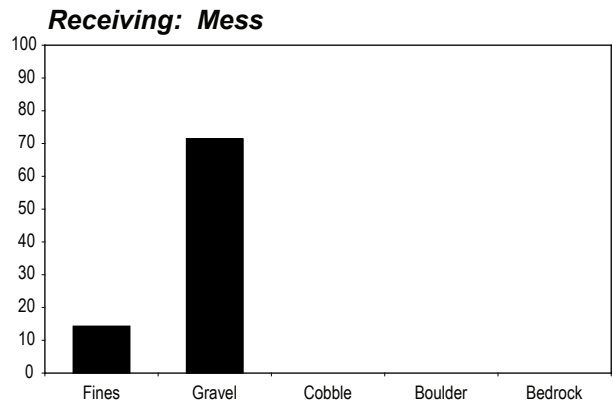
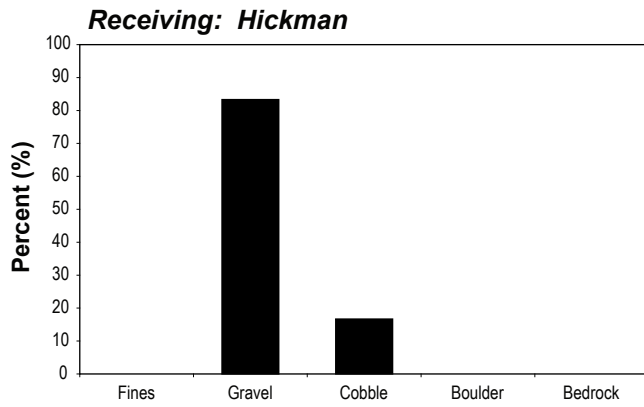


Dominant Channel Substrate Class

Dominant Channel Substrate Class

FIGURE 3.2-6b





Sub-dominant Channel Substrate Class

Sub-dominant Channel Substrate Class

FIGURE 3.2-7a



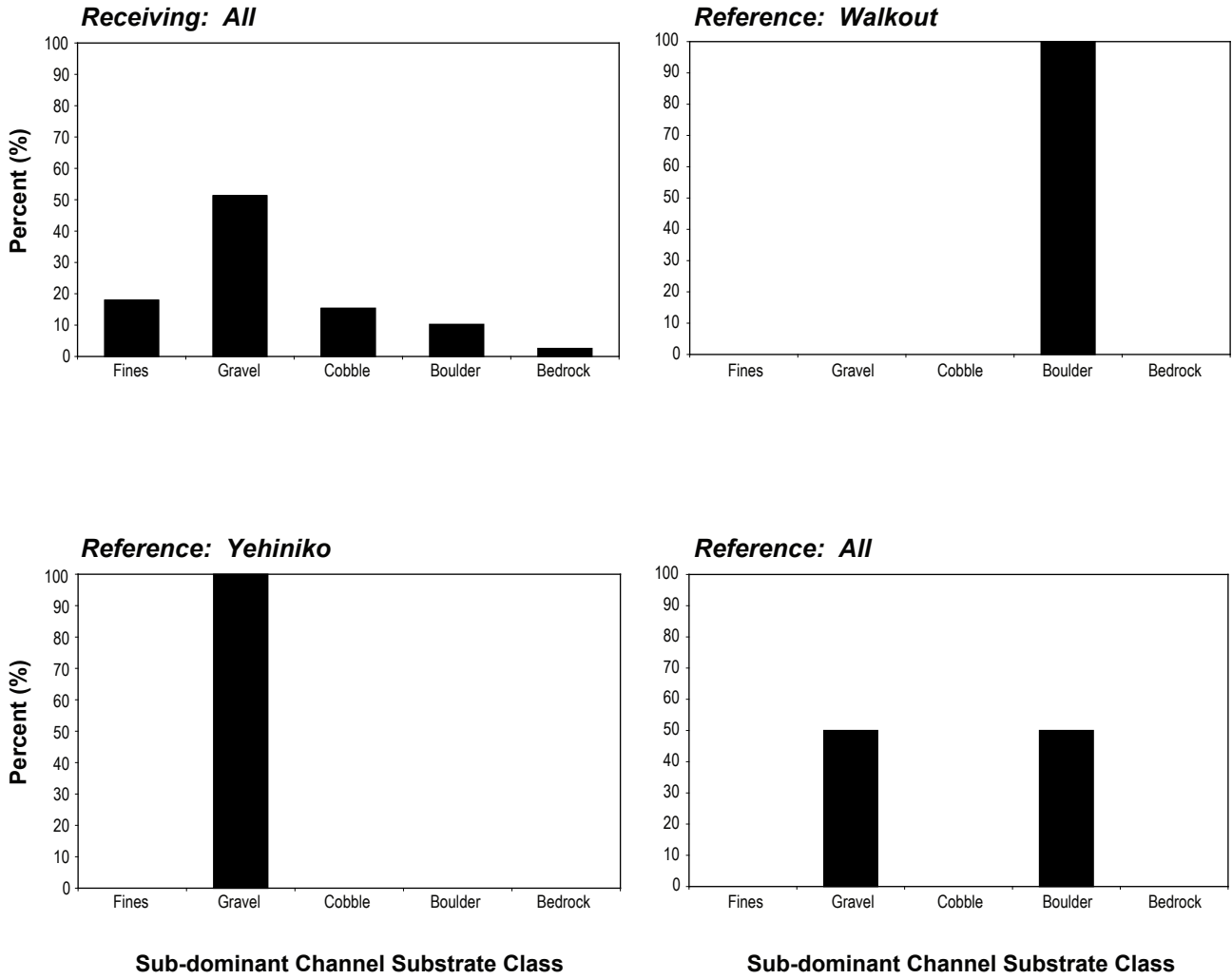
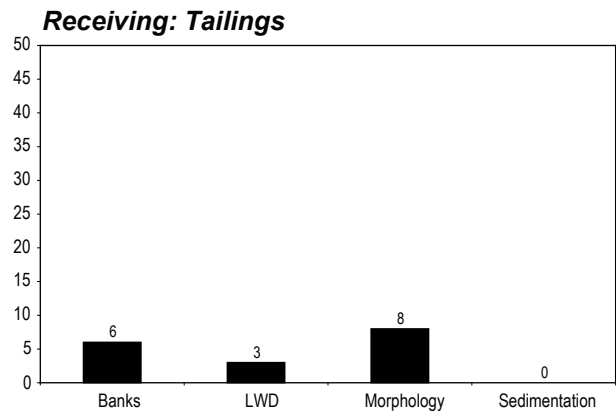
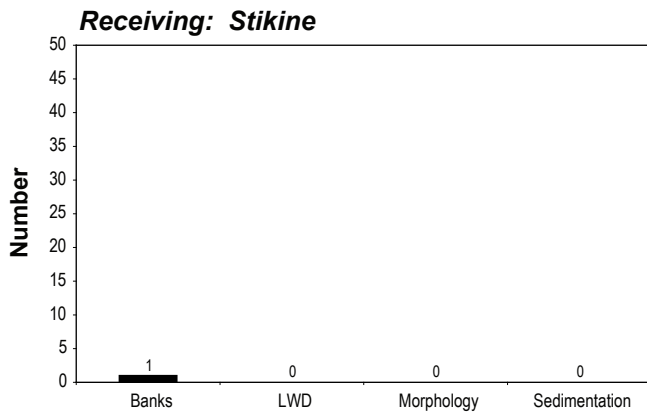
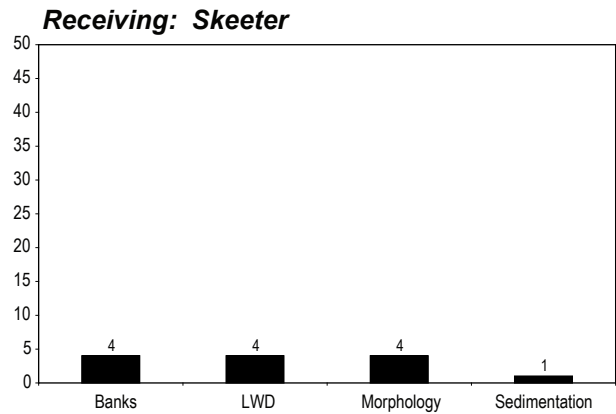
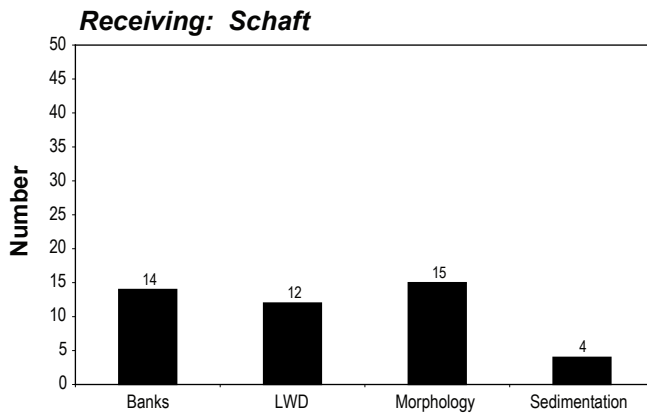
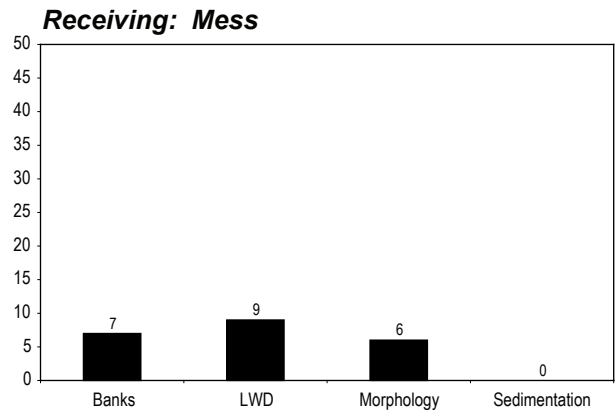
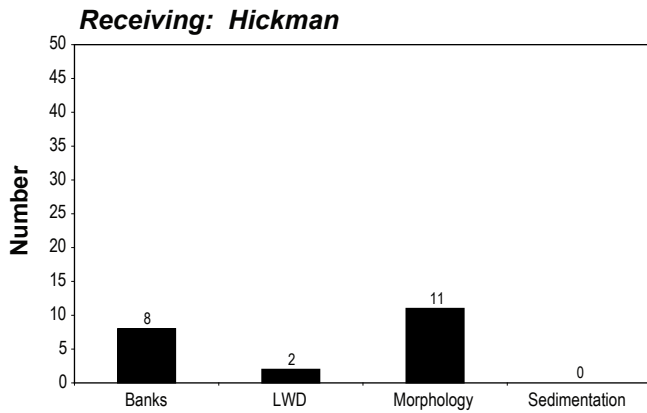


FIGURE 3.2-7b



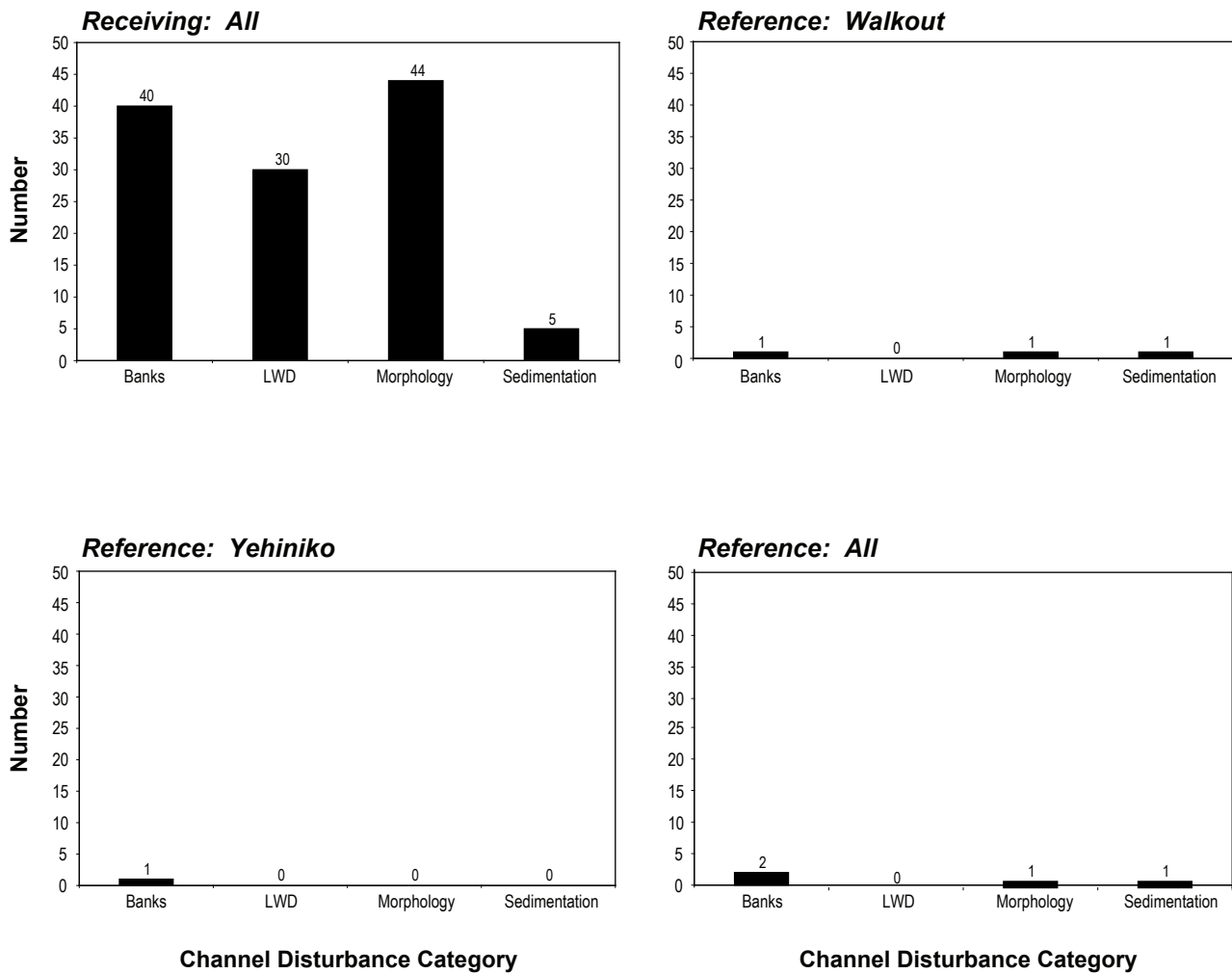
**Summary of Sub-Dominant Substrates
for all Streams in the Receiving and
Reference Environment Watersheds, 2007**



Channel Disturbance Category

Channel Disturbance Category

FIGURE 3.2-8a



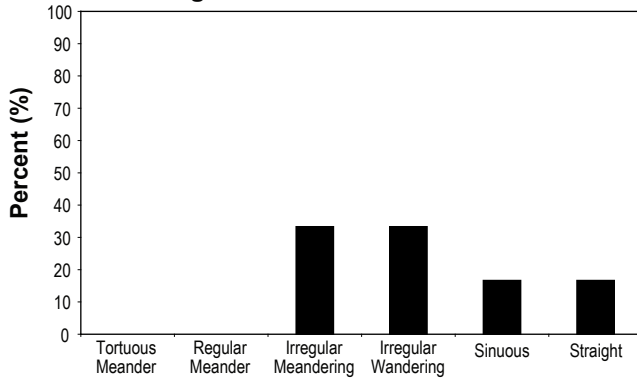
Channel Disturbance Category

Channel Disturbance Category

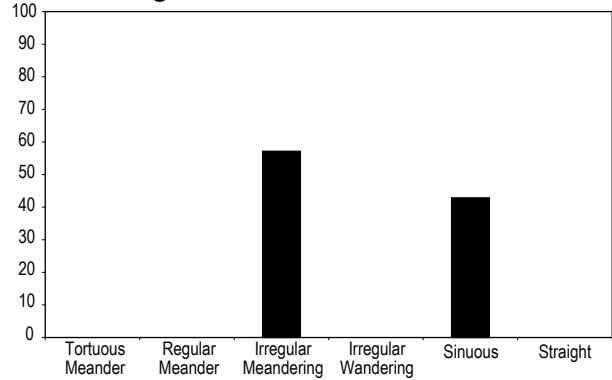
FIGURE 3.2-8b



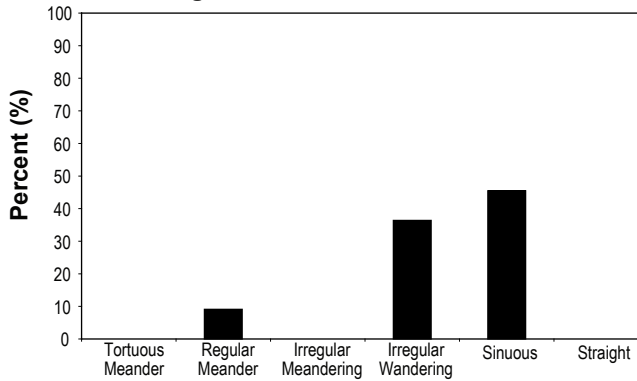
Receiving: Hickman



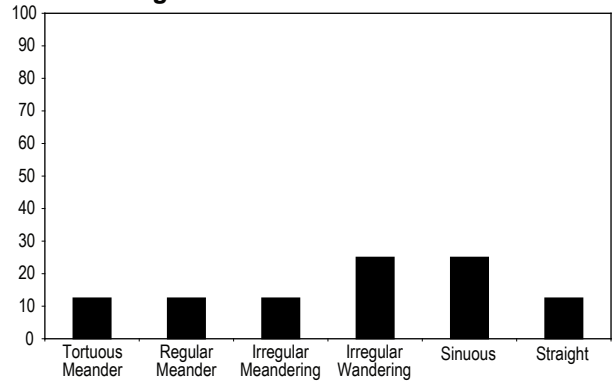
Receiving: Mess



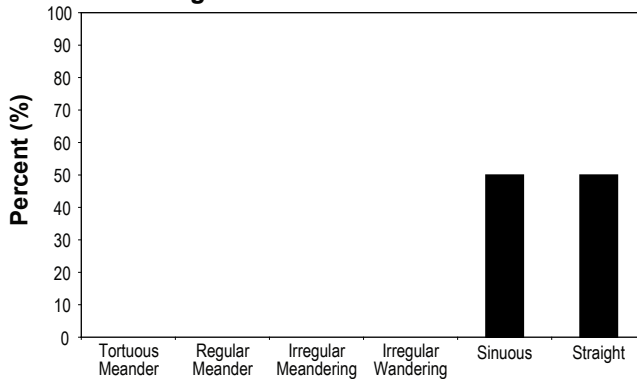
Receiving: Schaft



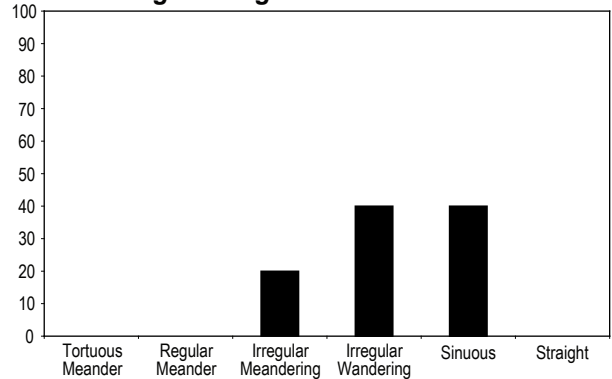
Receiving: Skeeter



Receiving: Stikine



Receiving: Tailings

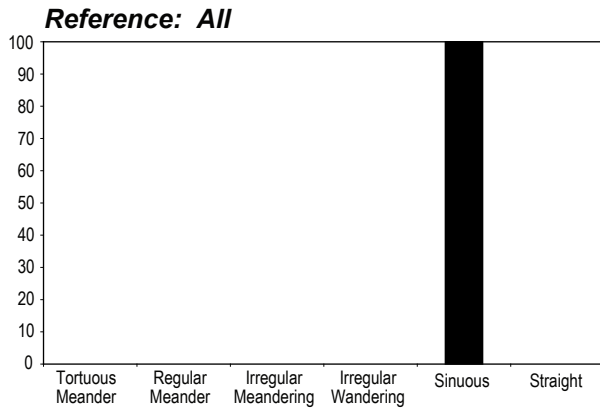
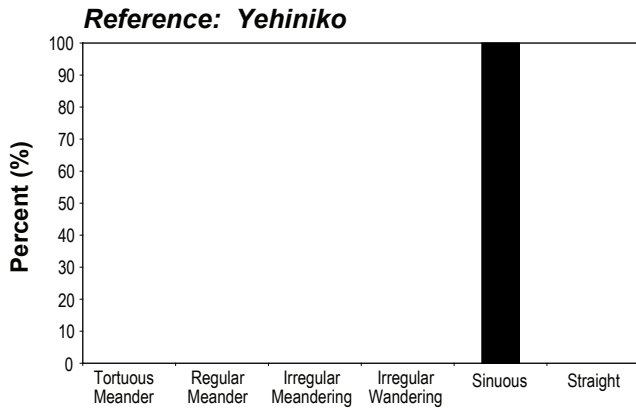
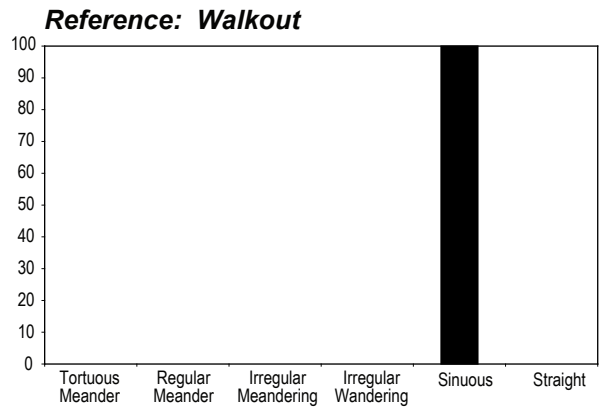
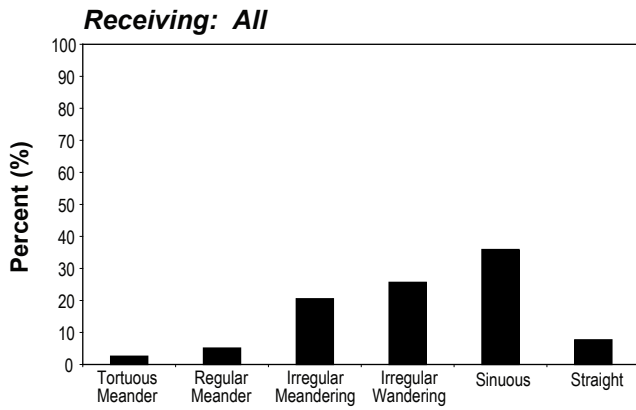


Channel Pattern Classification

Channel Pattern Classification

FIGURE 3.2-9a





Channel Pattern Classification

Channel Pattern Classification

FIGURE 3.2-9b



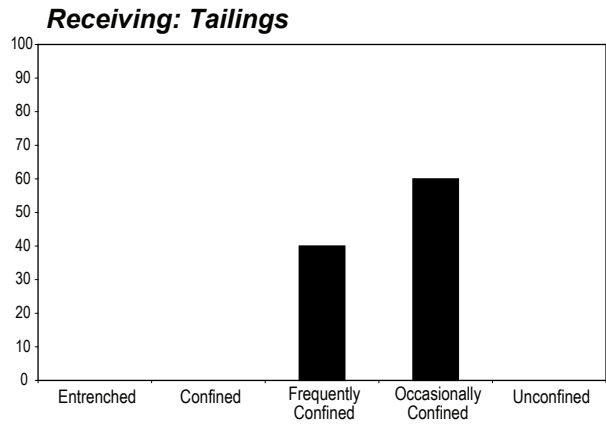
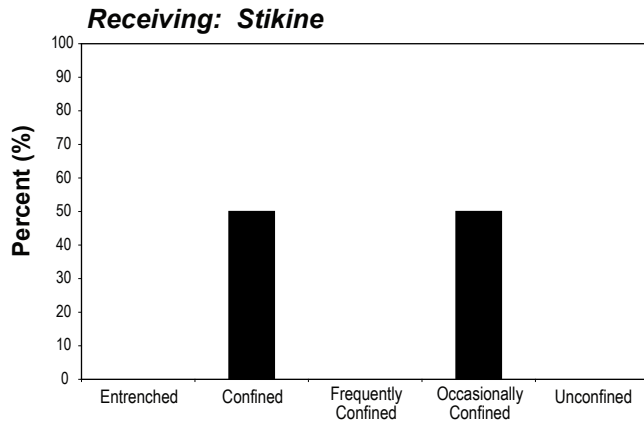
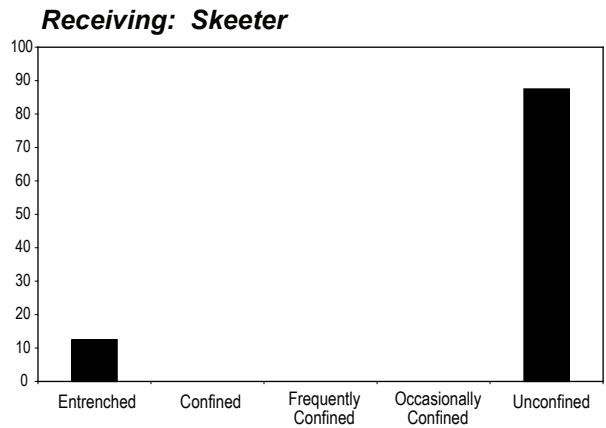
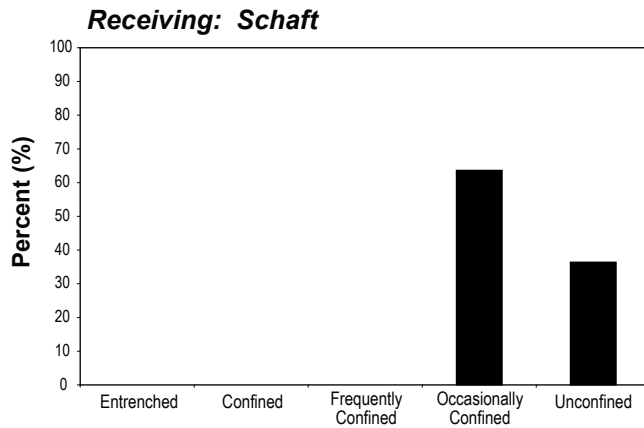
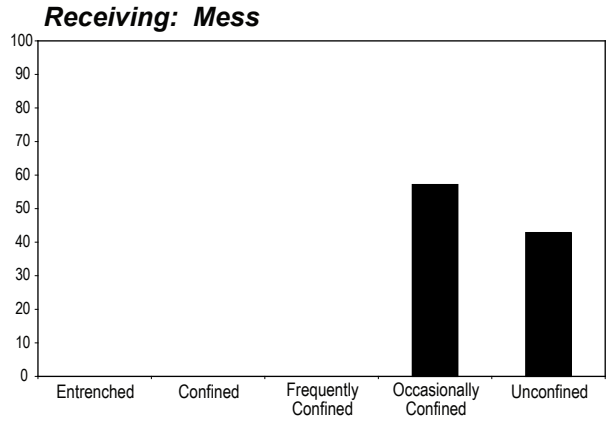
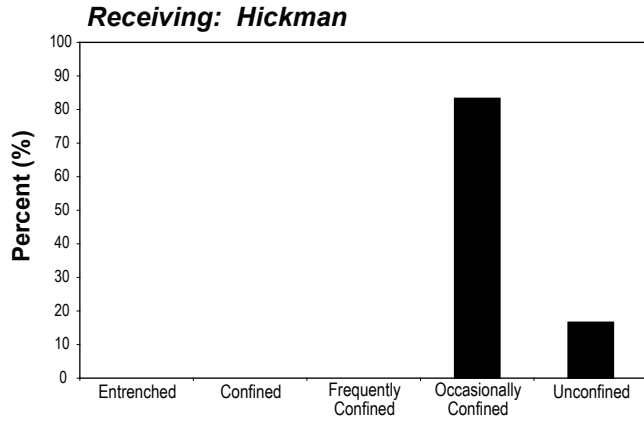
The majority of streams possessed a sinuous channel pattern as the dominant pattern in each receiving environment watershed; however, Hickman and Mess watersheds were dominated by an irregular meandering channel pattern. Tortuous meanders were only present within the Skeeter Watershed. Reference environment watersheds were dominated by a sinuous channel pattern similar to that of the receiving environment watersheds.

Confinement refers to the ability of a channel to migrate laterally between adjacent slopes. Unconfined channels are not limited by valley walls and can migrate across adjacent flat ground, whereas confined channels are constrained by valley walls and can not migrate. Figures 3.2-10a and 3.2-10b show a channel confinement histogram for all streams by watershed. All channel confinement types were observed within receiving environment watersheds. The majority of streams in each receiving environment watershed possessed an occasionally confined channel. Entrenched reaches were only present within the Skeeter Watershed. The reference environment watersheds were dominated by unconfined channels, thus, differing from the receiving environment watersheds.

Coupling describes the likelihood that sediment could enter stream channels from adjacent hillslopes, and is rated as one of the following: coupled (high likelihood that sediment could enter the stream channel), partially coupled (moderate likelihood) or decoupled (low likelihood). Figures 3.2-11a and 3.2-11b show a hillside coupling histogram for all streams by watershed. All channel coupling types were observed within receiving environment watersheds. The majority of streams were decoupled from the hillside, including those in the reference watersheds.

Water Quality Parameters

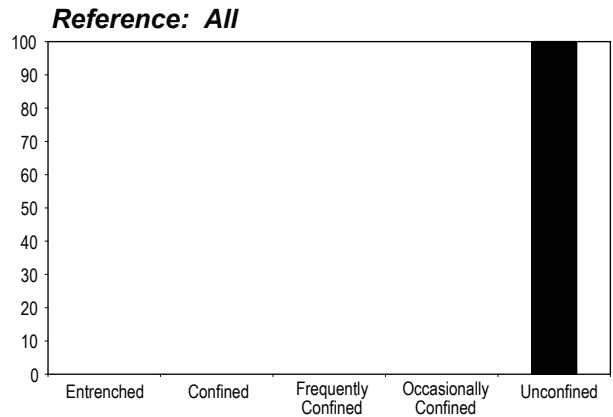
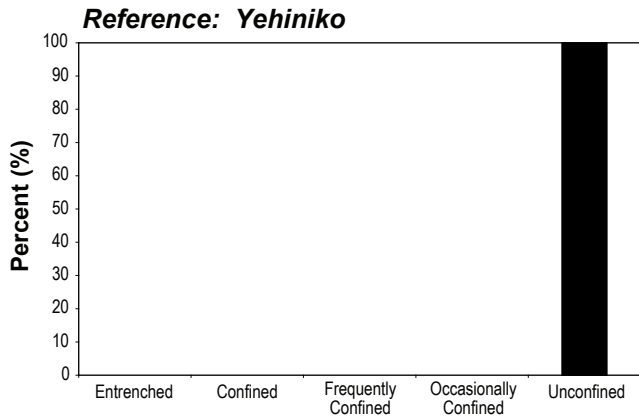
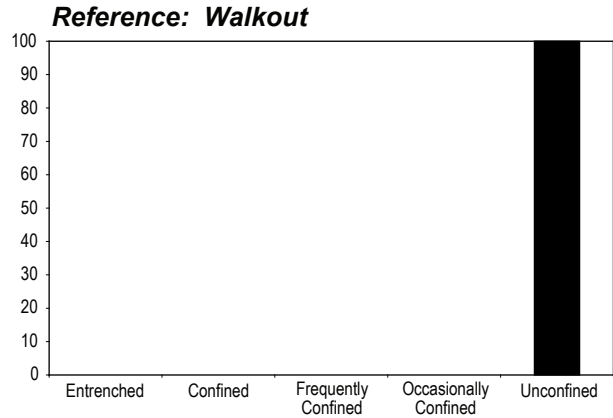
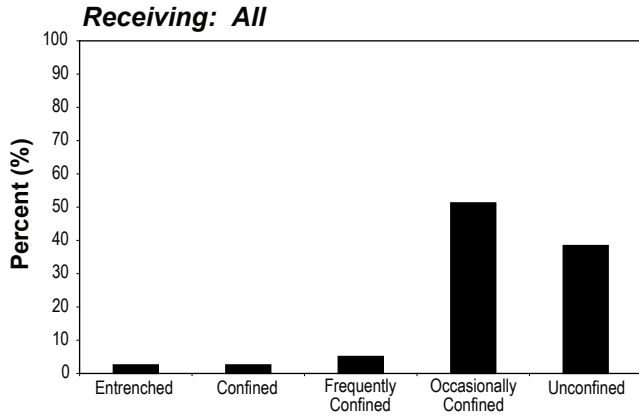
Table 3.2-2 shows a summary of water quality characteristics for all streams by watershed. Average June water temperatures varied between 4.3 and 8.0°C within receiving environment watersheds. The Stikine Watershed had the highest average temperature of 8.0°C. Reference environment watersheds possessed average water temperatures similar to those of receiving environment watersheds. Average water temperatures were slightly cooler in September than June for receiving and reference environment watersheds, which is to be expected due to cooling air temperatures. Average June conductivity varied between 40.0 and 140.0 µs/cm within receiving environment watersheds. Tailings C Watershed had the lowest average conductivity, while Skeeter Watershed had the highest average conductivity. Reference environment watersheds possessed lower average conductivities than those of receiving environment watersheds. Average conductivities were lower in September than in June for receiving and reference environment watersheds. Average stream pH ranged from relatively neutral (*i.e.*, 7.07) to slightly alkaline (*i.e.*, 7.90) within receiving environment watersheds. Reference environment watersheds possessed a similar range of average pH to receiving environment watersheds.



Channel Confinement Classification

Channel Confinement Classification

FIGURE 3.2-10a



Channel Confinement Classification

Channel Confinement Classification

FIGURE 3.2-10b

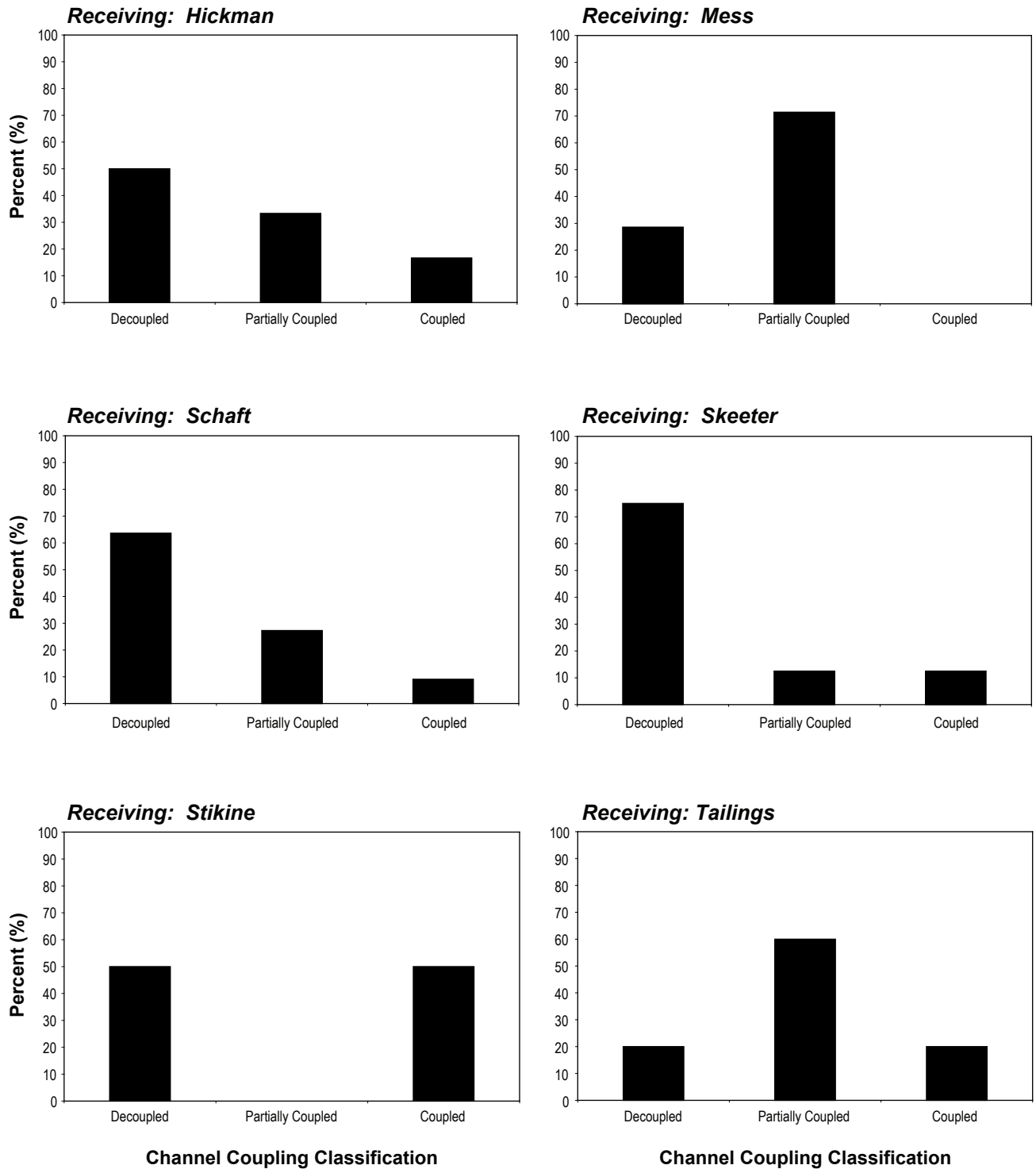


FIGURE 3.2-11a



Summary of Hillside Coupling Classifications for all Streams in the Receiving and Reference Environment Watersheds, 2007

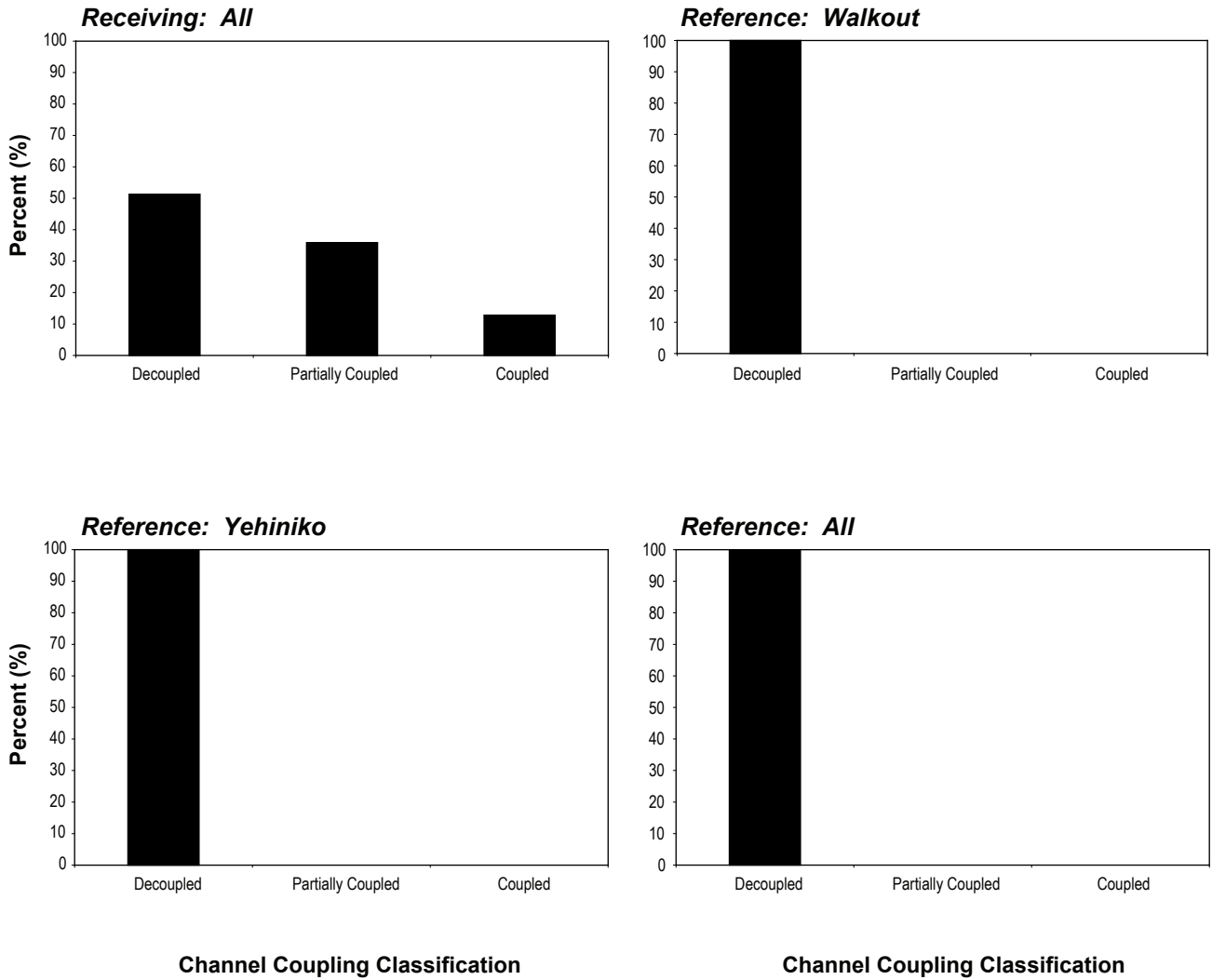


FIGURE 3.2-11b



Table 3.2-2
Summary of Water Quality Characteristics for all Streams in the
Receiving and Reference Environment Watersheds, 2007

June										
Watershed	Total Number of Sites	Average Temperature (°C)	SE	n	Average Conductivity (µS/cm)	SE	n	Average pH	SE	n
Receiving Environment										
Hickman	6	4.3	0.33	3	120.0	0.00	3	7.47	0.17	3
Mess	7	6.5	1.19	4	135.0	25.98	4	7.30	0.11	4
Schaft	11	5.2	0.92	5	96.0	8.72	5	7.36	0.05	5
Skeeter	8	6.5	2.47	4	140.0	20.41	4	7.30	0.09	4
Stikine	2	8.0	0.00	2	100.0	0.00	2	7.90	0.00	2
Tailings	5	4.3	0.33	3	40.0	5.77	3	7.07	0.09	3
All (Receiving)	39	5.7	0.57	21	103.5	9.38	21	7.36	0.06	21
Reference Environment										
Walkout	1	5.0	-	1	50.0	-	1	7.00	-	1
Yehiniko	1	6.0	-	1	90.0	-	1	7.50	-	1
All (Reference)	2	5.5	0.50	2	70.0	20.00	2	7.25	0.25	2
September										
Receiving Environment										
Hickman	6	4.3	1.20	3	60.0	0.00	3	-	-	-
Mess	7	3.3	0.88	3	136.7	38.44	3	-	-	-
Schaft	11	4.2	0.75	6	58.3	4.01	6	-	-	-
Skeeter	8	6.0	1.00	4	127.0	13.13	4	7.90	-	1
Stikine	2	-	-	-	-	-	-	-	-	-
Tailings	5	2.0	1.00	2	15.0	5.00	2	-	-	-
All (Receiving)	39	4.2	0.48	18	82.1	11.76	18	7.90	-	1
Reference Environment										
Walkout	1	-	-	-	-	-	-	-	-	-
Yehiniko	1	-	-	-	-	-	-	-	-	-
All (Reference)	2	-	-	-	-	-	-	-	-	-

Dashes indicate no data available

Fish Habitat Characteristics

Functional LWD abundance, type, and distribution influence fish habitat quality for all life stages. Figures 3.2-12a and 3.2-12b show a histogram of functional LWD abundance for all streams by watershed. Figures 3.2-13a and 3.2-13b show a histogram of functional LWD distribution for all streams by watershed. The majority of streams possessed “none” to “few” pieces of functional LWD within receiving environment watersheds. Functional LWD distribution varied depending upon the receiving environment watershed. Functional LWD abundance and distribution in the Reference environment watersheds was similar to that in the receiving environment watersheds.

The stream bank is that part of the channel which contains the flow, and stream banks influence fish habitat quality by providing cover and regulating stream sedimentation. Stream banks are

classified by shape: undercut (bank extends out over the wetted channel, overhanging (bank extends out over the non-wetted part of the channel), vertical (45° to 90° gradient away from the channel), and sloping (less than 45° gradient away from the channel). Of the four types, undercut banks generally provide the greatest fish habitat and cover. Figures 3.2-14a and 3.2-14b present a histogram of bank shape for all streams by watershed. No streams in the study area had overhanging banks. The majority of streams within receiving environment watersheds possessed sloping or vertical banks. Some undercut banks were present in the Hickman and Schaft watersheds. Similar to receiving environment watersheds, the Reference environment streams were dominated by vertical banks.

Bank texture refers to the substrate materials that compose the banks of the stream, and is an indicator of stream power and erosional processes. Figures 3.2-15a and 3.2-15b present a stream bank texture histogram for all streams by watershed. Fines were the most frequently recorded bank texture in the receiving environment watersheds, except in Tailings C Watershed where cobble was the most commonly recorded bank texture. Gravel was the second most frequently recorded bank texture in the receiving environment watersheds. Bedrock was the least recorded bank texture in the receiving environment watersheds. In the Reference watersheds, cobble was the most frequently recorded bank texture.

Figures 3.2-16a and 3.2-16b show a histogram of total cover abundance for all streams by watershed. The majority of receiving environment watersheds possessed a trace amount of cover, except in the Skeeter Watershed where total cover was abundant. The reference environment watersheds possessed trace to moderate amounts of total cover.

Figures 3.2-17a and 3.2-17b show the frequency of dominant cover types recorded for all streams by watershed. Cover was divided into seven types: small woody debris (SWD), LWD, boulders, undercut banks, deep pools, overhanging vegetation and instream vegetation. Overhanging vegetation was the dominant cover type for all receiving environment watersheds except the Schaft Watershed, where LWD was dominant. Deep pools and instream vegetation were the least dominant cover types across all receiving environment watersheds. Reference environment watersheds were similar to receiving environment watersheds with overhanging vegetation and LWD dominating the cover types. Figures 3.2-18a and 3.2-18b show the frequency of sub-dominant cover types recorded for all streams by watershed. LWD and SWD were the most prevalent sub-dominant cover types in all receiving environment watersheds. Sub-dominant cover in the Reference environment watersheds varied between watersheds.

Riparian vegetation serves many functions as a component of fish habitat, including providing cover and shade, large and small organic debris and food. Figures 3.2-19a and 3.2-19b show the dominant riparian vegetation recorded for all streams by watershed. Riparian vegetation was divided into seven categories: none, grass, shrub, deciduous forest, coniferous forest, mixed forest and wetland. Mixed forest was the dominant riparian vegetation type in all receiving environment watersheds except Stikine and Tailings C watersheds where deciduous forest and coniferous forest dominated the riparian vegetation. Grass and “none” were the least recorded riparian types among all receiving environment watersheds. The dominant riparian vegetation types in the Reference environment watersheds were mixed and deciduous forests.

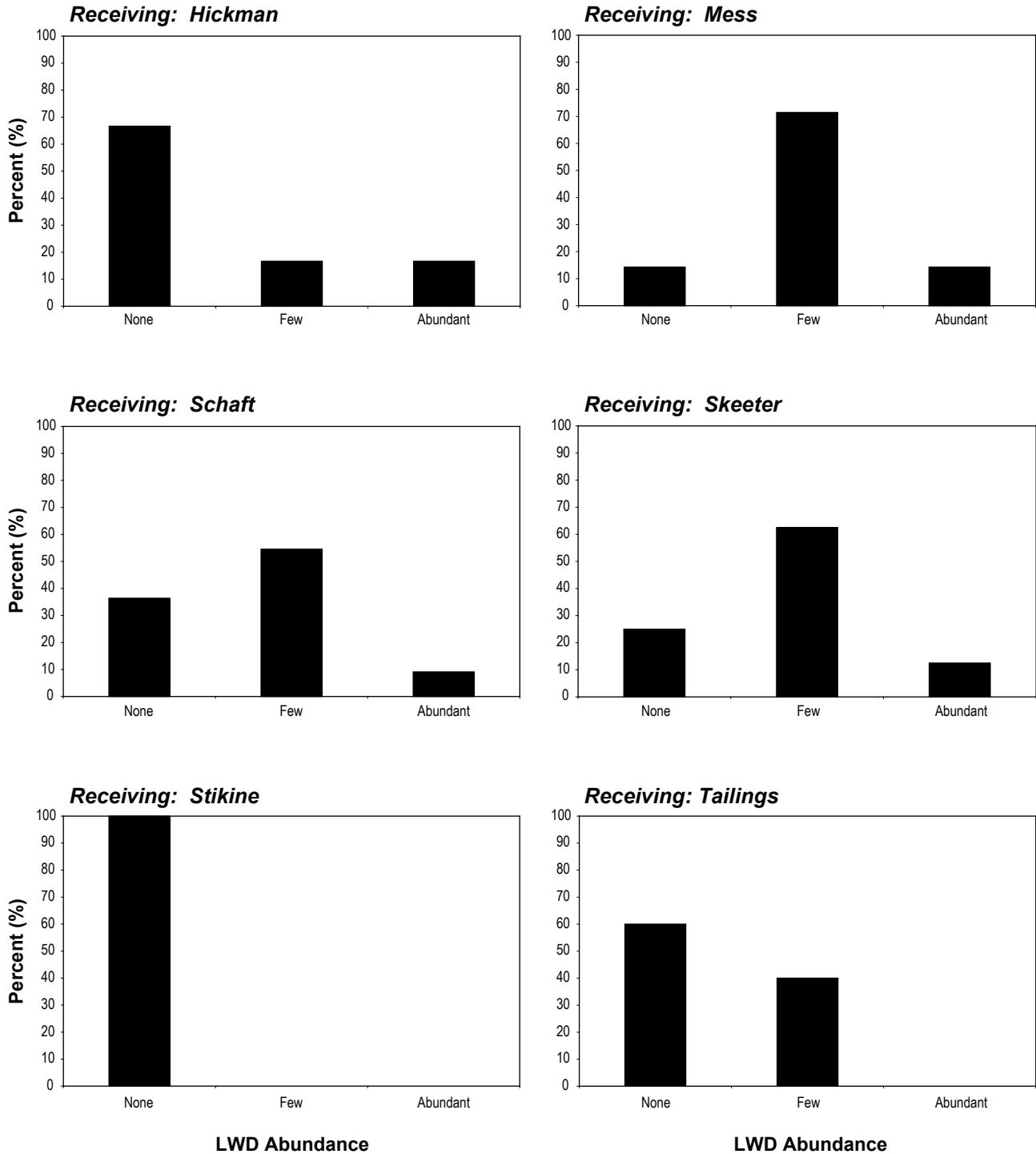
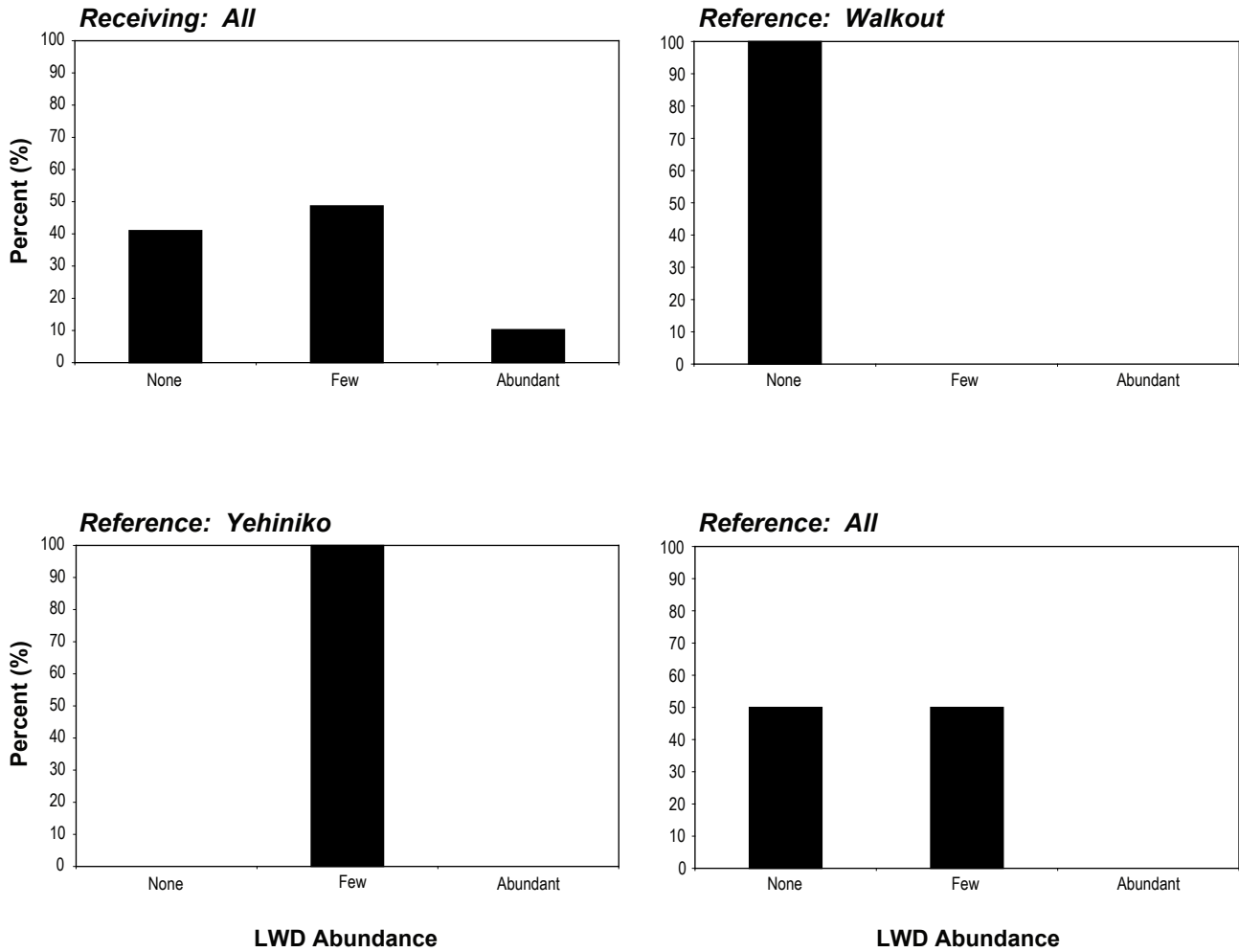


FIGURE 3.2-12a



**Summary of Functional LWD Abundance
for all Streams in the Receiving and
Reference Environment Watersheds, 2007**



LWD Abundance

LWD Abundance

FIGURE 3.2-12b



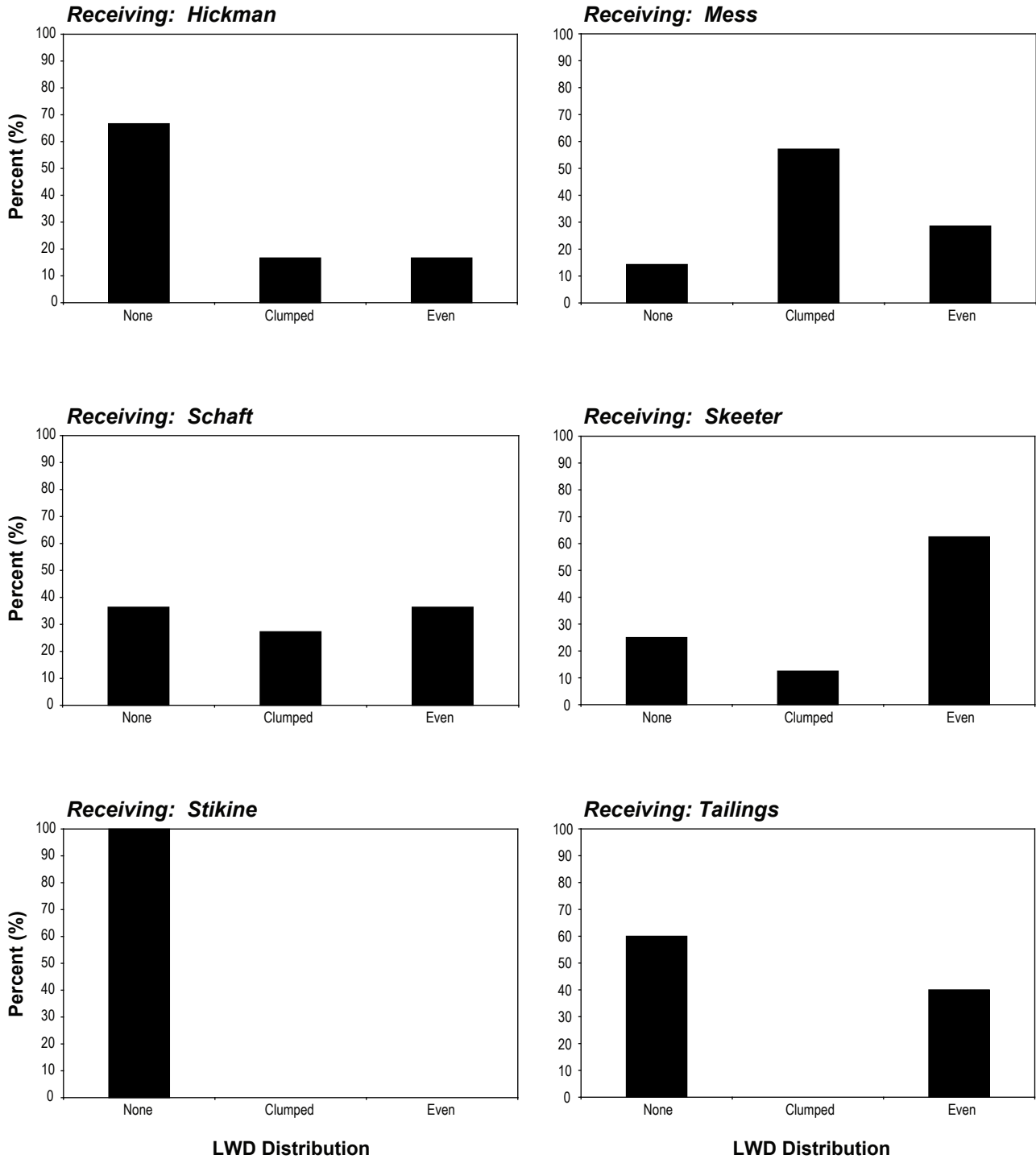
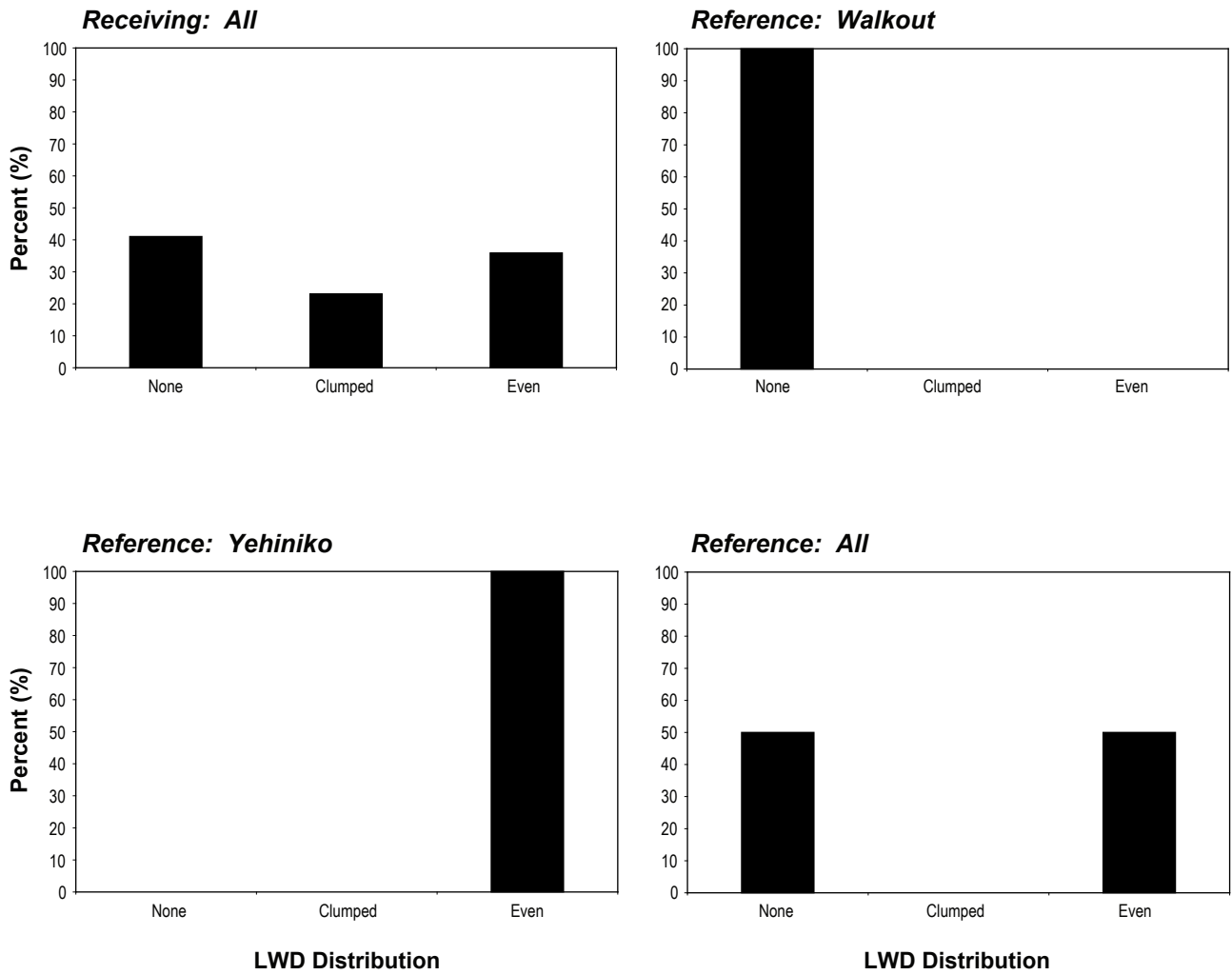


FIGURE 3.2-13a





LWD Distribution

LWD Distribution

FIGURE 3.2-13b



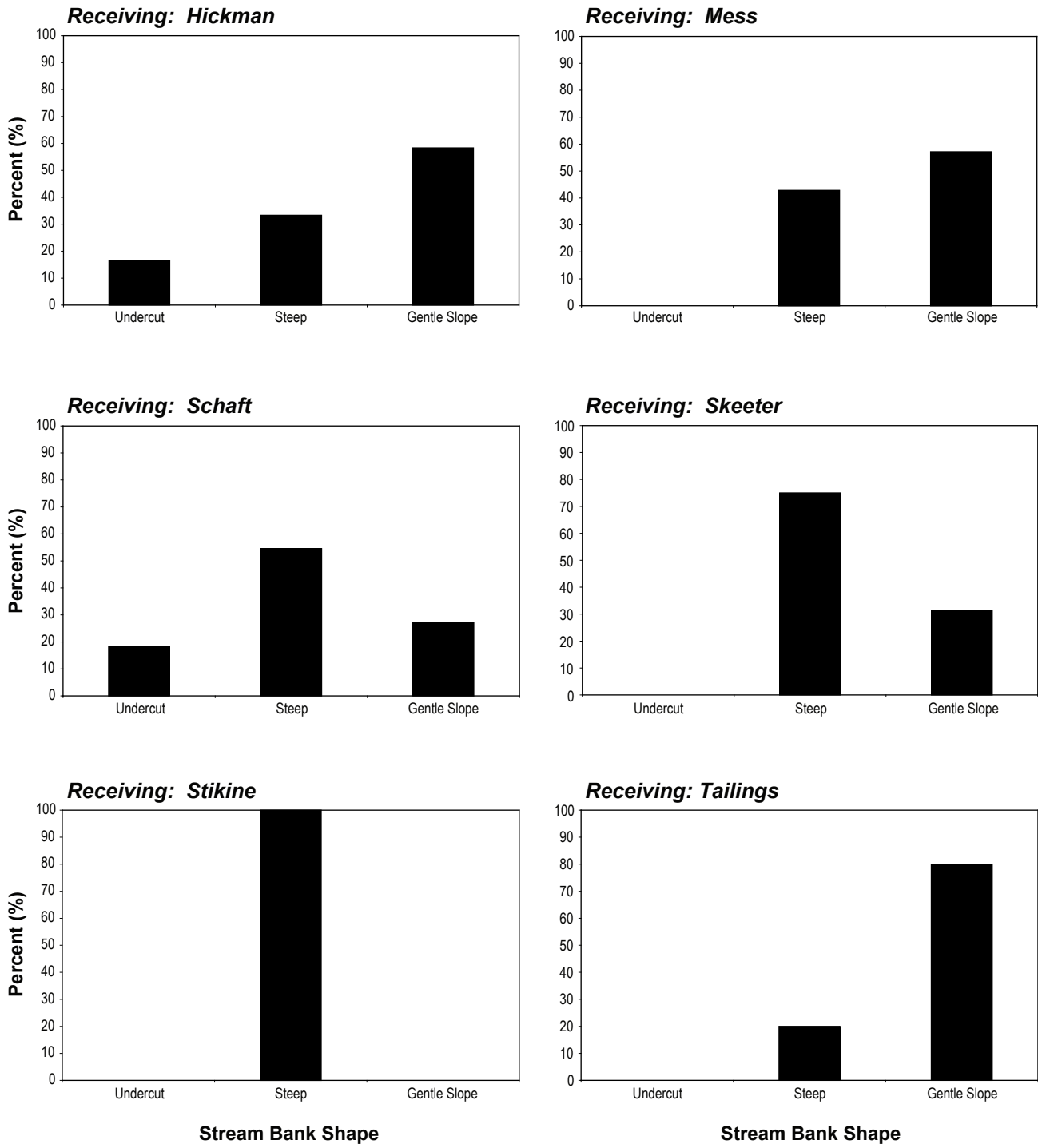
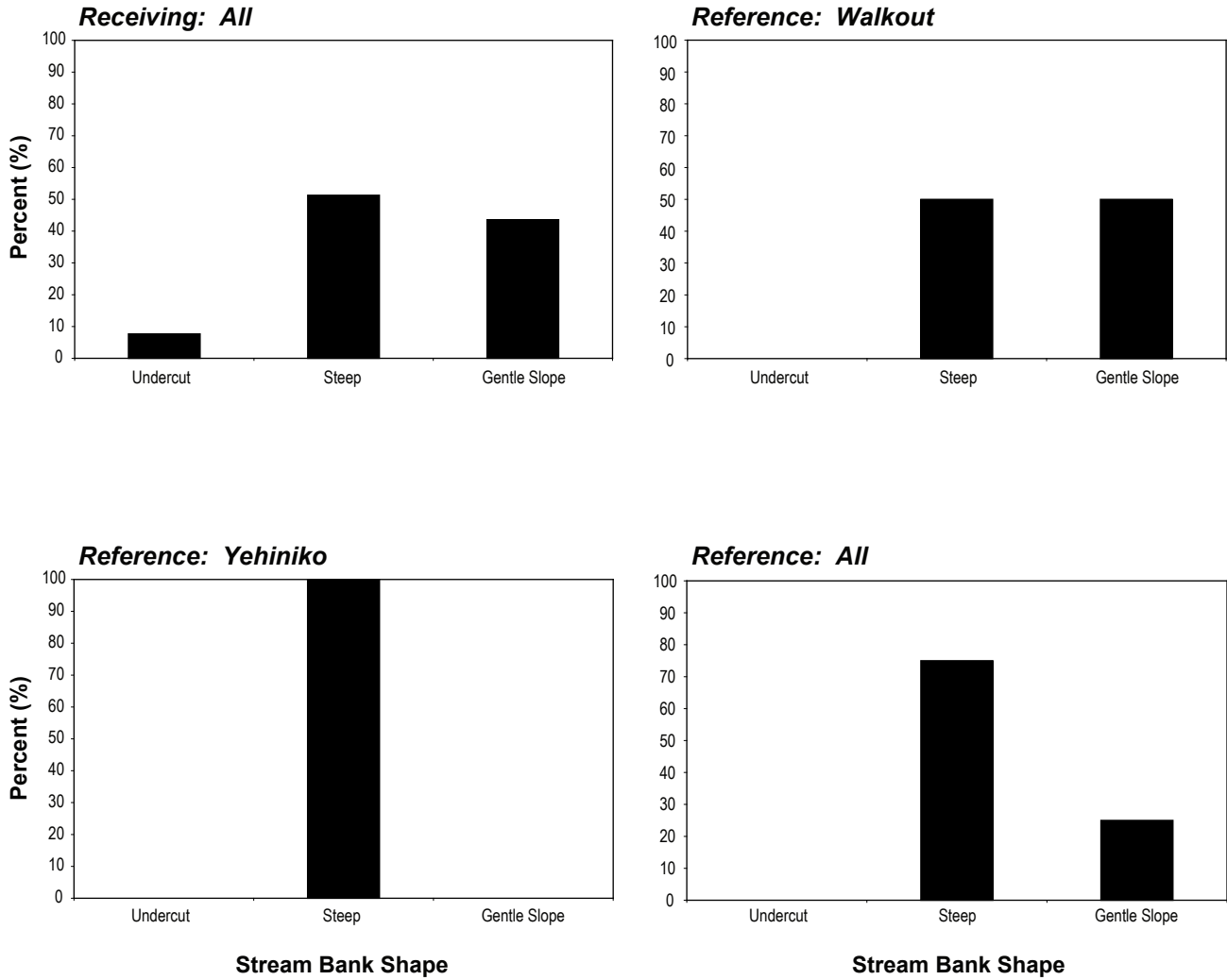


FIGURE 3.2-14a





Stream Bank Shape

Stream Bank Shape

FIGURE 3.2-14b



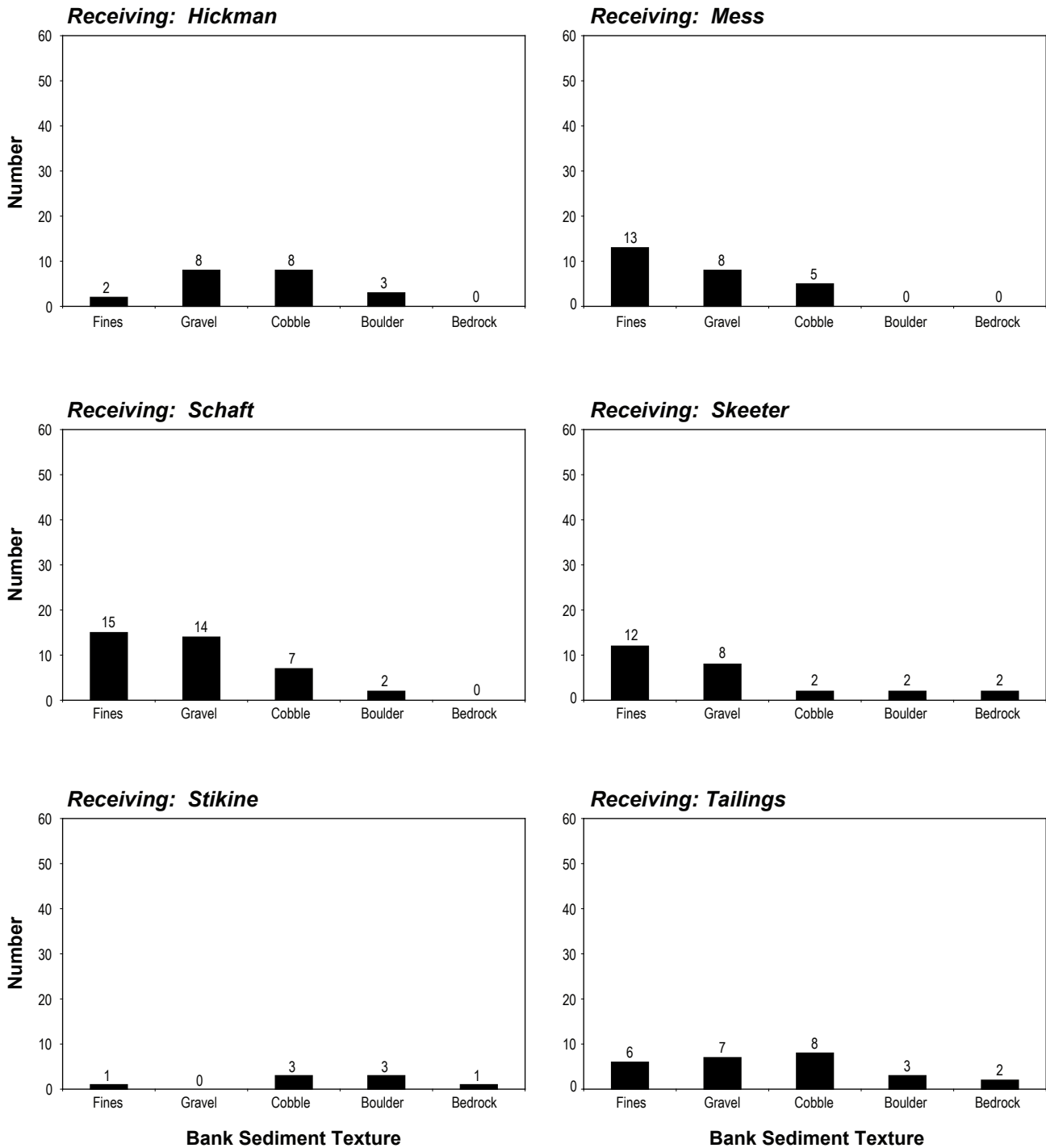


FIGURE 3.2-15a



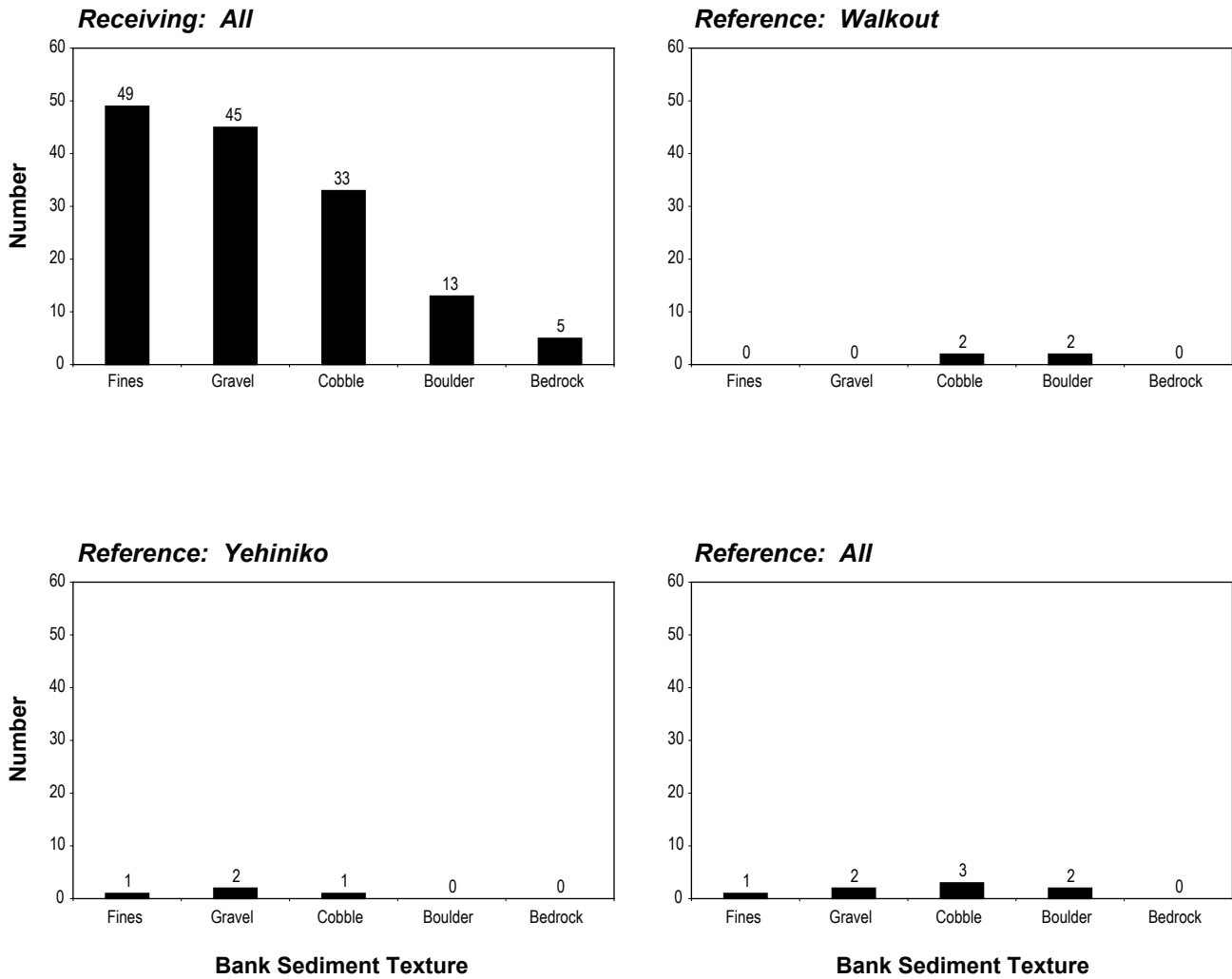
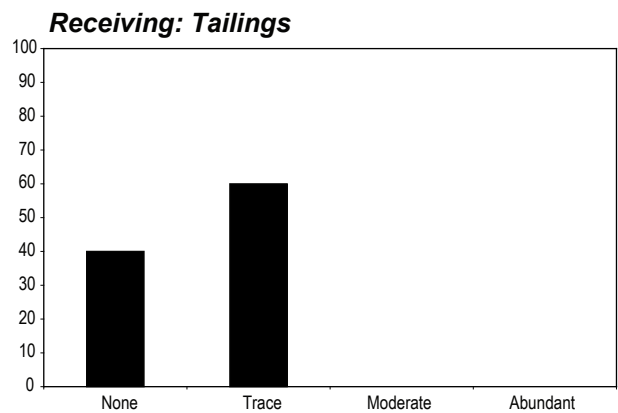
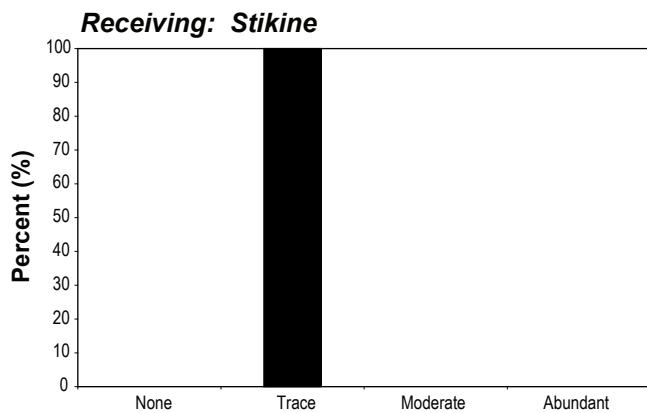
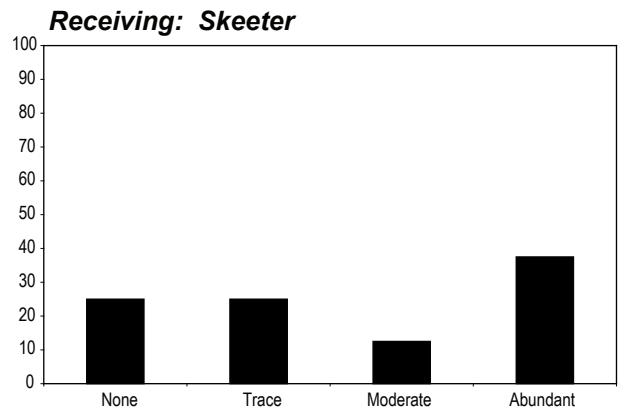
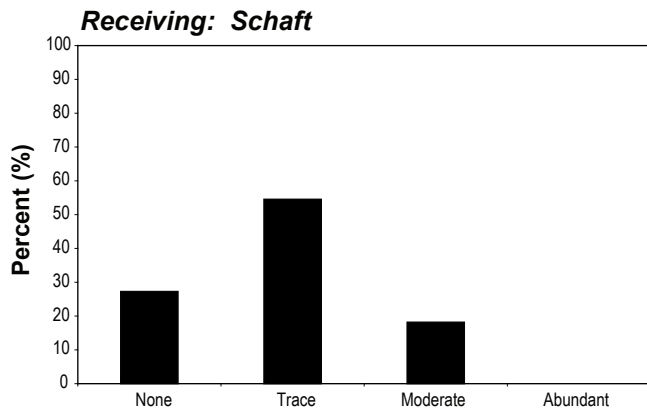
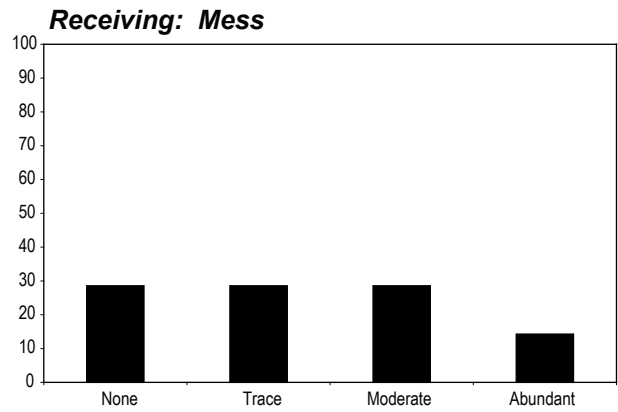
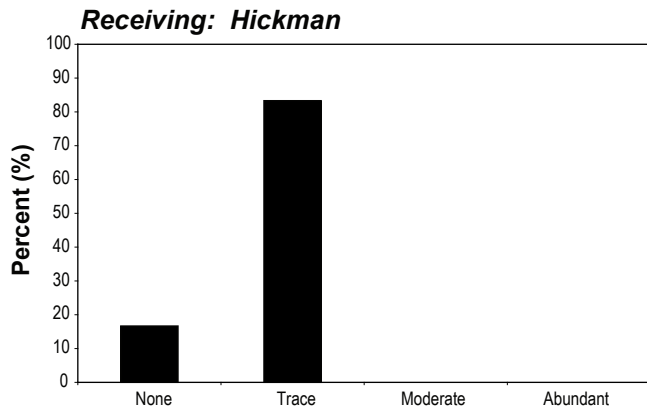


FIGURE 3.2-15b





Total Cover Amount

Total Cover Amount

FIGURE 3.2-16a

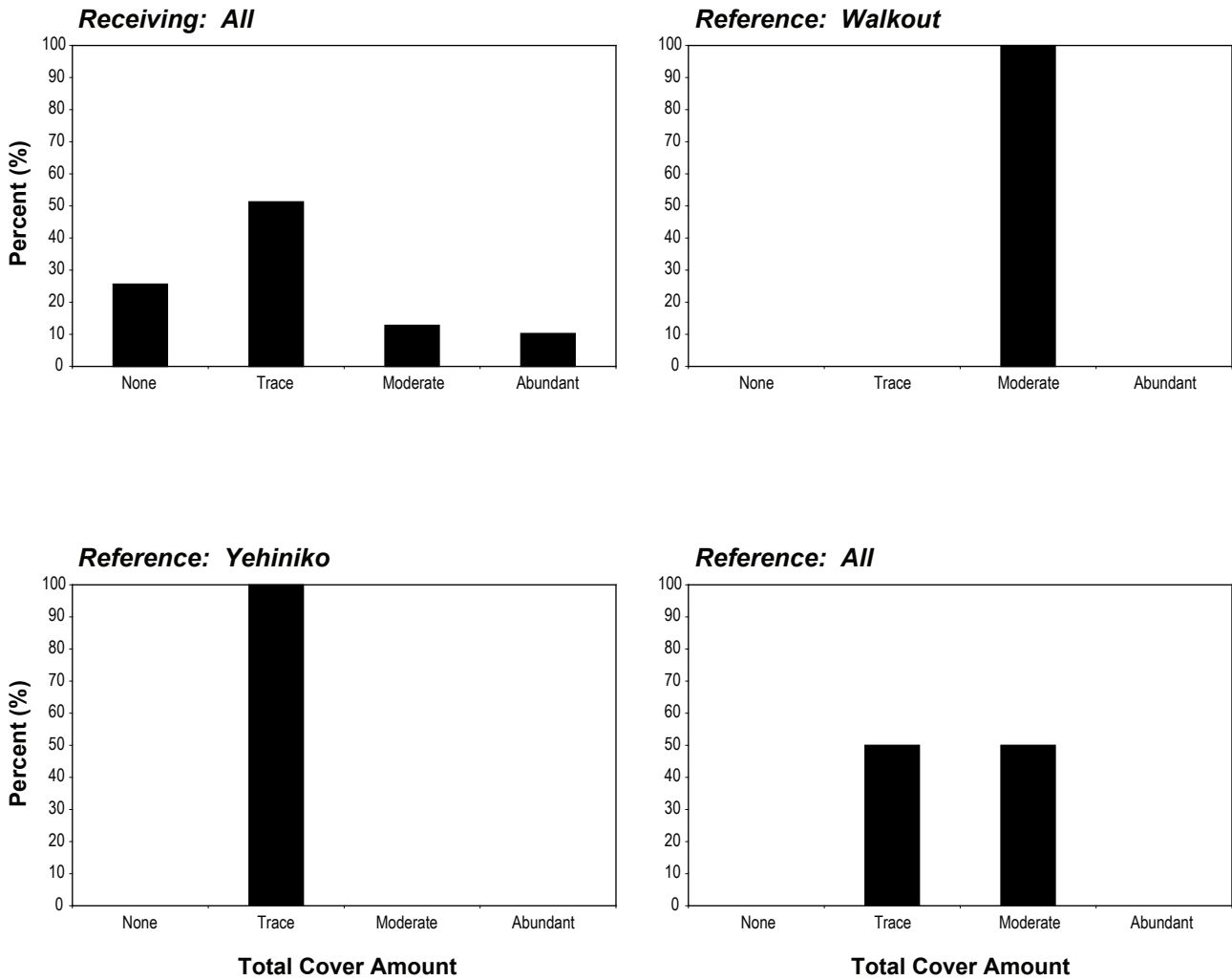
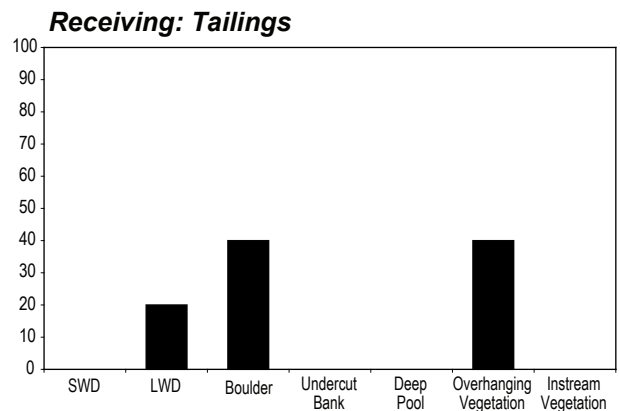
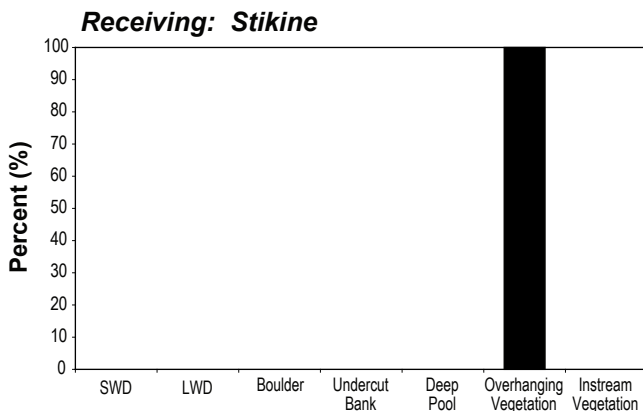
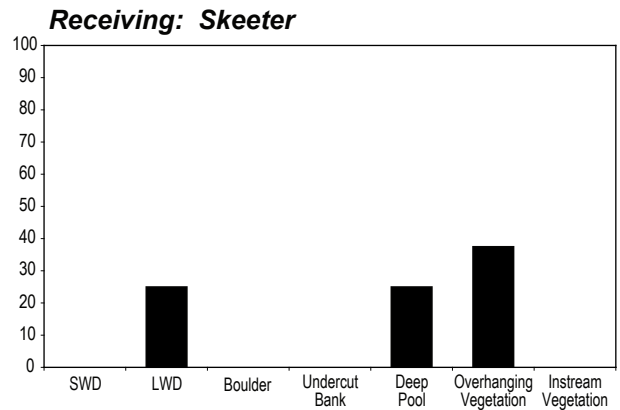
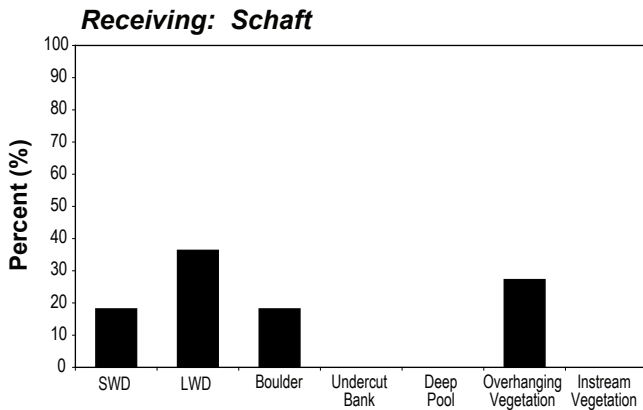
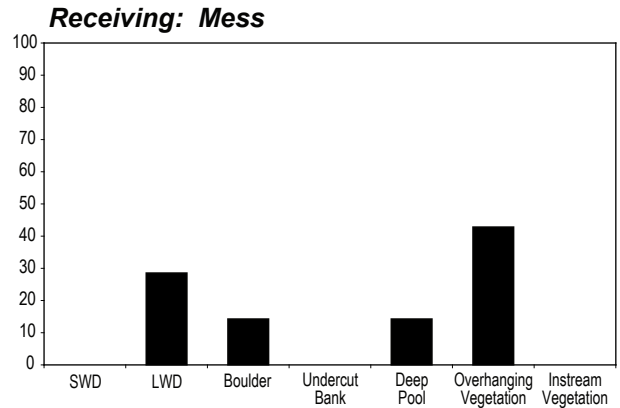
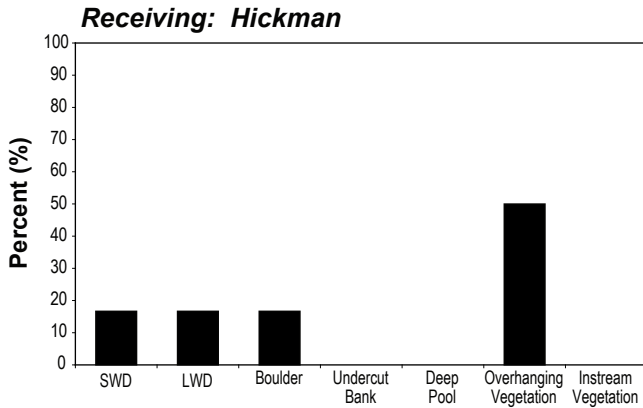


FIGURE 3.2-16b

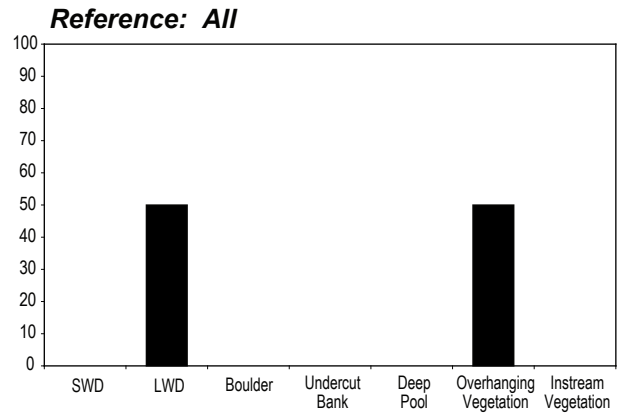
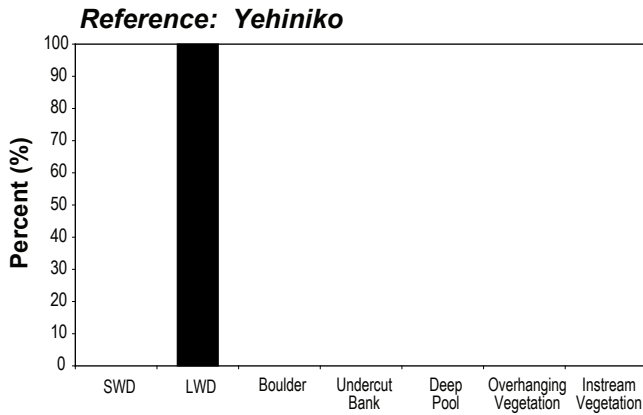
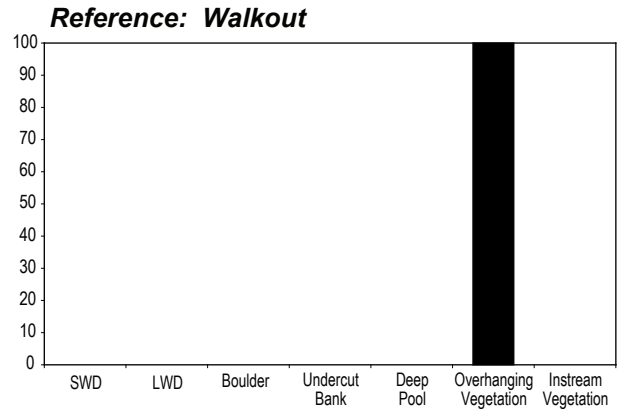
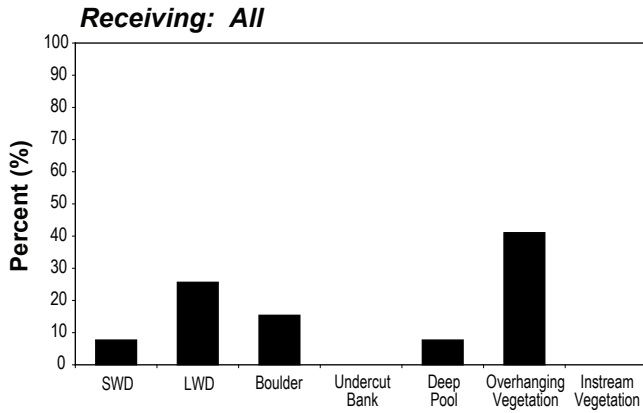




Dominant Cover Type

Dominant Cover Type

FIGURE 3.2-17a

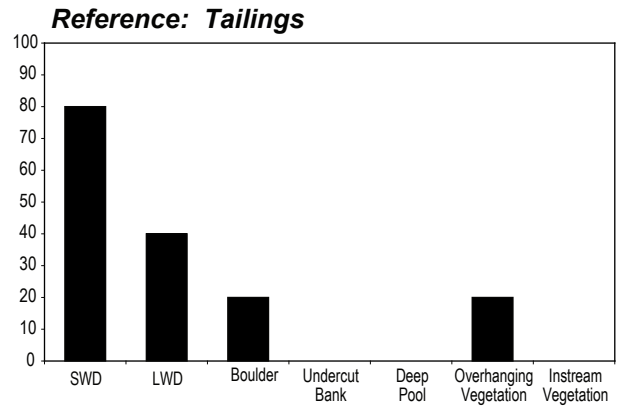
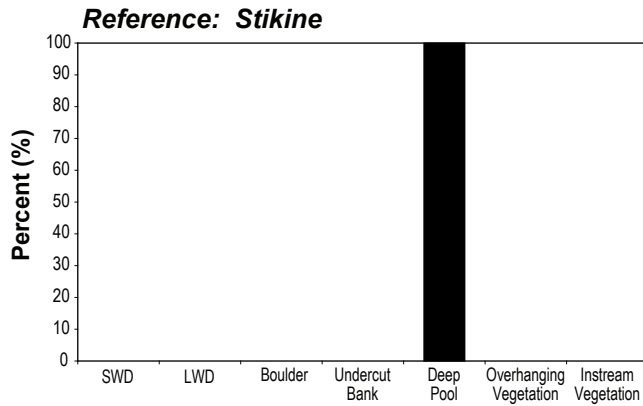
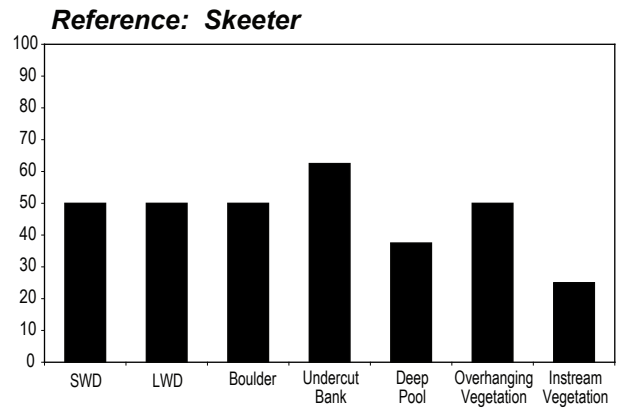
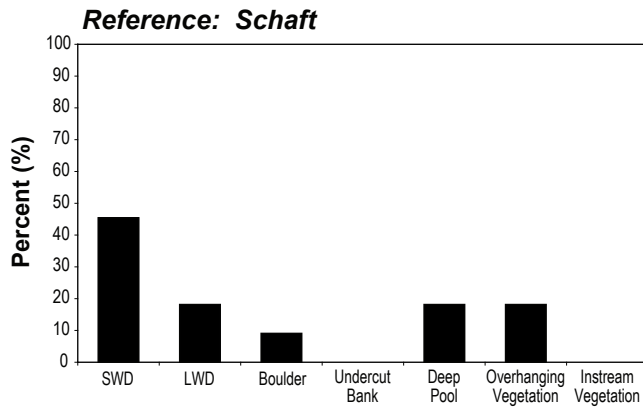
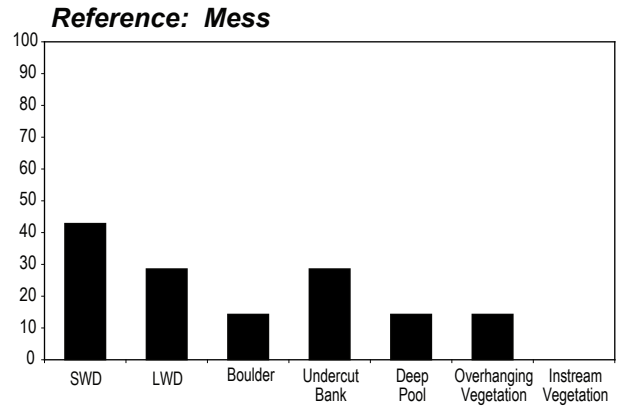
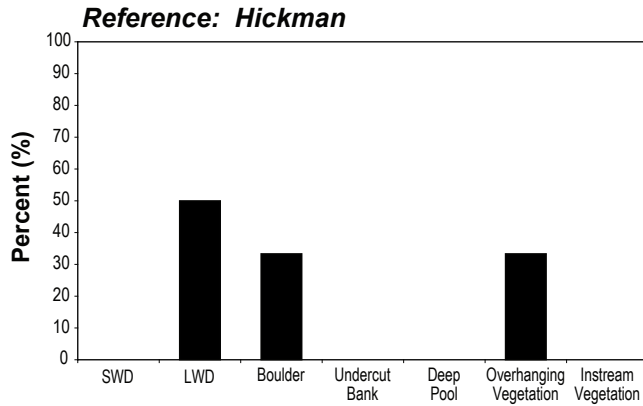


Dominant Cover Type

Dominant Cover Type

FIGURE 3.2-17b

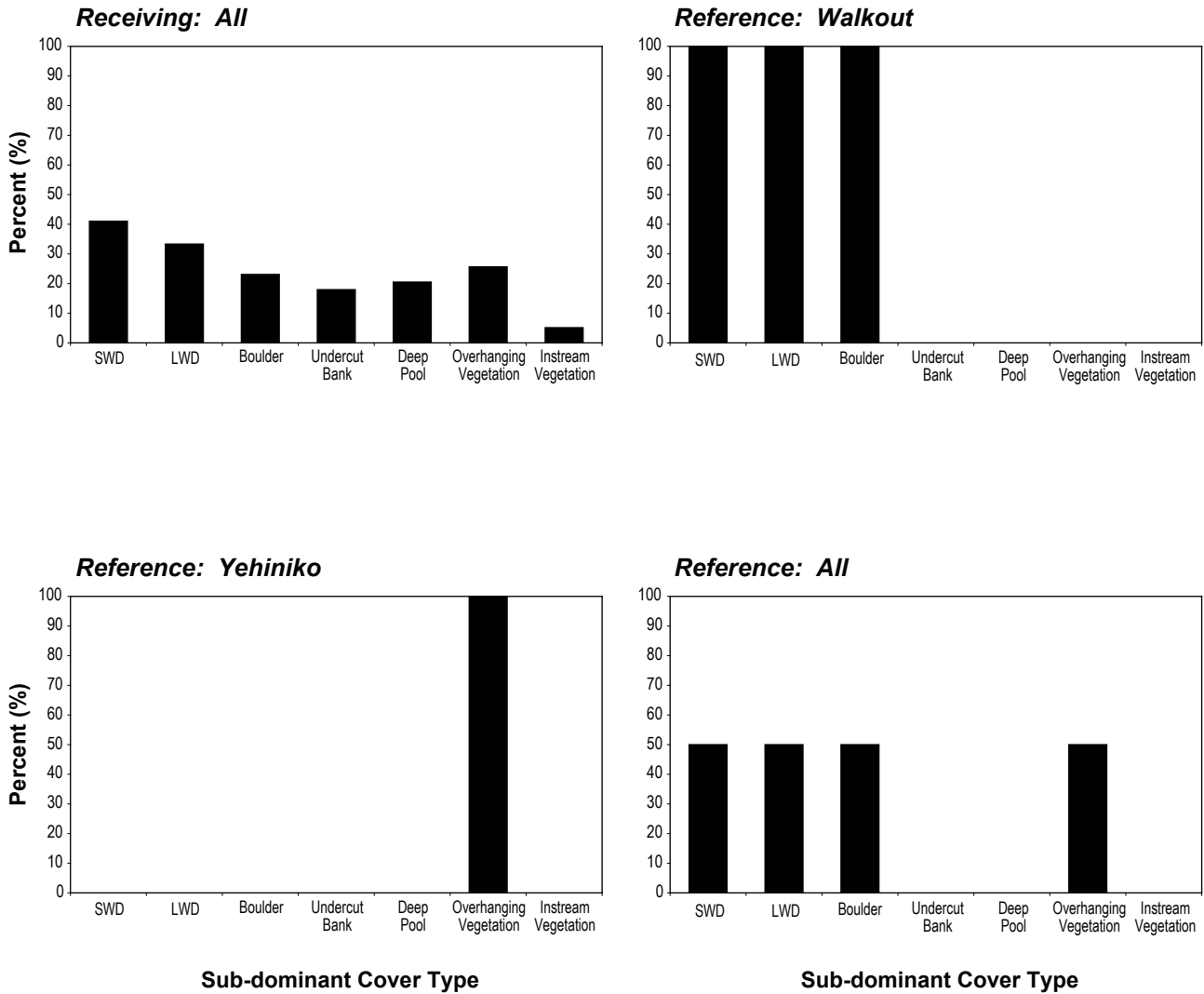




Sub-Dominant Cover Type

Sub-Dominant Cover Type

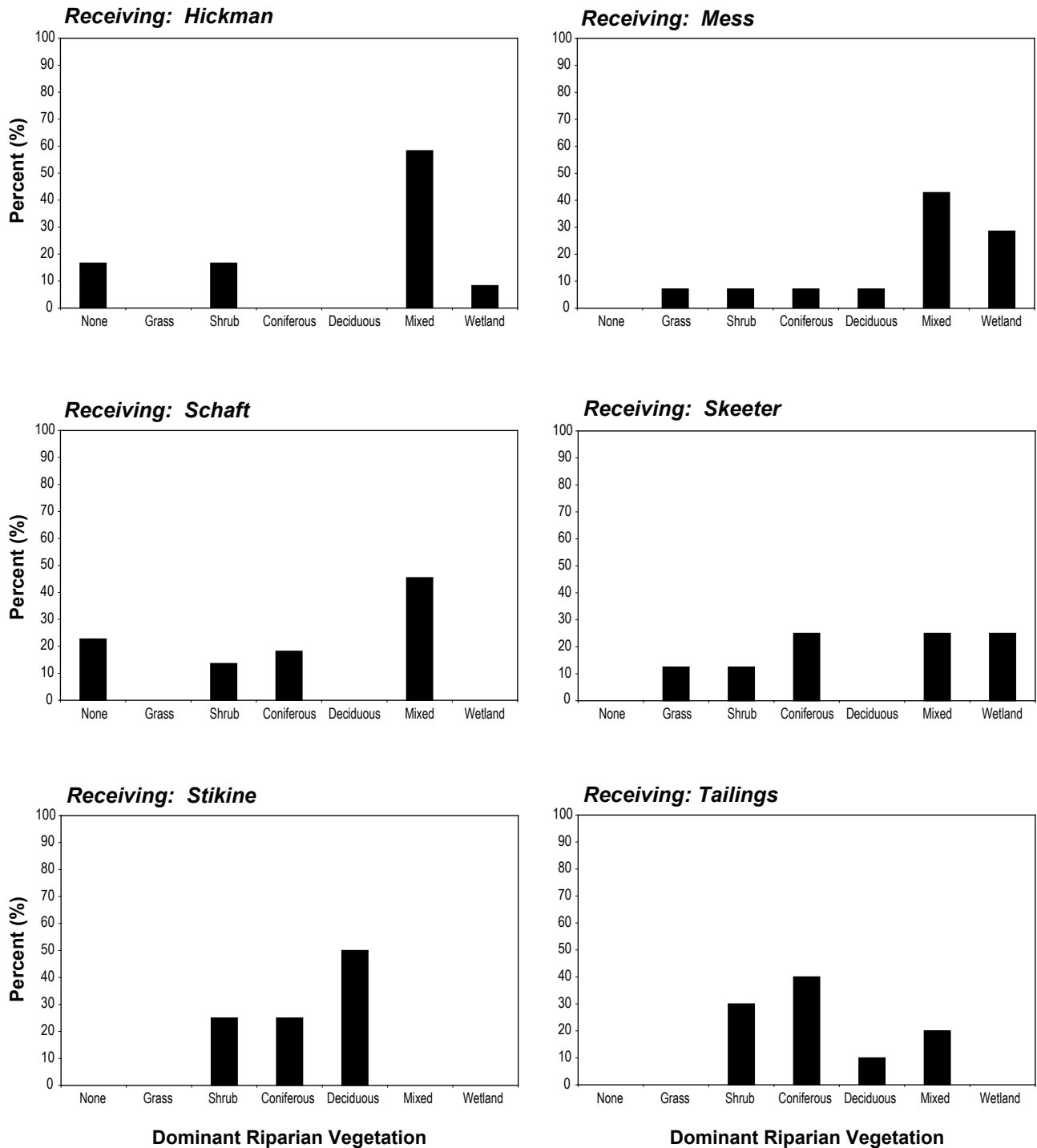
FIGURE 3.2-18a



Sub-dominant Cover Type

Sub-dominant Cover Type

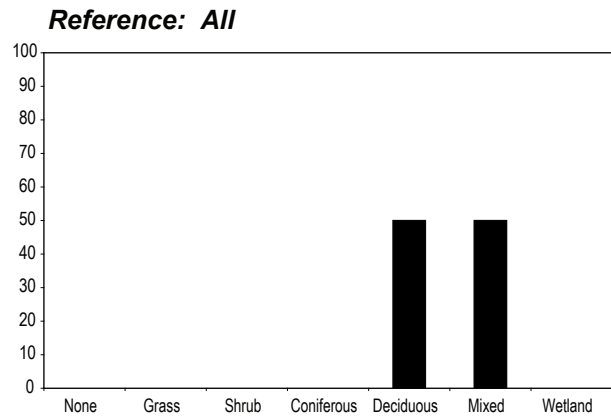
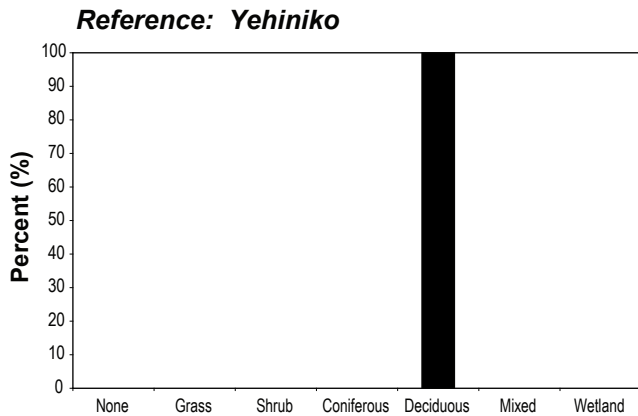
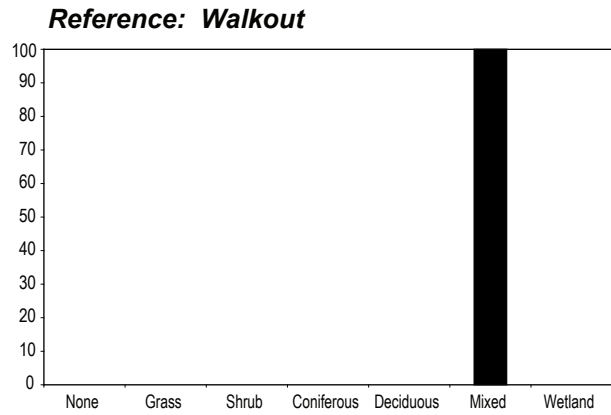
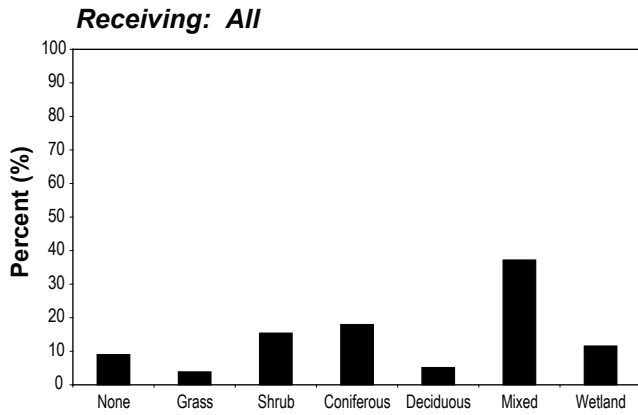
FIGURE 3.2-18b



Dominant Riparian Vegetation

Dominant Riparian Vegetation

FIGURE 3.2-19a



Dominant Riparian Vegetation Type

Dominant Riparian Vegetation Type

FIGURE 3.2-19b



Fish Habitat Suitability

While various species have widely differing habitat requirements, field crews focused on the general habitat requirements of juvenile and adult salmonids because of their abundance in the Project area and their importance to local user groups. Figures 3.2-20a to 3.2-22b present habitat suitability rankings for spawning, rearing and over-wintering habitat for all streams by watershed. Spawning habitat was poor throughout all of the receiving environment watersheds. Spawning habitat quality differed between Reference sites, with Walkout Creek having poor spawning habitat, and Yehiniko Creek having good quality spawning habitat. Rearing habitat was also poor throughout most of the receiving environment watersheds except the Mess and Schaft watersheds, where rearing habitat quality was fair. The reference environment watersheds possessed rearing habitat suitability of poor (*i.e.*, Walkout) and fair (*i.e.*, Yehiniko). Over-wintering habitat quality was poor within all receiving environment watersheds except Mess Watershed, where over-wintering habitat quality was fair. The reference environment watersheds possessed poor over-wintering habitat.

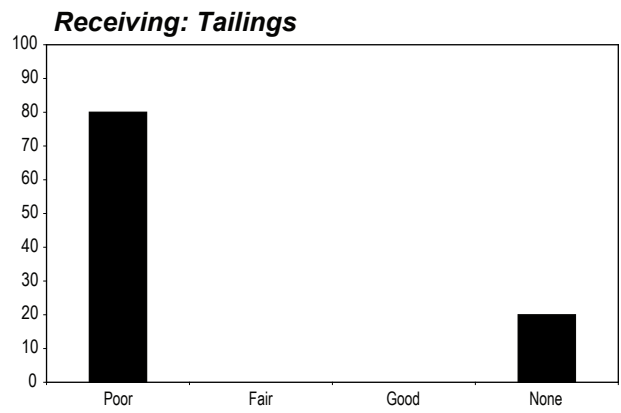
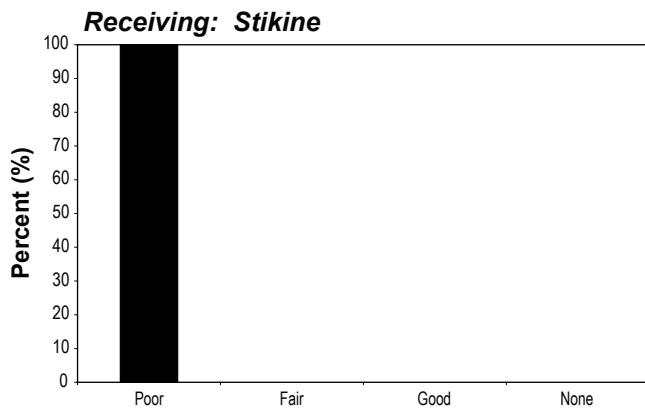
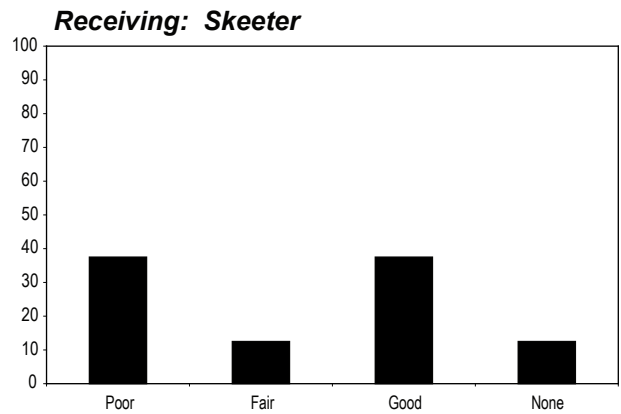
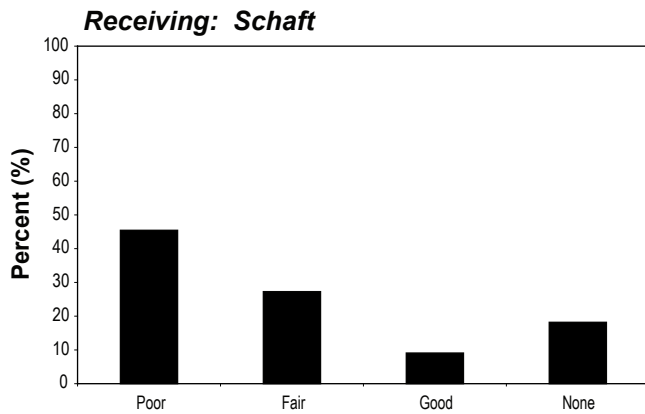
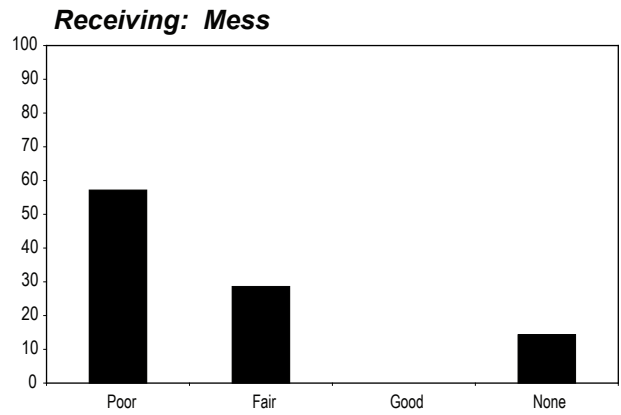
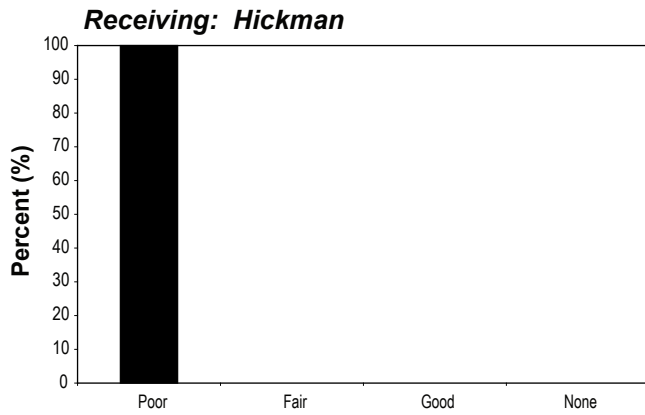
3.2.1.2 Fish Habitat - Detailed

Stream Channel Measurements

Detailed fish habitat assessments were conducted at 19 receiving environment reaches within the Hickman, Mess, Schaft, Skeeter, and Tailings C Creek watersheds in September 2007. Overview fish habitat assessments were conducted in accordance with the *Fish Habitat Assessment Procedures* (Johnston and Slaney, 1996). Detailed fish habitat assessment locations are shown in Figure 2.3-1. Detailed fish habitat assessment details for receiving and reference watershed sites are presented in Appendix 3.2-2. Table 3.2-3 presents a comparison of channel characteristics for all streams by watershed.

**Table 3.2-3
Summary of Channel Characteristics for all Streams in the Receiving Environment Watersheds, 2007**

Characteristic	Receiving Environment				
	Hickman (n = 5)	Mess (n = 23)	Schaft (n = 19)	Skeeter (n = 30)	Tailings (n = 7)
Gradient (%)					
Mean	3.0	1.5	1.5	1.7	2.2
Min	1.5	0.2	0.2	0.0	1.0
Max	4.0	5.5	4.0	5.0	4.0
Wetted Depth (m)					
Mean	0.4	0.4	0.5	0.2	0.5
Min	0.2	0.1	0.1	0.1	0.2
Max	0.6	1.0	1.2	1.1	0.8
Bankfull Depth (m)					
Mean	0.8	1.2	1.4	0.8	1.3
Min	0.6	0.6	0.2	0.3	0.5
Max	1.2	2.5	4.0	2.0	3.0
Wetted Width (m)					
Mean	17.3	7.7	15.8	3.7	12.3
Min	10.2	1.0	3.0	1.0	3.0
Max	28.8	40.0	70.0	12.0	30.0
Bankfull Width (m)					
Mean	21.2	28.0	104.6	11.1	38.2
Min	10.4	8.4	8.0	1.5	6.0
Max	33.0	80.0	220.0	30.0	80.0



Spawning Habitat Suitability

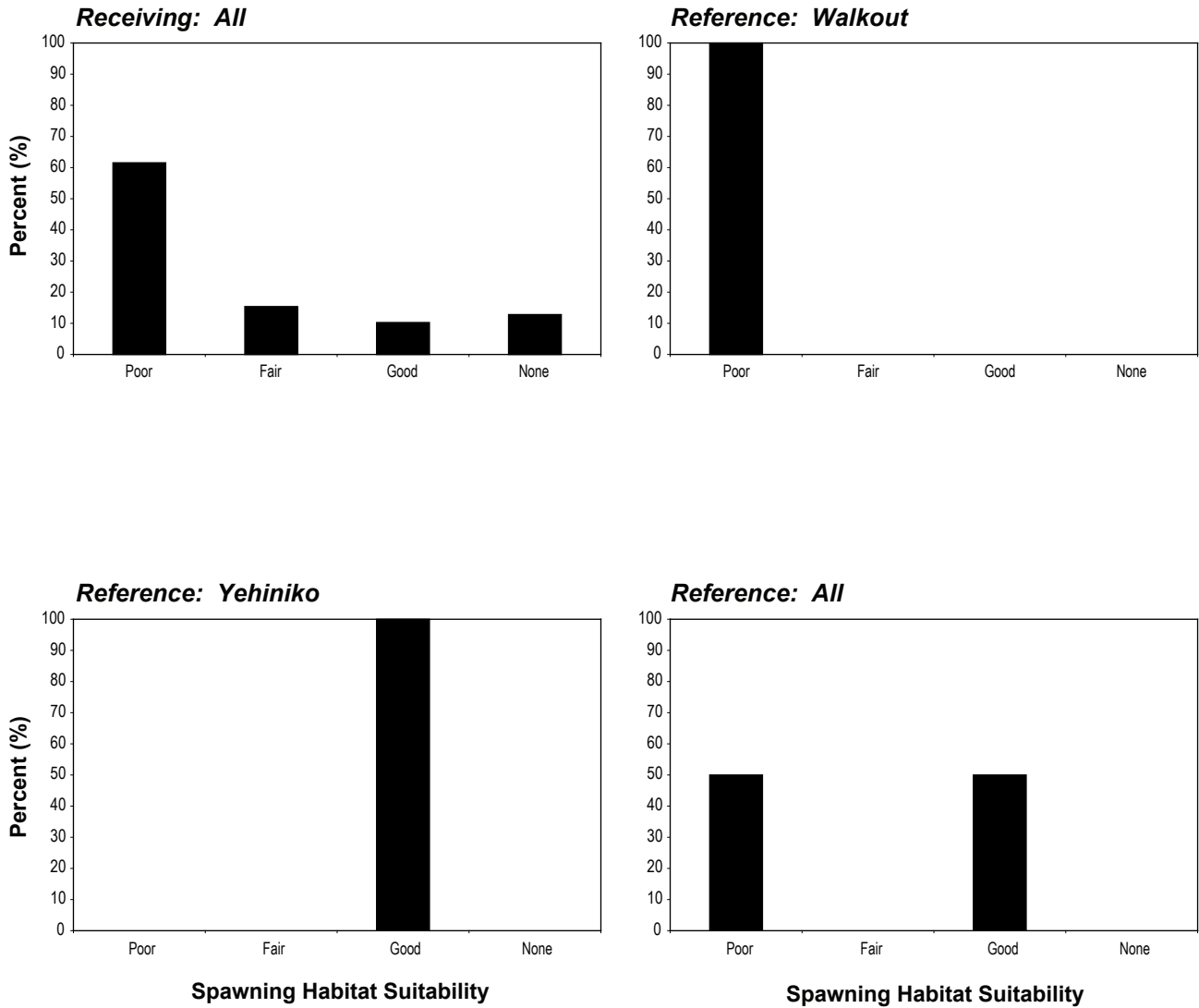
Spawning Habitat Suitability

FIGURE 3.2-20a



**Summary of Spawning Habitat Suitability
for all Streams in the Receiving and
Reference Environment Watersheds, 2007**

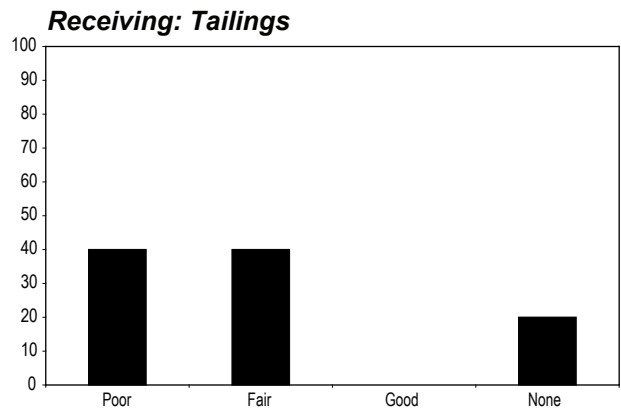
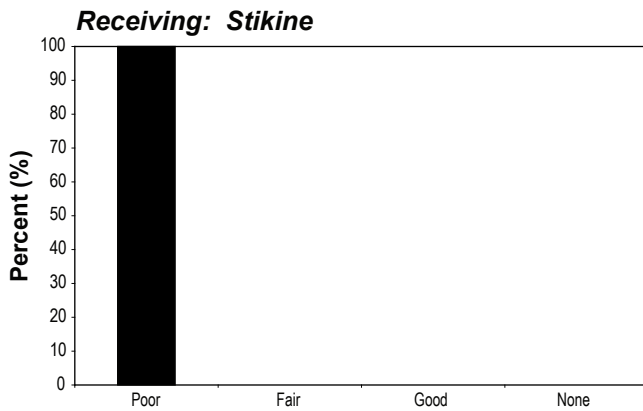
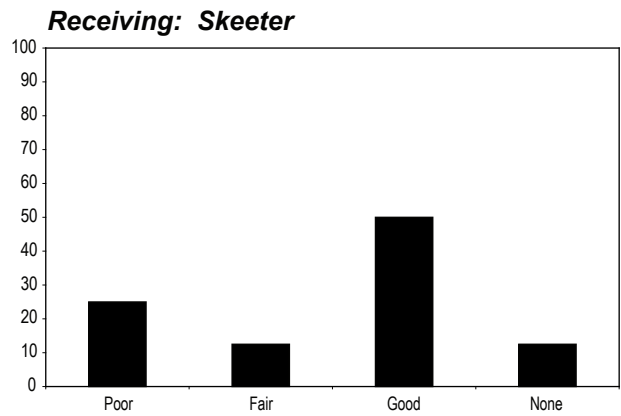
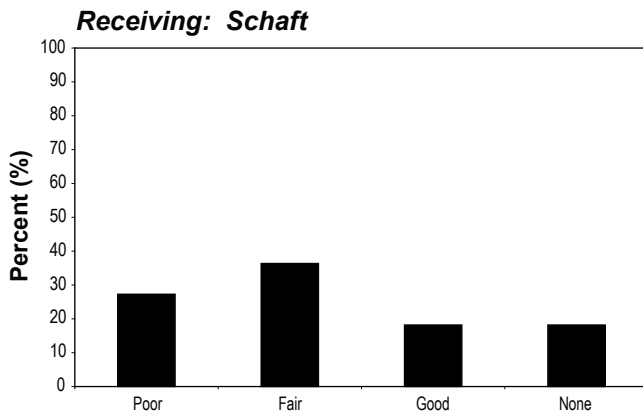
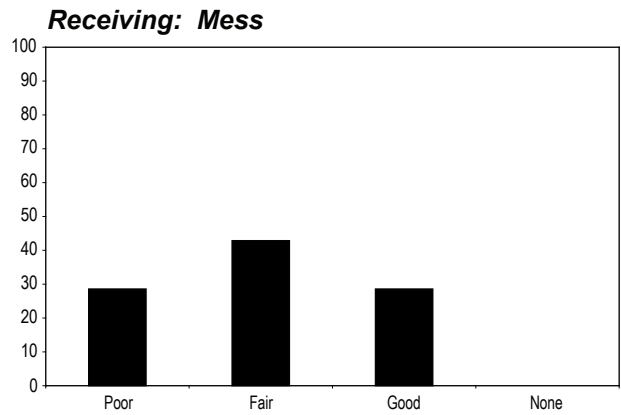
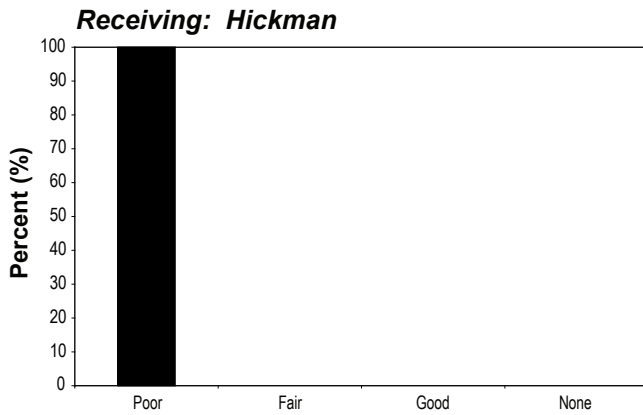




Spawning Habitat Suitability

Spawning Habitat Suitability

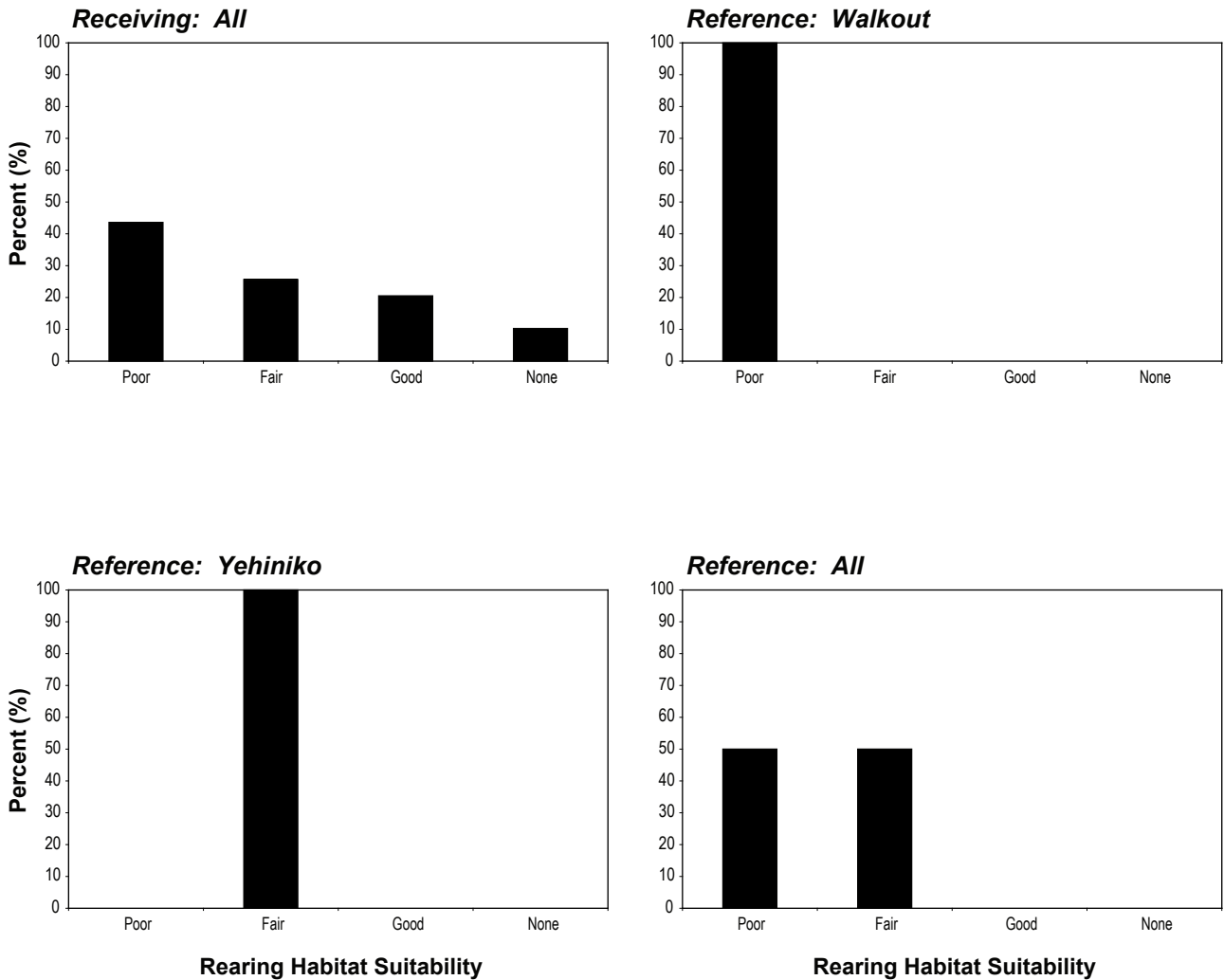
FIGURE 3.2-20b



Rearing Habitat Suitability

Rearing Habitat Suitability

FIGURE 3.2-21a

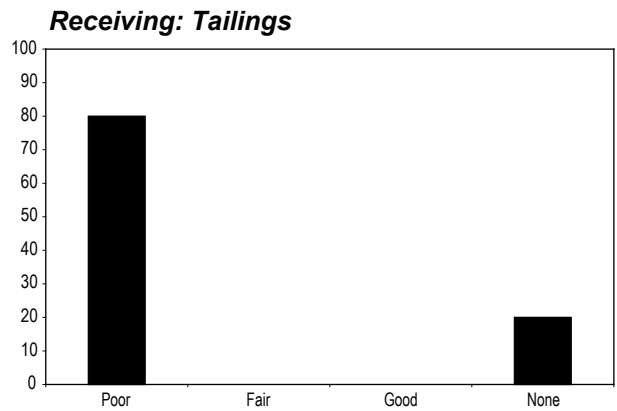
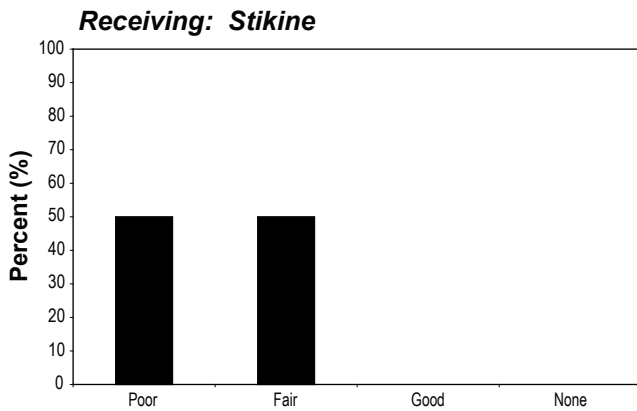
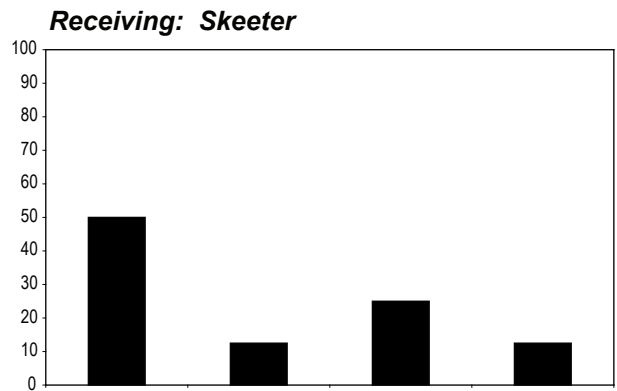
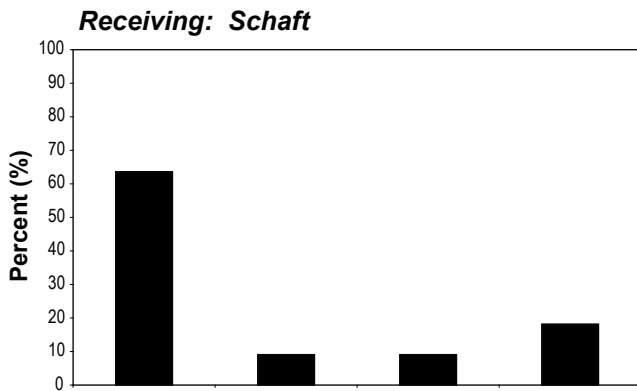
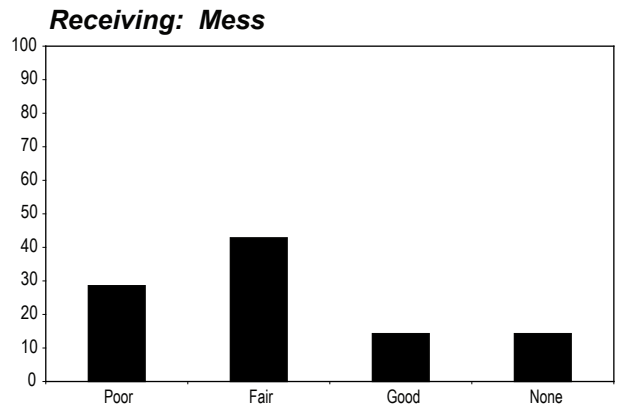
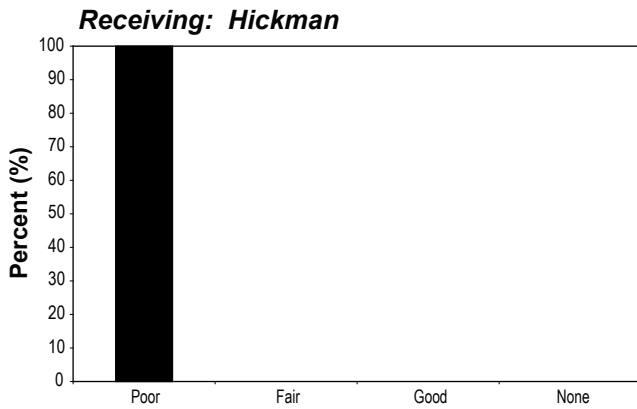


Rearing Habitat Suitability

Rearing Habitat Suitability

FIGURE 3.2-21b





Over-Wintering Habitat Suitability

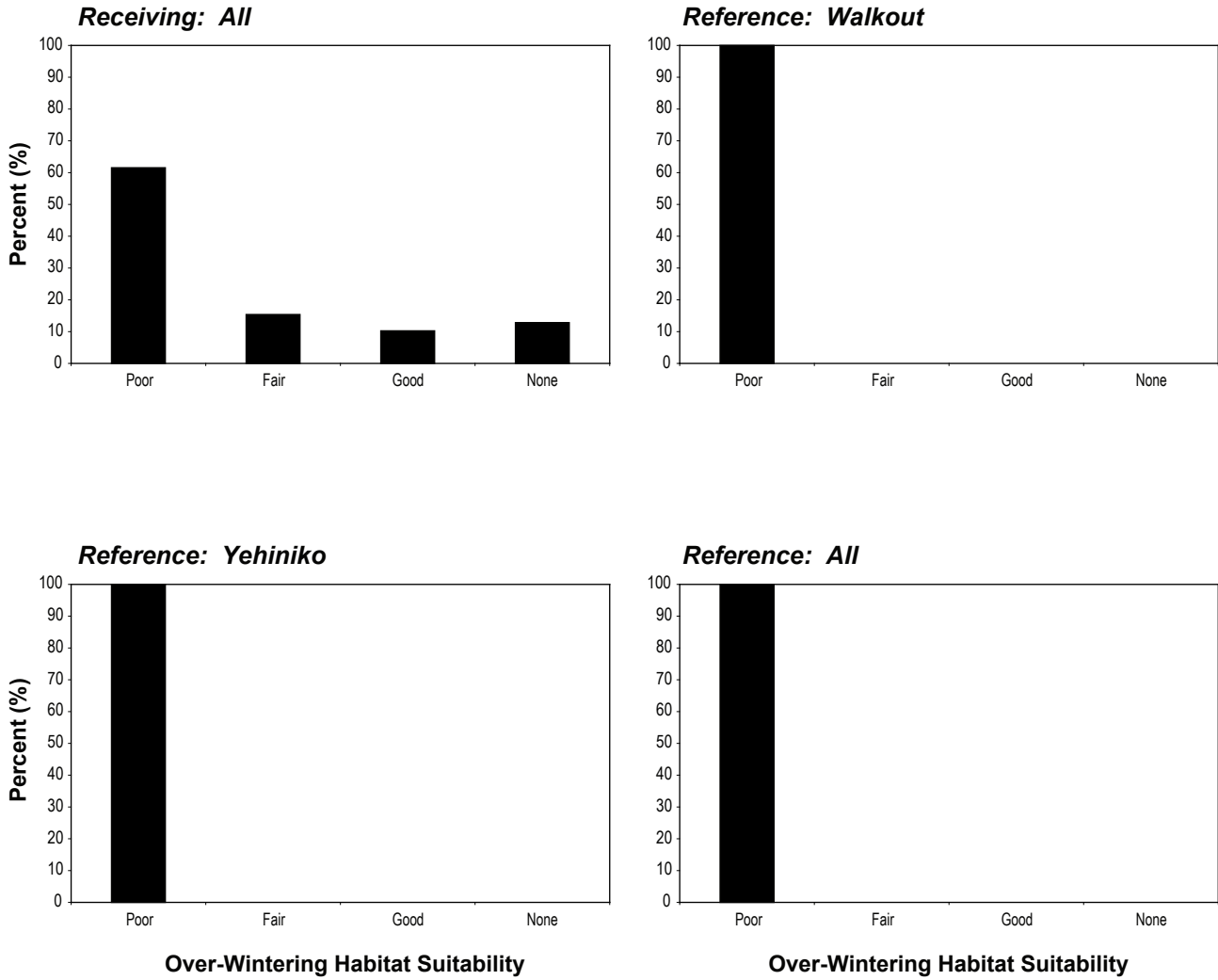
Over-Wintering Habitat Suitability

FIGURE 3.2-22a



Summary of Over-Wintering Habitat Suitability for all Streams in the Receiving and Reference Environment Watersheds, 2007





Over-Wintering Habitat Suitability

Over-Wintering Habitat Suitability

FIGURE 3.2-22b

Habitat and Cover

Table 3.2-4 presents a comparison of habitat characteristics for all streams by watershed. Cascades were the most common habitat unit within all receiving environment watershed, except the Skeeter Watershed, where pools were the most common habitat unit. The dominance of cascade habitat units is expected since the most dominant or prevalent bed substrate was cobble. Sand was the most dominant substrate in the Schaft Watershed because of its glacial origin. The dominance of pool habitat units is expected in the Skeeter Watershed because it is a smaller watershed, with low gradient and gravel dominated channels. The least common substrate was bedrock in all watersheds.

Overhanging vegetation was the dominant cover type, followed by boulders and pools in the Hickman Watershed. Pools were the most common cover in the Mess, Schaft and Skeeter watersheds. Boulders were the most common cover in the Tailings C Watershed. The least common cover type was instream vegetation in all watersheds, which reflects the cold turbid nature of these watersheds. LWD cover was low within all watersheds, which reflects the low abundance present within the watersheds (Figures 3.2-9a and 3.2-9b). Riparian canopy cover was low in all watersheds (*i.e.*, < 8%), except in the Mess Watershed (24%). Riparian bank cover varied between watersheds (*i.e.*, 18% to 87%). Skeeter Watershed had the highest riparian cover and Hickman Watershed had the lowest riparian cover.

**Table 3.2-4
Summary of Habitat Characteristics for all Streams in the Receiving Environment Watersheds, 2007**

Characteristic	Receiving Environment				
	Hickman (n = 5)	Mess (n = 23)	Schaft (n = 19)	Skeeter (n = 30)	Tailings (n = 7)
Habitat Units					
% Cascade	88.8	45.1	50.4	29.1	90.1
% Glide	0.0	32.7	24.3	1.4	0.0
% Pool	0.0	16.6	7.3	42.0	9.9
% Riffle	11.2	13.4	17.6	29.7	0.0
Bed Material					
% Sand	13.0	32.3	33.6	14.1	15.0
% Gravel	38.0	23.1	29.7	50.4	14.2
% Cobble	41.0	35.6	28.8	24.2	32.5
% Boulder	8.0	11.1	7.4	11.3	38.3
% Bedrock	0.0	0.0	0.0	0.0	0.0
Cover					
% Pool	4.0	36.1	27.4	33.0	0.0
% Boulder	10.0	13.5	0.2	11.3	90.0
% Instream Vegetation	0.0	0.2	0.0	2.0	0.0
% Overhanging Vegetation	63.4	14.4	5.4	13.8	0.0
% Undercut Bank	0.0	1.3	0.8	4.5	0.0
% LWD	1.0	5.6	2.5	3.2	5.0
% SWD	1.0	7.7	9.0	2.2	5.0
Riparian Cover					
% Canopy Cover	8.2	23.6	4.3	5.6	2.0
% Left Bank Cover	18.0	85.2	46.0	83.4	70.0
% Right Bank Cover	50.2	70.0	26.7	87.4	20.0

3.2.1.3 Fish Community

Species Composition and CPUE

Fish sampling was conducted at 15 receiving environment reaches (25 sites) within the Hickman, Mess, Schaft, Skeeter, Tailings C Creek watersheds in June and September 2007. In addition, fish sampling was conducted at two reference environment reaches (two sites) within Walkout and Yehiniko Creek watersheds in June and September 2007.

Sampling effort and fish catch data is presented in Appendix 3.2-3 for receiving and reference environment watersheds. Fish biological data for receiving and reference environment watersheds are presented in Appendix 3.2-4. Individual FDIS fish sampling site cards are presented in Appendix 3.2-5.

Table 3.2-5 presents the known fish species presence/distribution for all streams by watershed. Rainbow trout was the only fish species captured, indicating low species richness for the receiving environment watersheds. Species composition and geographic distribution is likely limited in these watersheds due to an 11.7 km long canyon and a 6 m falls, both located on the mainstem of Mess Creek. It is not known whether the rainbow trout in the watershed are native or introduced, but it is likely that the barriers on Mess Creek prevent other fish species from accessing the area. In contrast, reference environment watersheds (*i.e.*, Yehiniko Watershed) possessed a more diverse species composition.

Table 3.2-6 summarizes known fish bearing reaches for all streams by watershed. All reaches in the Mess Watershed were fish bearing. All reaches in the Hickman Watershed were non-fish bearing. The upper reaches of Schaft Creek, upstream of SC3, were non-fish bearing. Only SKC1 reach of Skeeter Watershed was fish bearing. The upper reaches of Tailings C Creek upstream of site TC1, were non-fish bearing. All reference environment watershed reaches are fish bearing.

**Table 3.2-5
Fish Species Present within Receiving and Reference Environment Watersheds, 2007**

Stream Name	Species				
	Rainbow Trout	Coho Salmon	Slimy Sculpin	Dolly Varden	Mountain Whitefish
<i>Receiving Environment</i>					
Hickman Creek	-	-	-	-	-
Mess Creek	X	-	-	-	-
Schaft Creek	X	-	-	-	-
Skeeter Creek	X	-	-	-	-
Tailings C Creek	X	-	-	-	-
<i>Reference Environment</i>					
Walkout Creek	X	-	-	-	-
Yehiniko Creek	X	X	X	X	X

Dashes indicate no data available
X' indicates capture of fish species in 2007

**Table 3.2-6
Fish Bearing Reach Summary within Receiving and Reference
Environment Watersheds, 2007**

Watershed	Total Number of Reaches	Fish Bearing Reaches		Non-Fish Bearing Reaches	
		Number	Site Names	Number	Site Names
Receiving Environment					
Hickman Creek	3	0	-	3	HC1, HC2, HC3
Mess Creek	4	4	MC1, MC2, MC5, MC10	0	-
Schaft Creek	6	3	SC4, SC7, SC5	3	SC1, SC6, SC3
Skeeter Creek	4	1	SKC1	3	SKC2, SKC3, MT1
Tailings C Creek	3	2	TC3	1	TC1, TC2
Reference Environment					
Walkout Creek	1	1	W2	0	-
Yehiniko Creek	1	1	Y1	0	-

Dashes indicate no data available

Table 3.2-7 and Figure 3.2-23 summarize sampling effort, catch and CPUE for all streams by watershed. In total, 16,882 seconds of electrofishing effort was exerted on streams within receiving environment watersheds, and a total of 93 rainbow trout were captured. Eight fish were captured within reference environment watersheds. No fish were captured in the Hickman Watershed. The overall mean rainbow trout CPUE for all sites (with fish caught) in receiving environment watersheds was 0.55 fish/100 s. The overall mean rainbow trout CPUE for all sites (with fish caught) in reference environment watersheds was 0.71 fish/100 s.

Mean rainbow trout CPUE differed significantly between sites (ANOVA, $F_{5,15} = 3.52$, $P < 0.05$) (Table 3.2-7). Rainbow trout CPUE was significantly higher in the Schaft Watershed than in the Tailings C Watershed. However, Skeeter Watershed had the greatest rainbow trout CPUE at 1.25 fish/100 s, while Schaft Watershed had the second largest rainbow trout CPUE at 1.16 fish/100 s between all receiving environment watersheds. Reference environment watershed, Walkout Watershed, rainbow trout CPUE was greater than any of the receiving environment watersheds.

Length, Weight and Condition

Table 3.2-8 summarizes length, weight and condition data for fish captured in the receiving and reference environment watersheds. Rainbow trout length and weight data from the Walkout and Yehiniko reference environment watersheds were pooled for statistical analysis due to low sample size.

There was a significant difference in rainbow trout length between Skeeter Watershed and all other receiving and reference environment watersheds. Rainbow trout from Skeeter Watershed were significantly shorter than rainbow trout from all other receiving and reference environment watersheds (ANOVA; $F_{4,94} = 6.35$, $P < 0.0001$).

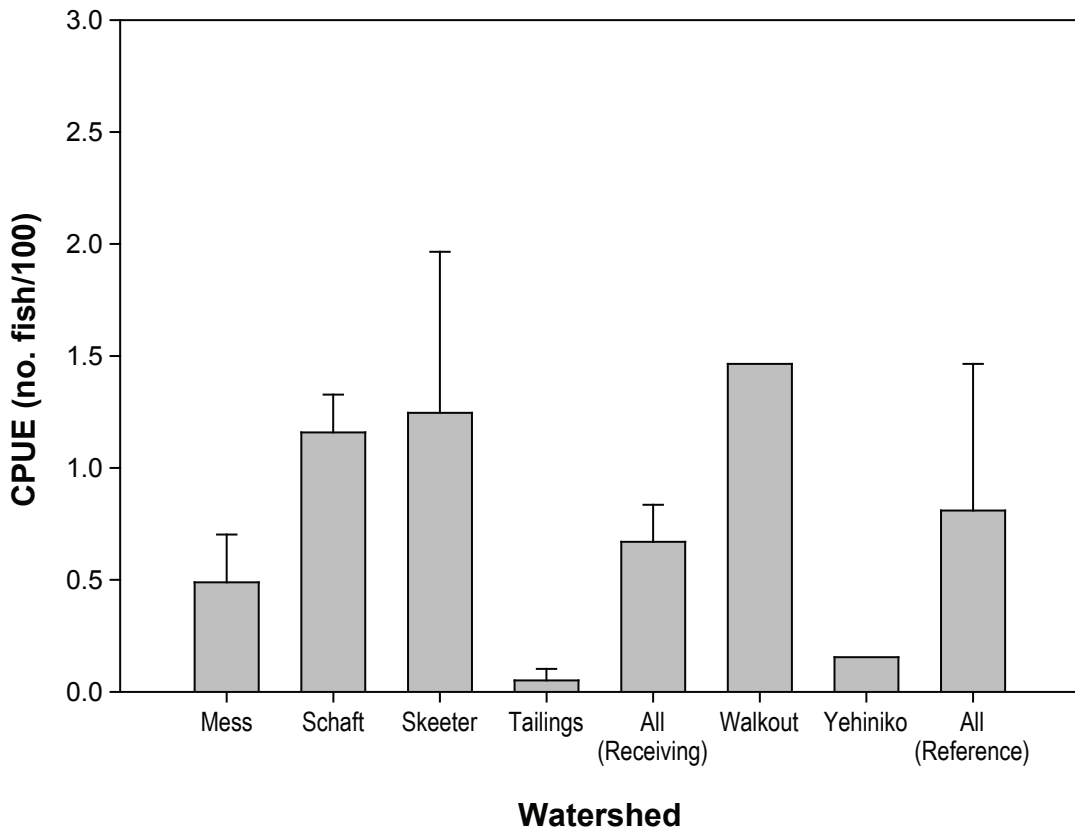
Table 3.2-7
Summary Statistics of Electrofishing Effort, Catch and CPUE
in Receiving and Reference Environment Streams, 2007

Watershed	Number of Sites	Total Effort (s)	Rainbow Trout			Slimy Sculpin			Coho Salmon			Dolly Varden			Mountain Whitefish			All Species		
			No. of Fish	Mean CPUE	SE	No. of Fish	Mean CPUE	SE	No. of Fish	Mean CPUE	SE	No. of Fish	Mean CPUE	SE	No. of Fish	Mean CPUE	SE	No. of Fish	Mean CPUE	SE
Receiving Environment																				
Hickman Creek	6	3686	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Mess Creek	6	4312	23	0.49	0.21	0	-	-	0	-	-	0	-	-	0	-	-	0	0.49	0.21
Schaft Creek	5	3326	45	1.16	0.17	0	-	-	0	-	-	0	-	-	0	-	-	0	1.16	0.17
Skeeter Creek	3	2445	23	1.25	0.72	0	-	-	0	-	-	0	-	-	0	-	-	0	1.25	0.72
Tailings Creek	5	3113	2	0.05	0.05	0	-	-	0	-	-	0	-	-	0	-	-	0	0.05	0.05
All (Receiving)	25	16882	93	0.55	0.14	0	-	-	0	-	-	0	-	-	0	-	-	0	0.55	0.14
Reference Environment																				
Walkout Creek	1	478	7	1.46	-	0	-	-	0	-	-	0	-	-	0	-	-	0	1.46	-
Yehiniko Creek	1	645	1	0.16	-	2	0.31	-	1	0.16	-	2	0.31	-	1	0.16	-	1	1.09	-
All (Reference)	2	1123	8	0.71	0.65	2	0.18	0.16	1	0.09	0.08	2	0.18	0.16	1	0.09	0.08	1	1.25	0.19

Dashes indicate no data available

CPUE = catch-per-unit-effort

SE = standard error



Note: Error bars represent standard error of the mean.

FIGURE 3.2-23



Table 3.2-8

Mean Length, Weight, and Condition of Fish Captured in Receiving and Reference Environment Streams, 2007

Watershed	Species	Length (mm)					Weight (g)					Condition (g/mm ³)				
		N	Mean	SE	Min	Max	N	Mean	SE	Min	Max	N	Mean	SE	Min	Max
Receiving Environment																
Mess Creek	Rainbow Trout	22	144	14	35	280	22	60.8	15.2	0.4	200	22	1.24	0.10	0.91	3.06
Schaft Creek	Rainbow Trout	45	139	5	71	220	45	34.4	3.8	4.7	119.1	45	1.09	0.02	0.64	1.31
Skeeter Creek	Rainbow Trout	23	99	7	51	175	23	15.4	3.3	2.1	59.6	23	1.18	0.03	1.00	1.58
Tailings Creek	Rainbow Trout	2	202	31	171	233	2	111.6	46.9	64.7	158.5	2	1.27	0.02	1.25	1.29
Reference Environment																
Walkout Creek	Rainbow Trout	7	164	18	123	243	7	65.4	22.3	22.2	173.9	7	1.21	0.03	1.11	1.35
Yehiniko Creek	Slimy Sculpin	2	86	28	58	114	2	7.9	6.0	1.9	13.8	2	0.95	0.02	0.93	0.97
Yehiniko Creek	Coho Salmon	1	37	-	37	37	1	0.5	-	0.5	0.5	1	0.99	-	0.99	0.99
Yehiniko Creek	Dolly Varden	2	104	19	85	123	2	12.0	5.2	6.8	17.1	2	1.01	0.09	0.92	1.11
Yehiniko Creek	Mountain Whitefish	1	55	-	55	55	1	1.6	-	1.6	1.6	1	0.96	-	0.96	0.96
Yehiniko Creek	Rainbow Trout	1	92	-	92	92	1	7.9	-	7.9	7.9	1	1.01	-	1.01	1.01

SE = standard error

Dashes indicate no data available

Tailings C Watershed had the greatest average rainbow trout fork length, while Mess Watershed had the second greatest average rainbow trout fork length between all receiving environment watersheds. For reference environment watersheds, average rainbow trout fork length was greater than any of the receiving environment watersheds, except Tailings C Watershed.

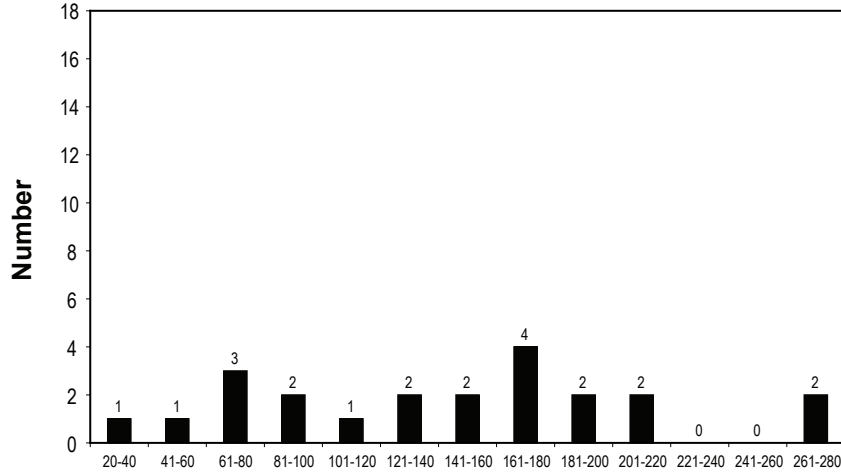
There was only a significant difference of rainbow trout weight between Skeeter Watershed and all other receiving and reference environment watersheds. Rainbow trout from Skeeter Watershed were significantly heavier than rainbow trout from all other receiving and reference environment watersheds (ANOVA; $F_{4,94} = 6.34$, $P < 0.0001$). Tailings C Watershed had the greatest rainbow trout weight, while Mess Watershed had the second greatest rainbow trout weight between all receiving environment watersheds. Rainbow trout from Walkout Watershed (one of the reference sites), were heavier than any of the receiving environment watersheds except Tailings C Watershed.

Length-frequency distributions were plotted for all rainbow trout caught in the receiving and reference environment watersheds (Figures 3.2-24a and 3.2-24b). Mess Creek had a flat distribution with a mode between 161 and 180 mm and possessed the widest size range of 20 to 280 mm among all watersheds. Schaft Watershed had a normal distribution with a mode of 121 to 140 mm and had a relatively limited range of 61 to 220 mm compared to other watersheds. The Skeeter Watershed had a mode of 61 to 80 mm and length was skewed to smaller rainbow trout in Skeeter Creek with a range of 41 to 180 mm. Tailings, Walkout and Yehiniko watershed possessed low sample sizes for biological comparisons between other watersheds.

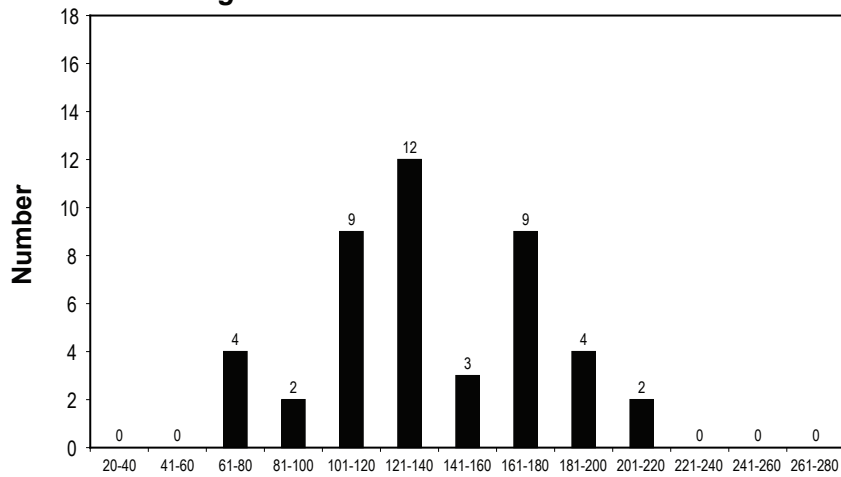
Rainbow trout weight-length regressions (linearized by ln-transformation of both variables) were conducted by watershed (Figures 3.2-25 and 3.2-26). Too few samples were collected from Tailings C Watershed to compare to other watersheds. Regressions of fish weight-length data for Mess, Schaft, Skeeter and reference environment watersheds were all highly significant ($P < 0.001$) and explained between 96 and 99% of the variation in $\ln(\text{weight})$. The slope of regressions for rainbow trout sampled from these sites was close to the expected value of 3.0, typical for the length-weight geometry of fish. The slopes of weight-length regression lines were compared using the general linear model (GLM). The effect of the interaction between length and site on fish weight was significant, indicating that the slopes of the regressions were not equal; thus, length at weight could not be compared (GLM, $F_{4,93} = 1.60$, $P < 0.01$). Mean condition was therefore compared as a surrogate for weight-at-length.

Condition was calculated from length and weight data for all fish captured at receiving and reference environment watersheds (Table 3.2-8; Figure 3.2-27). Mean rainbow trout condition factor within receiving environment watersheds ranged from 1.09 g/mm³ in Schaft Watershed to 1.27 g/mm³ in the Tailings C Watershed. Mean rainbow trout condition factor within reference environment watersheds ranged from 1.01 g/mm³ in Yehiniko Watershed to 1.21 g/mm³ in the Walkout Watershed. A comparison of fish condition between watersheds indicated that rainbow trout condition was not significantly different (ANOVA, $F_{4,94} = 1.97$, $P = 0.104$). A condition factor of 1.0 is considered normal, and is indicative of a healthy salmonid body shape. Out of 100 fish captured at receiving environment sites, 87% had a condition factor greater than 1.0.

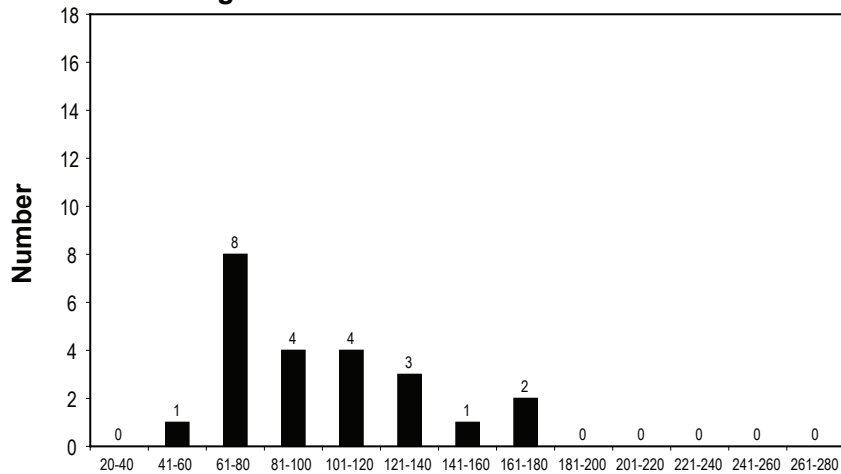
Receiving: Mess



Receiving: Schaft



Receiving: Skeeter

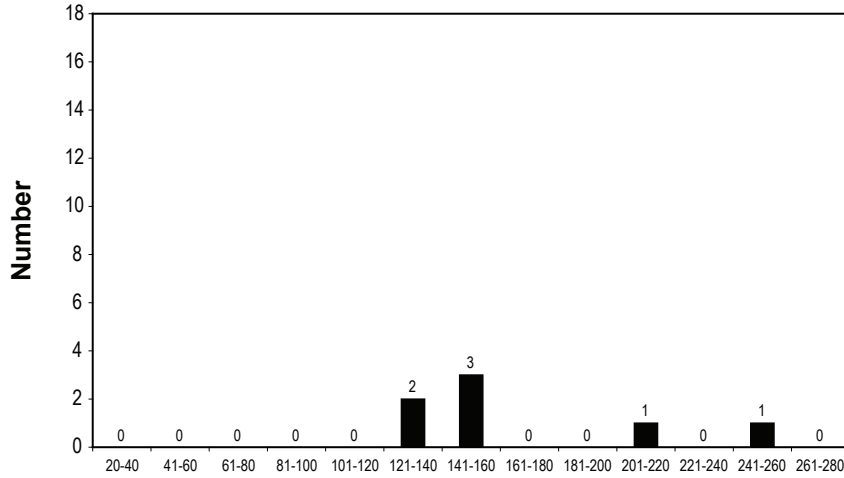


Fork Length Class (mm)

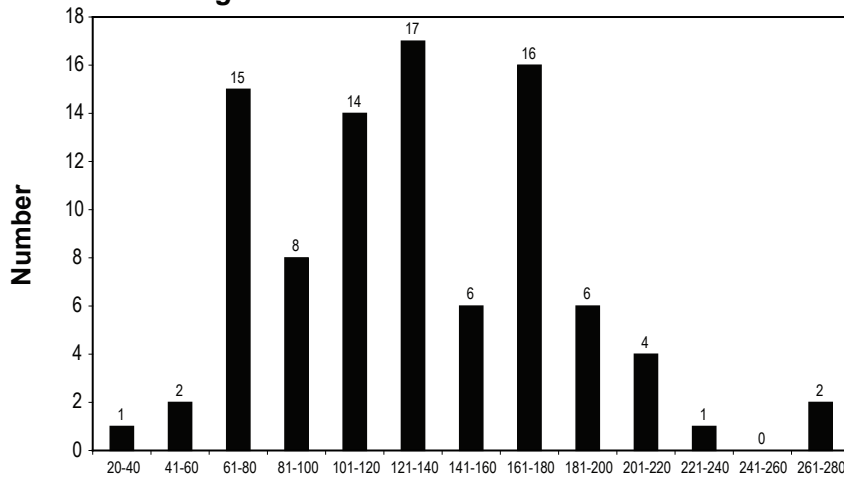
FIGURE 3.2-24a



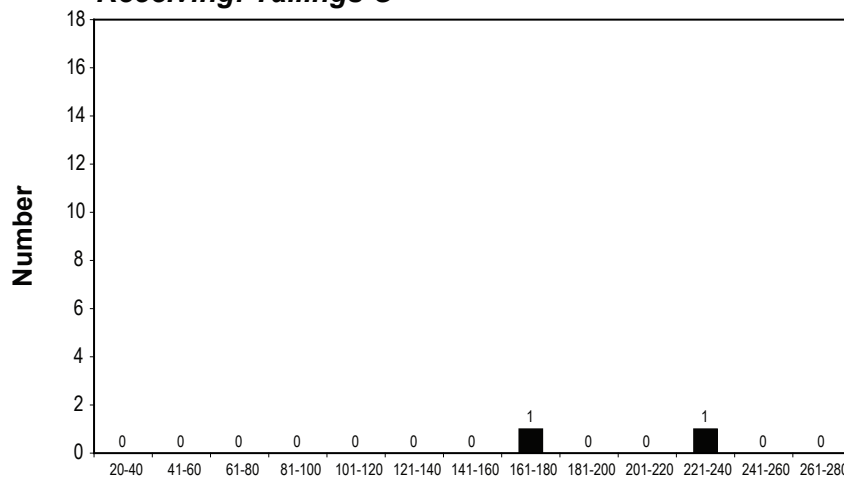
Reference: All



Receiving: All



Receiving: Tailings C



Fork Length Class (mm)

FIGURE 3.2-24b



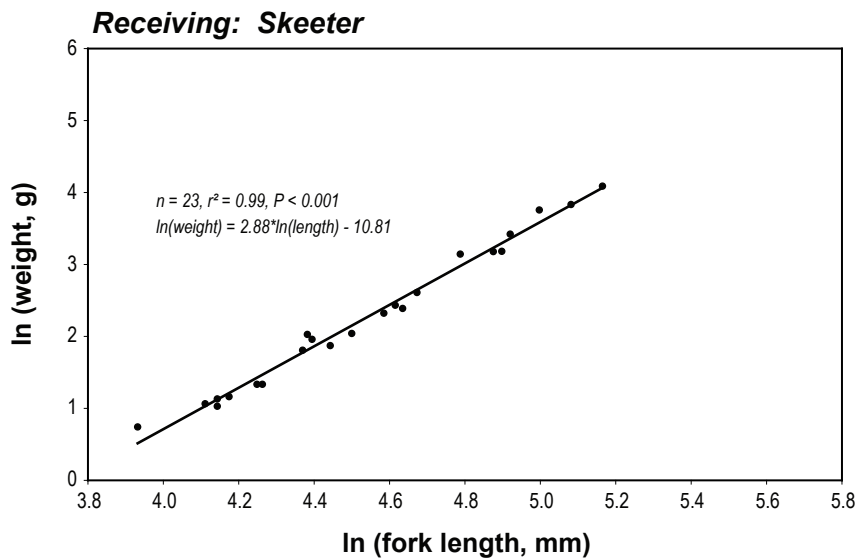
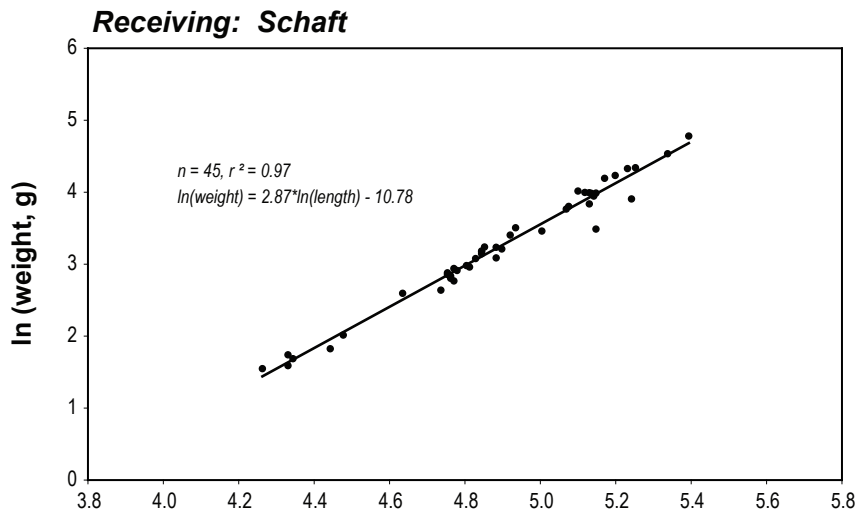
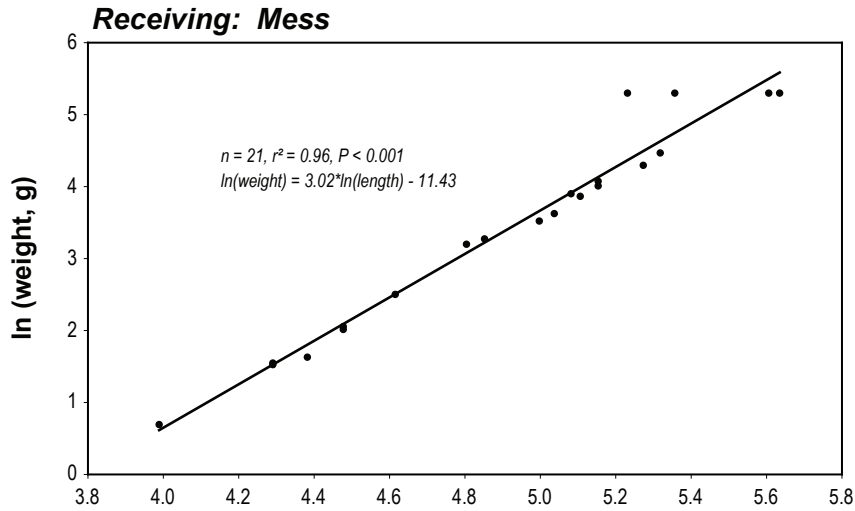


FIGURE 3.2-25



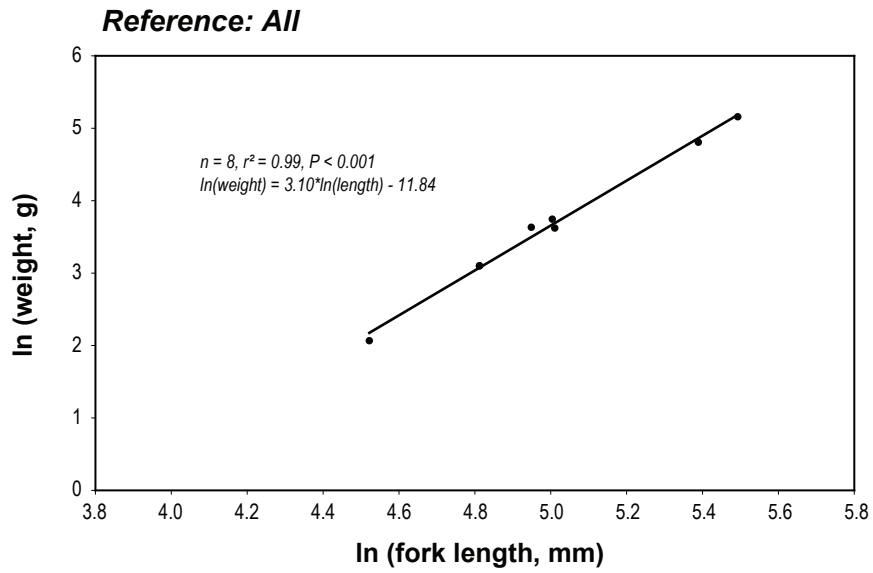
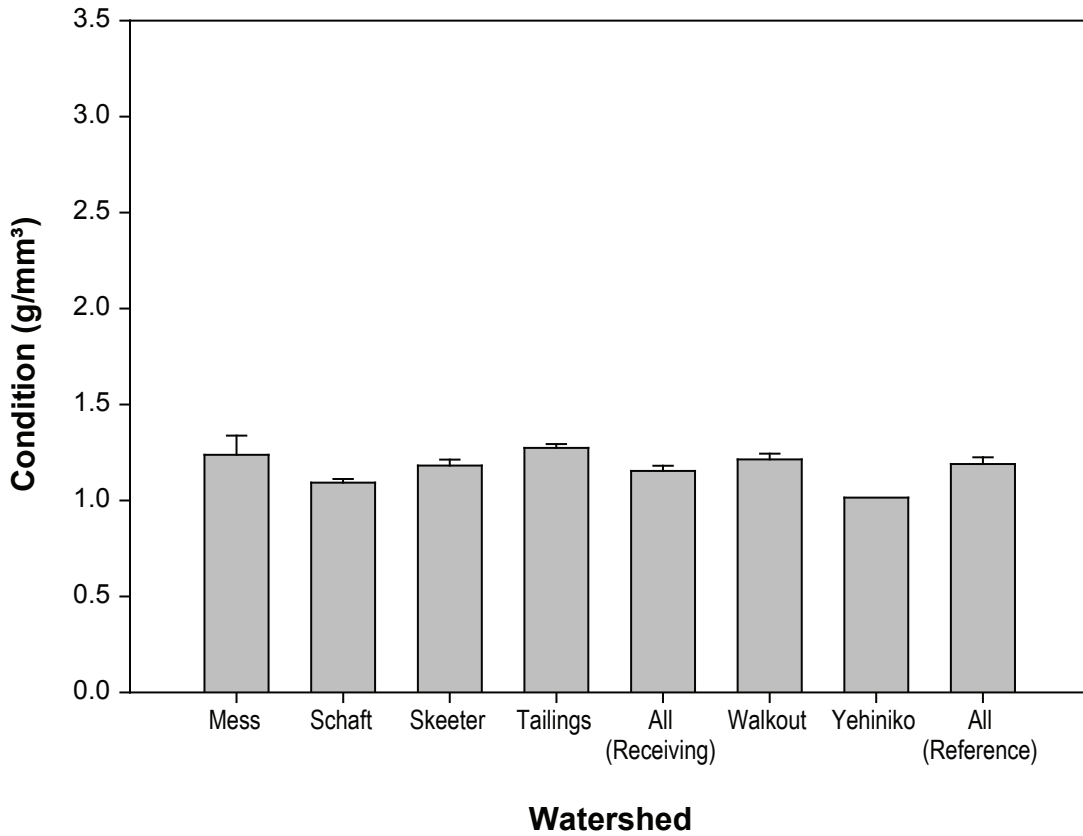


FIGURE 3.2-26





Note: Error bars represent standard error of the mean.

FIGURE 3.2-27



Age and Growth

Age data for fish captured in the receiving and reference environment watersheds are summarized in Table 3.2-9 and Figure 3.2-28. Rainbow trout age data from Walkout and Yehiniko reference environment watersheds were pooled for statistical analysis due to low sample size. Rainbow trout from Skeeter Watershed were significantly younger than rainbow trout from all other receiving environment watersheds (ANOVA; $F_{4,87} = 6.16, P < 0.000$). Tailings C Watersheds had the oldest average age of 3.5 years, followed by Mess Watershed with an average age of 2.8 years.

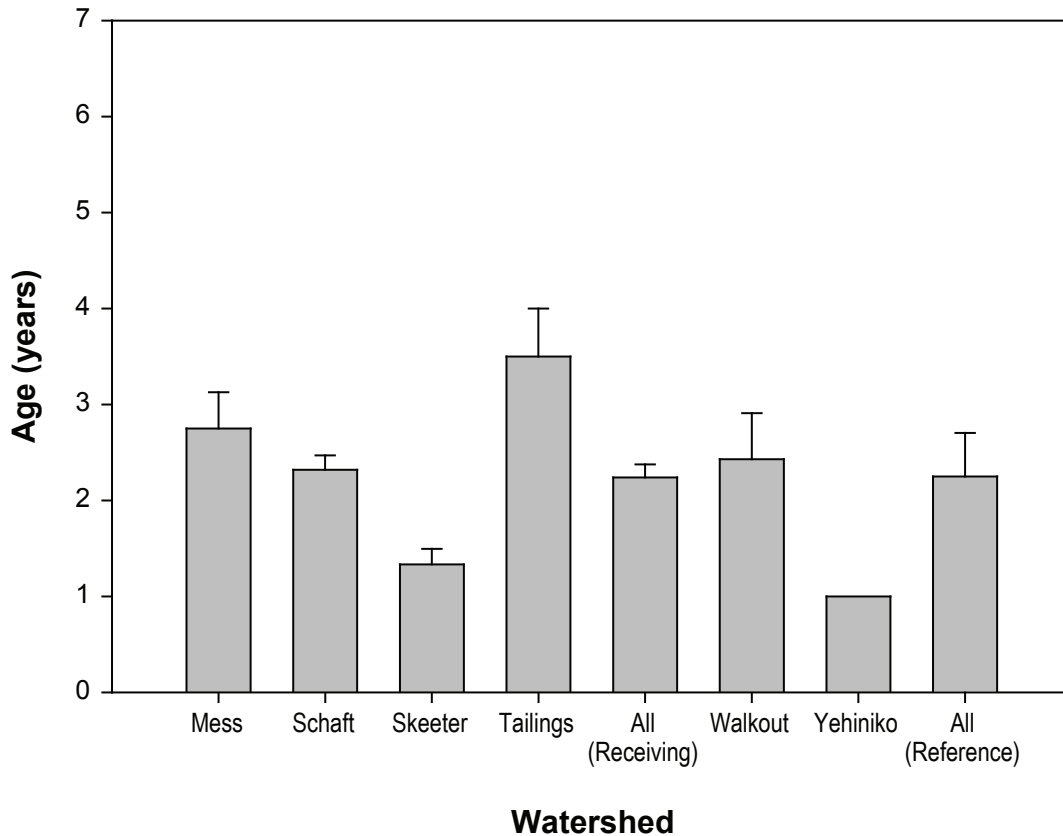
Age-frequency distributions were constructed for all rainbow trout aged from receiving and reference environment watersheds (Figures 3.2-29a and 3.2-29b). Age frequency at Mess Watershed displayed a flat distribution with a mode at age 3, and had the greatest range of 0 to 6 years compared to other watersheds. The age-frequency distribution from Schaft Watershed had a mode of age 2 and had an age range of 0 to 4 years. The Skeeter Watershed age-frequency distribution was skewed toward younger fish. Skeeter Creek had one mode at age-1, and ages ranged from 0 to 3 years. The Tailings C Watershed had a narrow age range of 3 to 4 years. The reference watersheds, Walkout and Yehiniko, had a mode age 1 and a range of 1 to 4 years. All 3 receiving watersheds, except Tailings C, had a similar range of age classes, indicating that the habitat is suitable for, but not necessarily preferred by all age-classes. Most of the fish from Mess and Schaft watersheds (75% and 84%, respectively) were above the age of 2, while only 33% of fish from Skeeter Creek were above the age of 2. These results indicate that juvenile rainbow trout may frequent the low velocity habitat and smaller streams located in the Skeeter Valley, while older fish congregate in the faster habitat of the mainstem rivers.

**Table 3.2-9
Mean Age of Fish Captured in Receiving and Reference Environment Watersheds, 2007**

Watershed	Species	Age (years)				
		n	Mean	SE	Min	Max
Receiving Environment						
Mess Creek	Rainbow Trout	20	2.8	0.4	0	6
Schaft Creek	Rainbow Trout	44	2.3	0.2	0	4
Skeeter Creek	Rainbow Trout	18	1.3	0.2	0	3
Tailings C Creek	Rainbow Trout	2	3.5	0.5	3	4
Reference Environment						
Walkout Creek	Rainbow Trout	7	2.4	0.5	1	4
Yehiniko Creek	Dolly Varden	2	1.5	0.5	1	2
Yehiniko Creek	Rainbow Trout	1	1.0	-	1	1

SE = standard error
Dashes indicate no data available

Von Bertalanffy growth models were fit to the age and length data of fish from the three receiving environment watersheds and pooled reference environment watersheds (Figure 3.2-30). Rainbow trout age data from Walkout and Yehiniko reference environment watersheds were pooled for growth modeling due to low sample size. Age explained between 56 and 74% of the variation in fish length. The maximum attainable length was estimated at 576 mm for fish from Mess Watershed. The maximum attainable length was estimated at 510 mm for fish from Schaft Watershed.

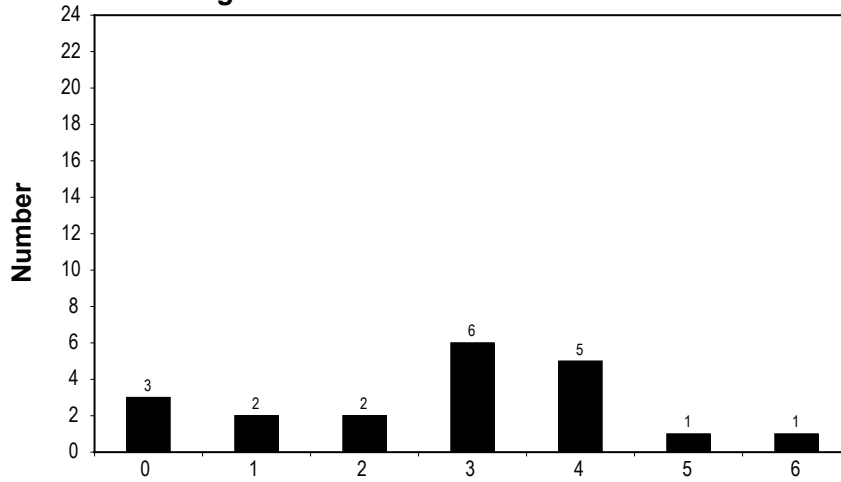


Note: Error bars represent standard error of the mean.

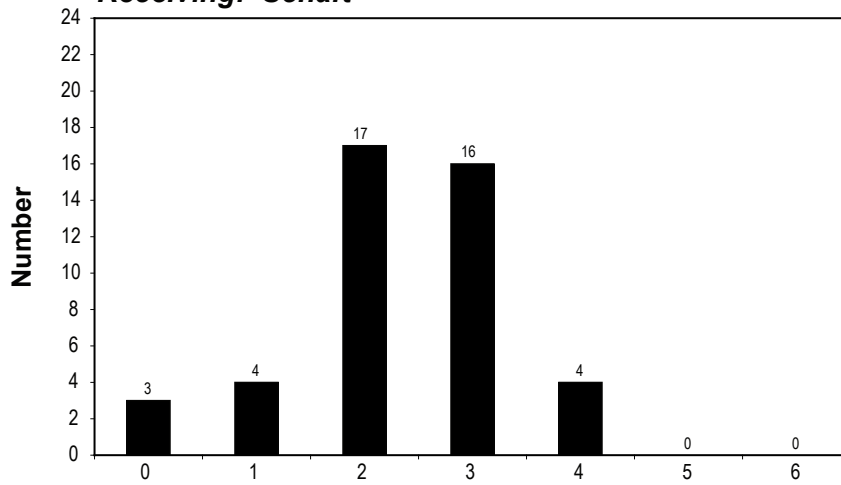
FIGURE 3.2-28



Receiving: Mess



Receiving: Schaft



Receiving: Skeeter

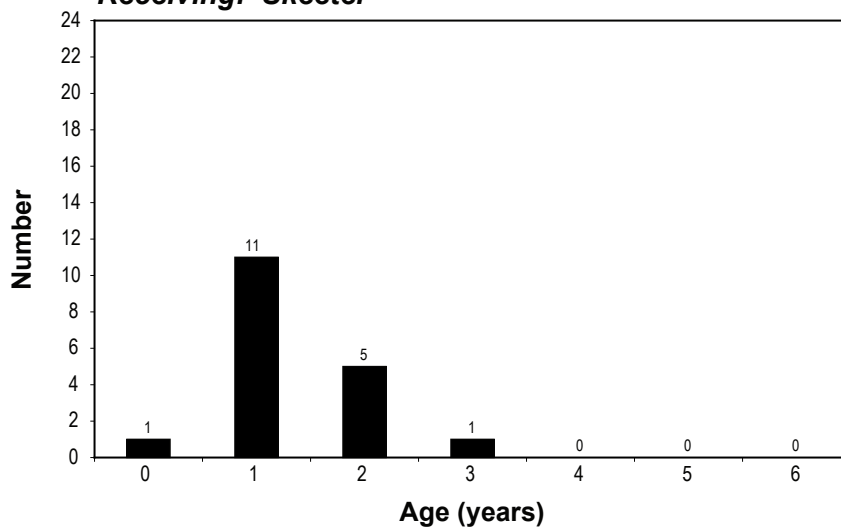


FIGURE 3.2-29a



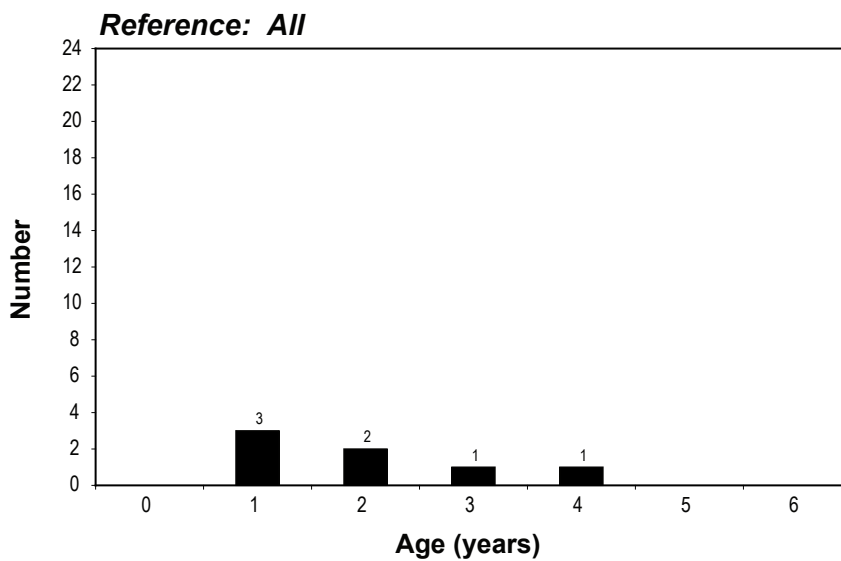
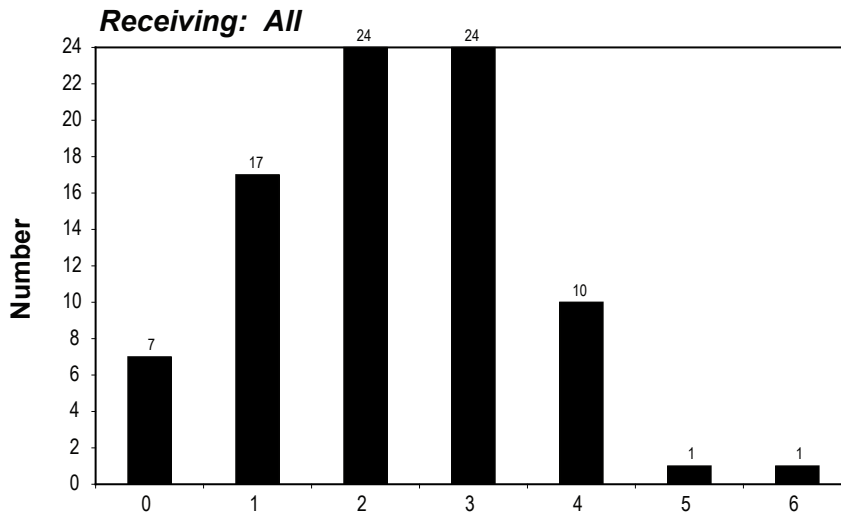
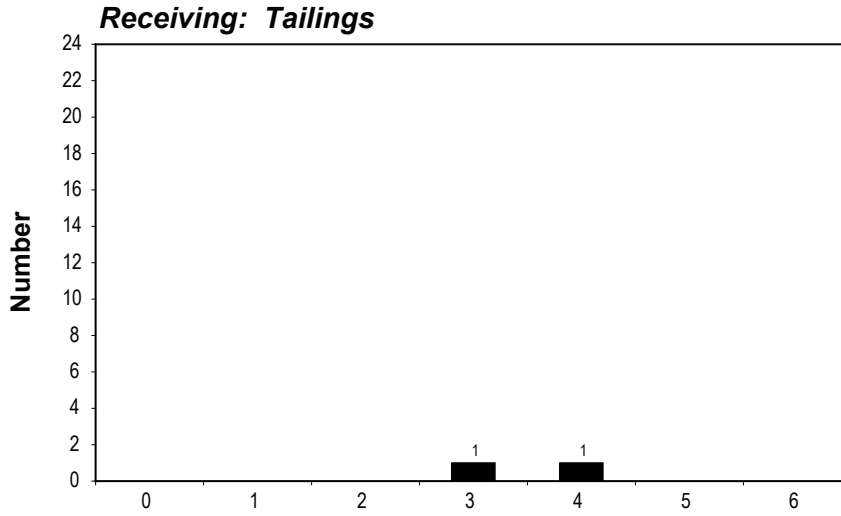


FIGURE 3.2-29b



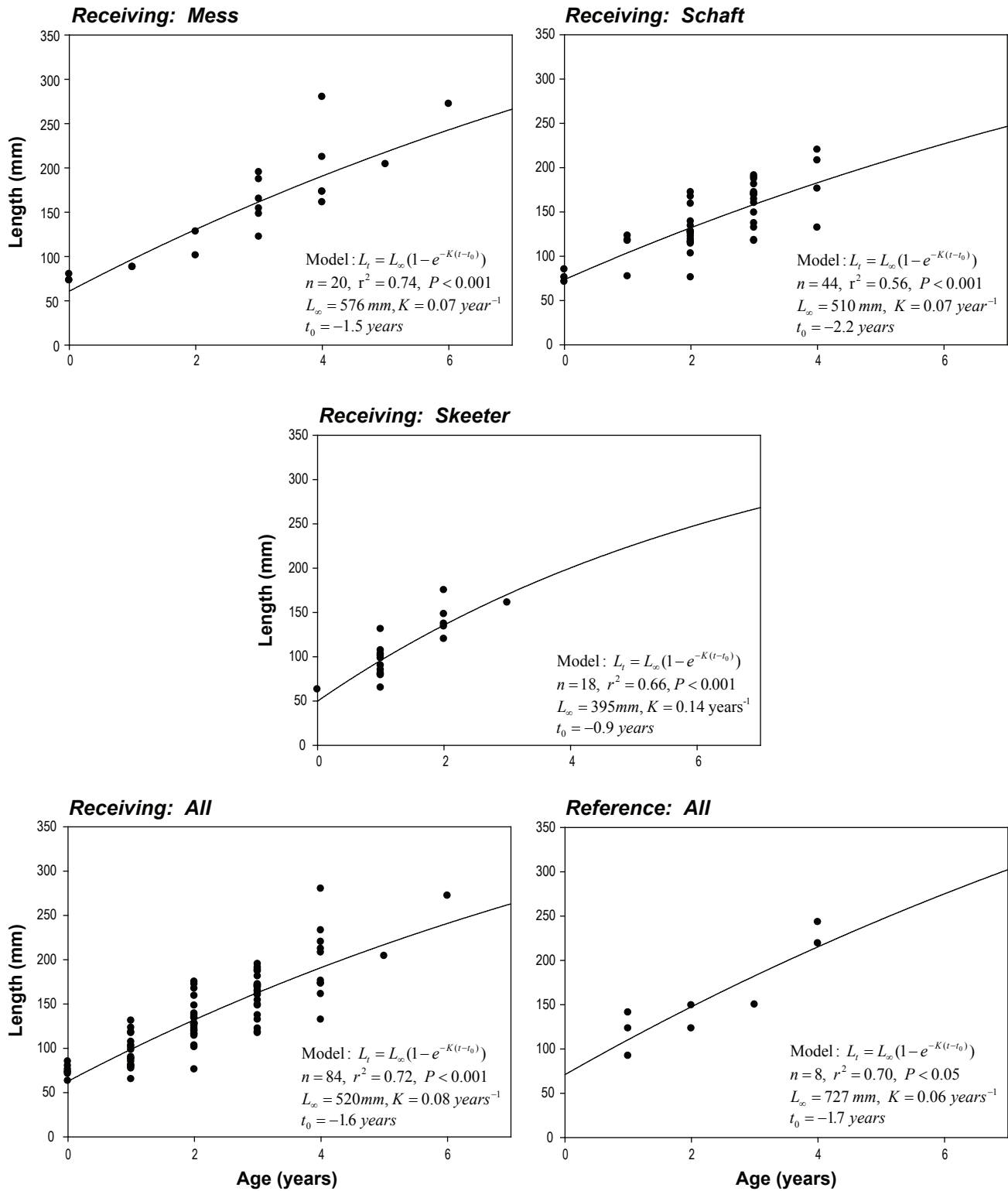


FIGURE 3.2-30



The model predicted a maximum length of 395 mm for fish from Skeeter Watershed. The model predicted a maximum length of 727 mm for fish from reference environment watersheds.

Diet

Mean rainbow trout stomach fullness ranged from 20% in Schaft Creek to 76% in Tailings C Creek, while mean percent digestion ranged from 68% in Walkout Creek to 95% in Yehiniko Creek (Table 3.2-10). Percent digestion is often influenced by the timing of sampling, since trout feeding often peaks at dawn and dusk. Fullness may be related to digestion, as well as food abundance. The low percent fullness of rainbow trout stomachs in Schaft Creek may be due to food scarcity or feeding inefficiency in the highly turbid water. The actual weight of stomach contents is related to the size of fish captured, the amount of food eaten and the percent digested.

Rainbow trout diet composition was analyzed by number and by weight for fish from five receiving environment streams. Diet varied widely among streams; however, numerically dominant prey items included adult Diptera (true flies), larval Chironomidae (midges) and Hymenoptera (wasps) (Figure 3.2-31). Diet composition of fish from Skeeter Creek was highly variable, but the most common prey items were chironomid larvae, adult Diptera, larval Plecoptera (stoneflies), Hemiptera (water striders), larval mayflies and larval Diptera. The large proportion of aquatic larvae indicates that fish feed primarily from the water column, selecting a few individuals from the surface.

Some fish were also sampled from Schaft Creek just downstream of the Skeeter Creek outlet. These fish ate mostly water striders and adult Diptera, indicating that they relied heavily on surface drift as a food source. This could be due to the high turbidity in Schaft Creek, which may prevent fish from seeing prey items in the water column.

In Walkout Creek, fish diet was dominated numerically by adult Diptera, followed by Hemiptera, larval stoneflies, larval Trichoptera (caddisflies) and wasps. Fish diet in this stream varied widely and included high numbers of both aquatic and terrestrial organisms. Walkout Creek, like Skeeter Creek, is clear and fish may have more opportunity to feed on prey items drifting in the water column than fish in turbid streams.

Fish in Tailings C Creek fed almost exclusively on chironomid larvae. While Tailings C Creek is moderately turbid, it is also very cold and invertebrate diversity may be lower in this creek than in other streams in the Project area.

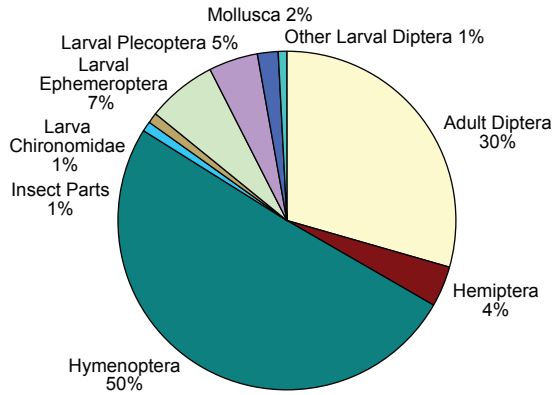
Finally, the diet of fish from Yehiniko Creek was dominated by larval Diptera and Hymenoptera. Smaller numbers of larval mayflies, larval chironomids and larval Lepidoptera (caterpillars) were also eaten. Yehiniko Creek has low turbidity, and fish likely rely more heavily on prey items in the water column for food than fish in turbid rivers.

By weight, rainbow trout diet was also highly variable among streams; however, dominant prey groups included larval mayflies, larval Diptera, Hemiptera and larval chironomids (Figure 3.2-32). Unidentifiable insect parts and insect larvae also made up a large proportion of diet weight in fish from Yehiniko Creek and Walkout Creek.

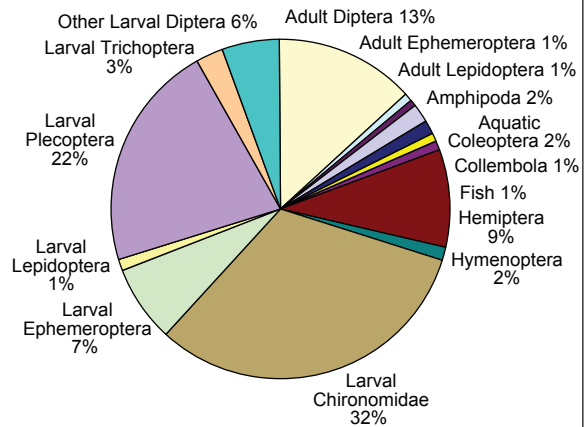
Table 3.2-10**Fullness, Digestion and Stomach Content Weight of Rainbow Trout from Receiving Environment Streams, 2007**

	Walkout Creek (N=15)				Schaft Creek (N=4)				Skeeter Creek (N=9)				Tailings C Creek (N=14)				Yehiniko Creek (N=2)			
	Mean	Min	Max	SE	Mean	Min	Max	SE	Mean	Min	Max	SE	Mean	Min	Max	SE	Mean	Min	Max	SE
Fullness (%)	72	50	90	4	20	0	75	16	43	0	90	12	76	10	100	7	75	75	75	0
Digestion (%)	68	25	90	6	92	75	100	5	75	50	100	8	72	25	95	6	95	95	95	0
Actual Weight (mg)	793	216	1789	130	91	0	354	73	303	0	1740	183	1193	45	2942	249	511	479	543	32

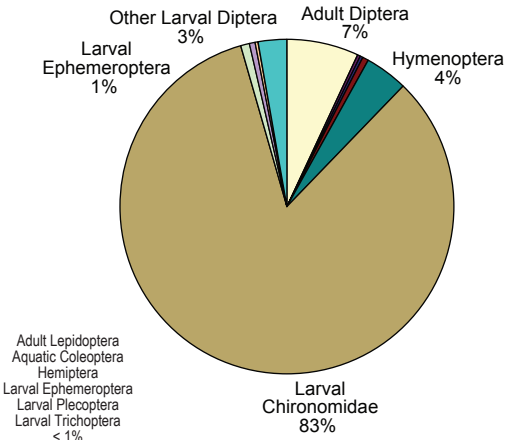
Schaft Creek (SKC-4a)



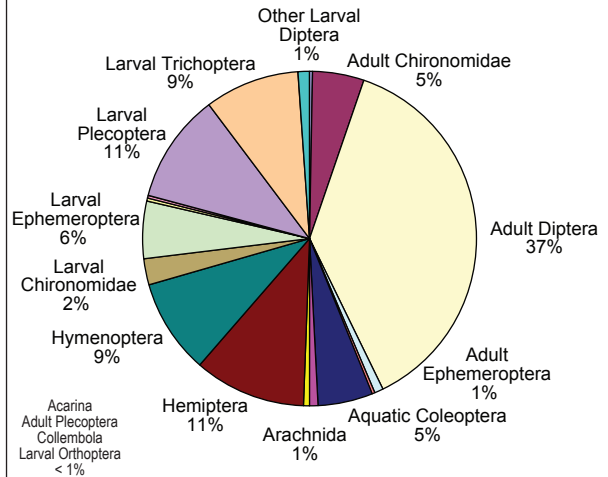
Skeeter Creek (SKC-4)



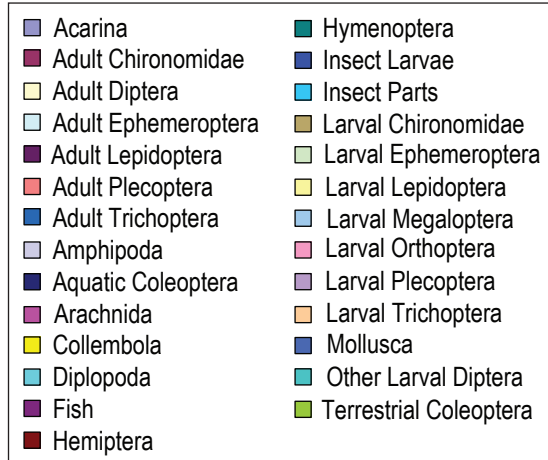
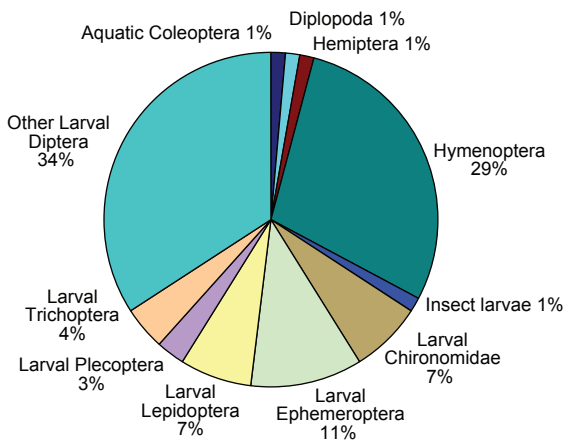
Tailings C Creek (TC-3)



Walkout Creek (WC-1)



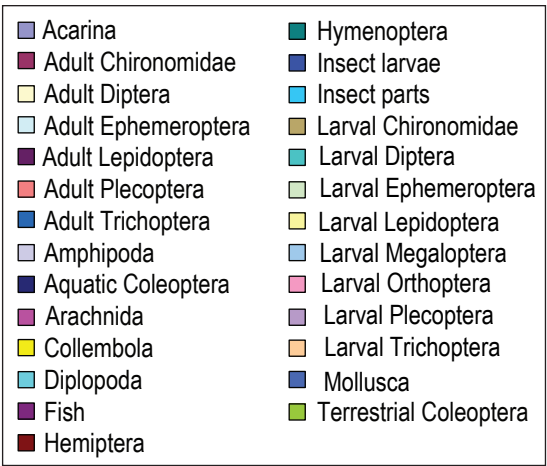
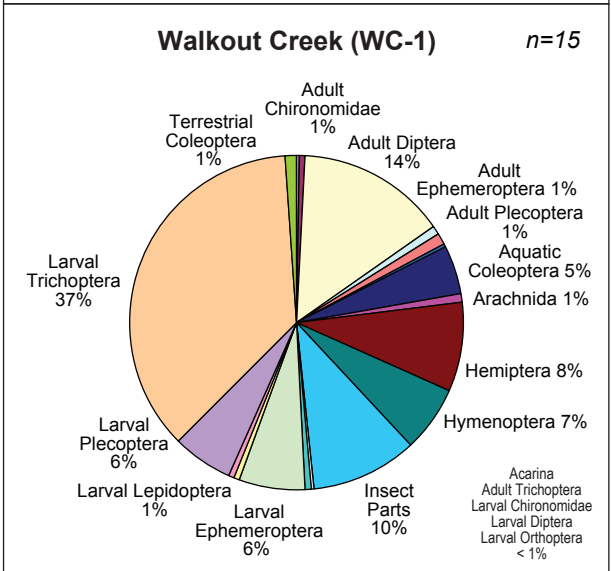
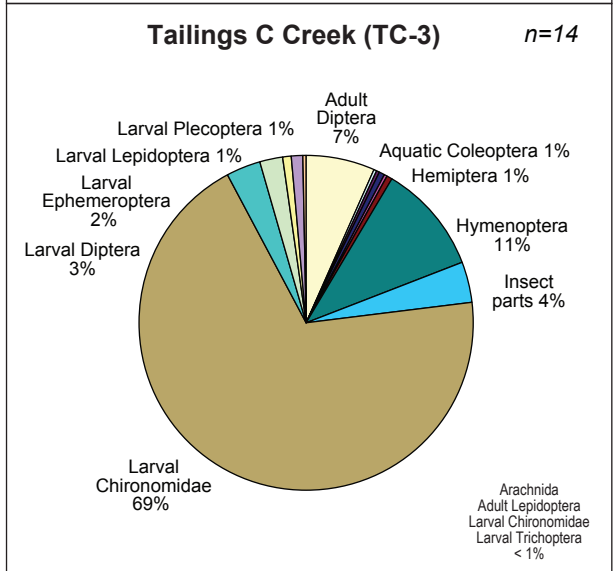
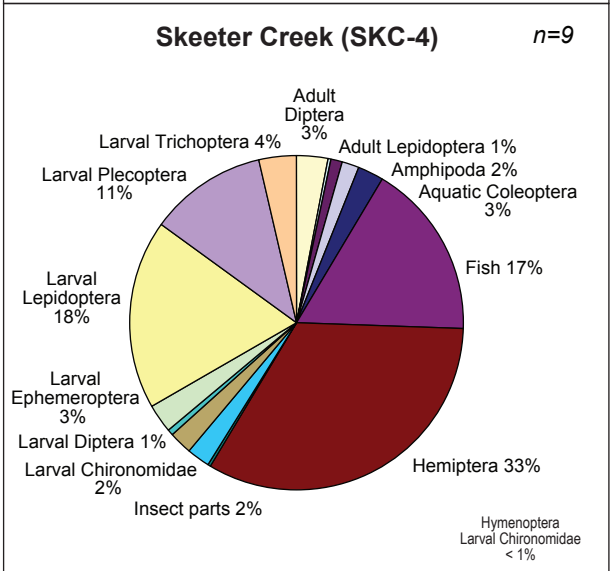
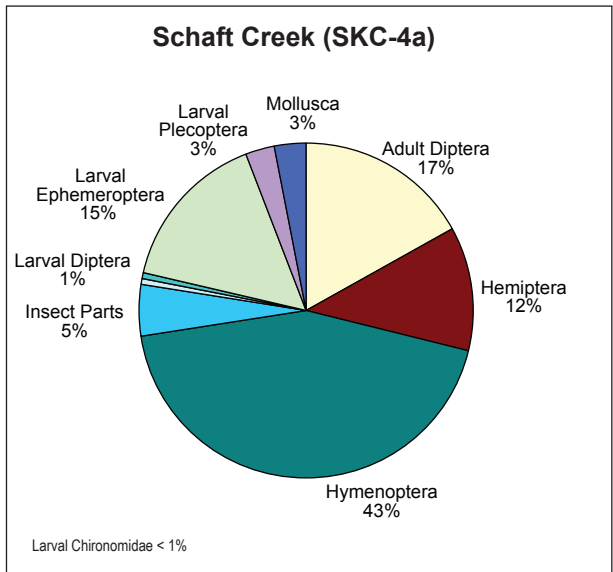
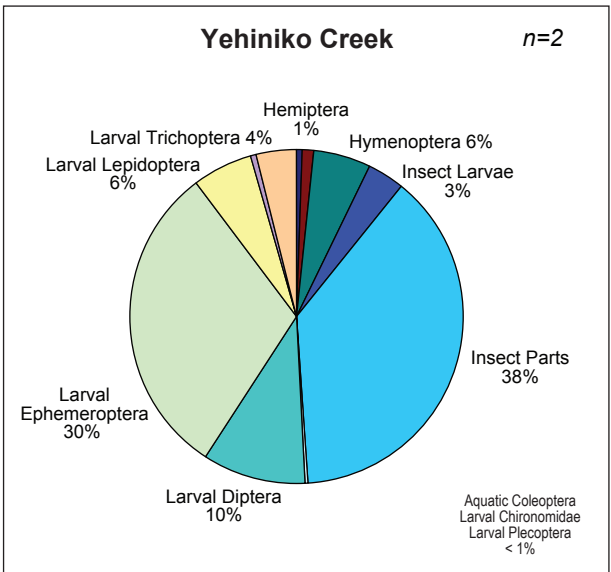
Yehiniko Creek (YC-1)



Percent Diet Composition (by Number) of Rainbow Trout Captured in Schaft Receiving Environment Streams

FIGURE 3.2-31





In Skeeter Creek, the percentage of the diet weight made up by Hemiptera, larval Lepidoptera and fish was much higher than the percentage by number of these organisms, indicating that these organisms were significantly larger than other organisms in the diet. A large proportion of the diet weight was also made up by larval stoneflies.

In Schaft Creek, the largest proportion of the diet weight was made up by wasps, adult Diptera, water striders and larval mayflies. Over half of the diet weight was comprised of terrestrial insects floating on the water surface.

Larval chironomids made up over two thirds of the diet weight of fish from Tailings C Creek. This is similar to the numerical proportion of the diet made up by chironomids, and may indicate that larger prey items are not available for fish in this creek.

Larval Trichoptera (caddisflies) made up the largest proportion of the diet by weight of fish from Walkout Creek. The high ratio of weight to number of items indicates that these organisms are larger than most other prey items and may be preferentially selected by fish. Adult Diptera, Hemiptera and Hymenoptera also made up a large proportion of the diet weight in this stream.

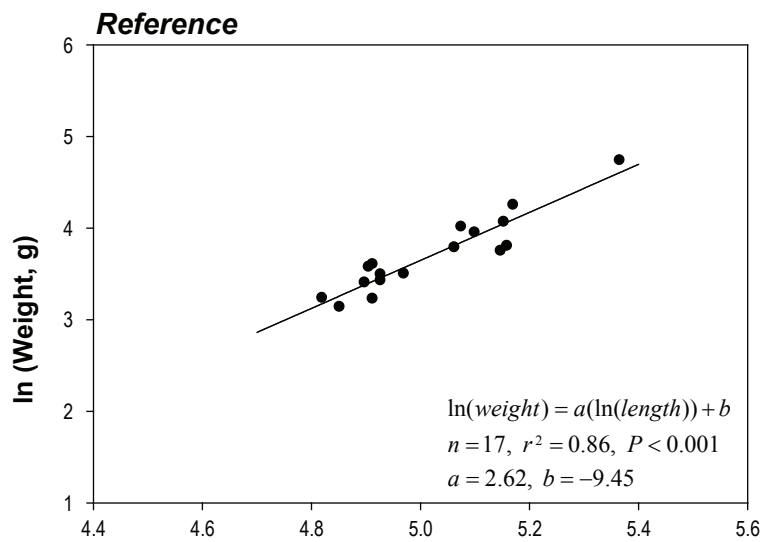
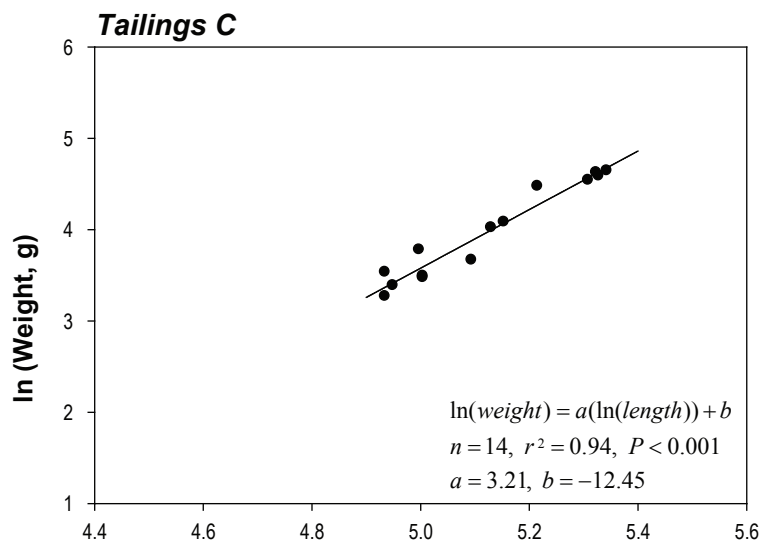
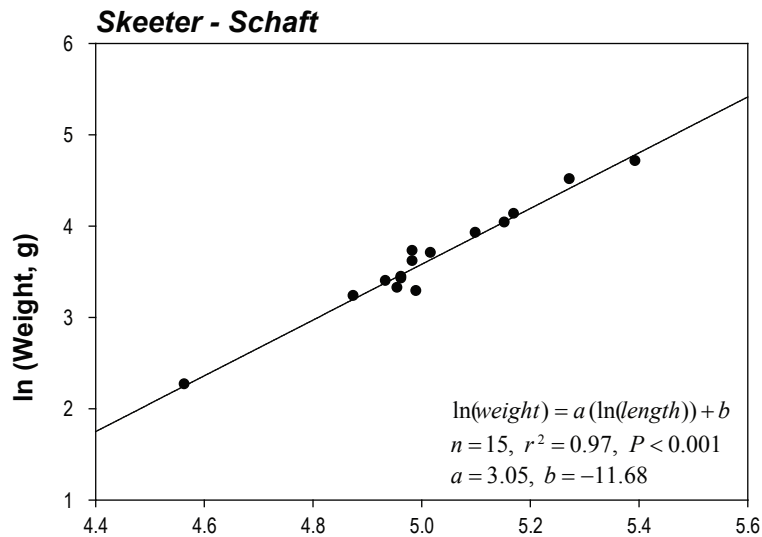
Finally, in Yehiniko Creek, unidentifiable insect parts made up a large part of the diet weight, followed by larval Ephemeroptera and larval Diptera. The large number of partially digested individuals may indicate that fish were not feeding at the time of their capture.

MMER Requirements

Rainbow trout from four receiving environment streams (Skeeter, Walkout, Yehiniko and Tailings C) were sampled in September 2007 for baseline conditions relating to the Metal Mining and Effluent Regulations (MMER). Samples from the two reference streams (Walkout and Yehiniko) were pooled due to the low number of samples from Yehiniko Creek. Also, samples from Skeeter Creek include fish captured in Schaft Creek just downstream of the Skeeter Creek confluence. These fish were included in the study in order to boost sample numbers for this site. Tissue metal concentrations of rainbow trout from these watersheds are presented in the Country Foods Baseline Report (Rescan, 2008).

Energy use by fish can be assessed using growth models (size at age, changes in length-frequency distributions over time) and reproductive investment (gonad weight relative to body length and weight, fecundity, sex steroid levels, young-of-year survival or percent composition of the young-of-the-year). The low numbers of fish captured during this sampling period was not sufficient to produce meaningful growth models for each watershed; however, growth models from other receiving environment sites may be used to represent baseline conditions since they cover a wide portion of the Project area.

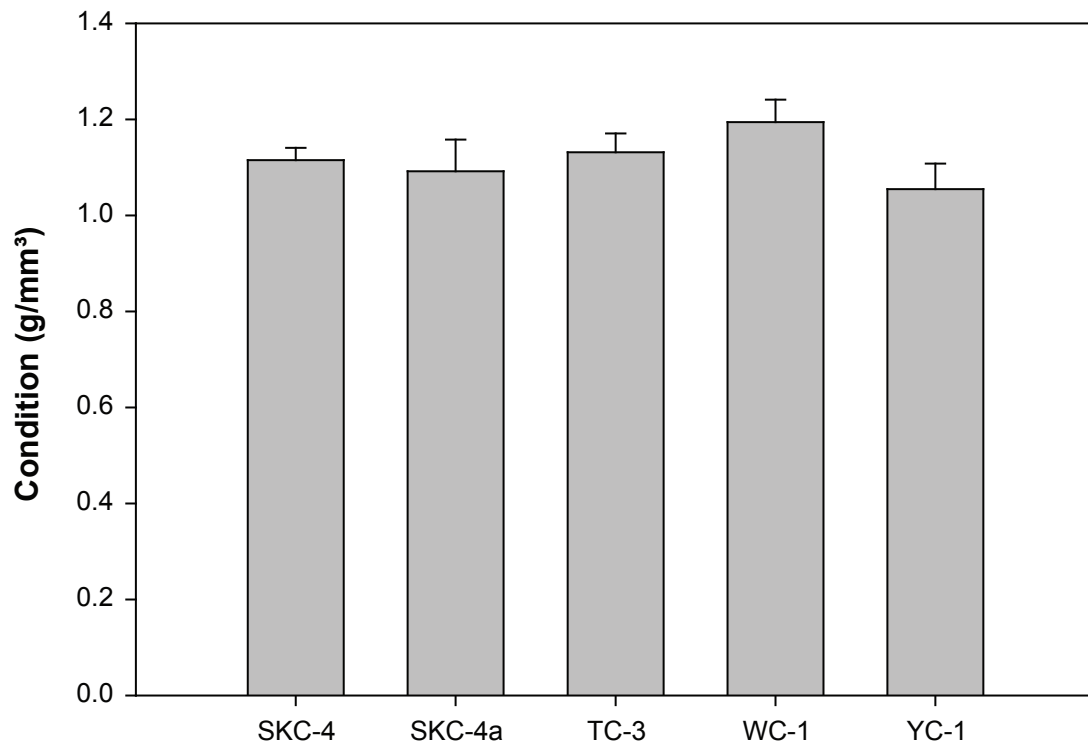
Energy storage was assessed using measures of fish condition. Figure 3.2-33 presents weight-length regressions for rainbow trout captured from the three MMER watersheds. The slopes of the weight-length regressions for fish sampled from the MMER watersheds were not significantly different among sites (GLM, $F_{2,44} = 1.81$, $P = 0.18$), and weight-at-length did not differ significantly (ANCOVA, $F_{2,42} = 0.72$, $P = 0.50$). Similarly, mean rainbow trout condition did not differ significantly among the three groups (ANOVA, $F_{2,43} = 0.75$, $P = 0.48$) (Figure 3.2-34).



In (Fork Length, mm)

FIGURE 3.2-33





Note: Error bars represent standard error of the mean.

FIGURE 3.2-34



Regressions of liver weight on total weight were also used to compare energy storage by fish in the MMER watersheds. The liver weight – total weight regressions were significant for all watersheds ($P < 0.001$), and total weight explained between 80 and 90% of the variation in liver weight (Figure 3.2-35). The slopes of the regressions were not significantly different among watersheds (GLM, $F_{2,42} = 1.38$, $P = 0.26$); thus, the y-intercepts of the regressions could be compared. Liver weight, corrected for total weight, did not differ significantly among MMER watersheds (ANCOVA, $F_{2,40} = 2.53$, $P = 0.09$).

Reproductive investment was compared using regressions of gonad weight on total weight for the three watersheds (Figure 3.2-36). Fecundity (the number of eggs per female) was not compared among watersheds because of the low numbers of mature female fish captured. The gonad weight – total weight regressions were significant for all watersheds ($P < 0.05$), and total weight explained between 26 and 52% of the variation in gonad weight. The low proportion of variation in gonad weight that was explained by total weight is likely a result of some fish being immature at the time of sampling, and indicates that the size at which fish become sexually mature may differ within watersheds. The slopes of the gonad weight – total weight regressions did not differ significantly (GLM, $F_{2,31} = 0.55$, $P = 0.58$). Gonad weight, corrected for total weight, was significantly higher in Skeeter Creek than in Tailings C Creek, but did not differ from the Reference Creeks (ANCOVA, $F_{2,31} = 4.67$, $P < 0.05$).

3.2.2 Wetlands

3.2.2.1 Fish Habitat

Wetlands ranged from bogs laced with small, poorly defined stream channels like wetland 10 (Plate 3.2-6), to large ponds with multiple inlets and outlets like wetland 6 (Plate 3.2-7). Some wetlands included swift, glacial-fed stream channels (wetland 8 and wetland 1) (Plate 3.2-8). The amount of open water habitat surveyed ranged from 55 m² in wetland 10 to 16,900 m² in wetland 6. Most wetlands within the Schaft Creek Project area were large, poorly defined marshes and bogs; therefore, the area surveyed is not representative of the size of the wetlands or the amount of wetland habitat available to fish. Rather, it is meant to be a representative sample of open-water habitat in the area that can be used to estimate the relative abundance of good quality fish habitat in wetlands.

Habitat for salmonid rearing, overwintering, spawning and migration was rated as poor to good for each transect completed in a wetland. Good quality rearing habitat is that which has abundant cover, depth and flow to provide shelter from predators and to prevent stagnant conditions from forming (Plate 3.2-9). Overwintering requirements for most fish include deep water that will not freeze to the bottom, and abundant cover that will protect fish from predators (Plate 3.2-10). Spawning habitat for salmonids is usually scarce in wetlands as they require good flow and gravel substrates (Plate 3.2-11). Exceptions occur at wetland outlets or where streams flow through wetlands from other sources. Finally, migration habitat is classified as good if depth and flow are sufficient to pass fish, and if there are no barriers to migration such as seepages, jams or falls.

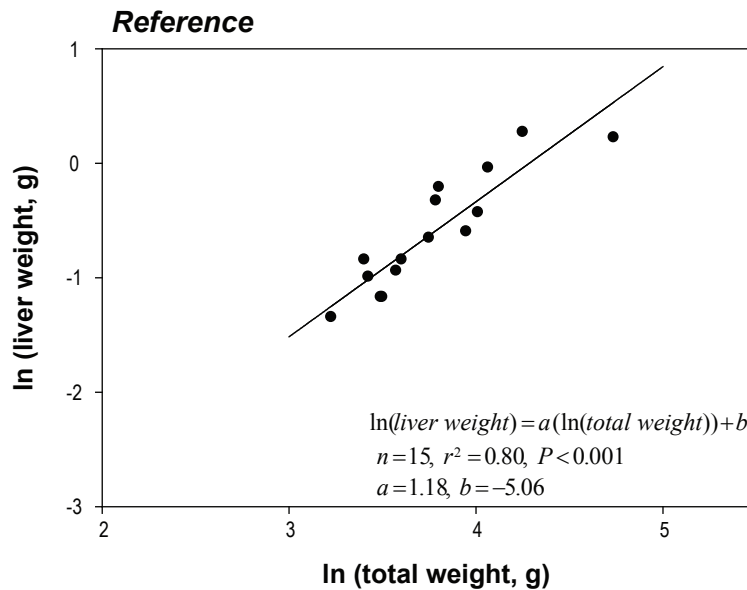
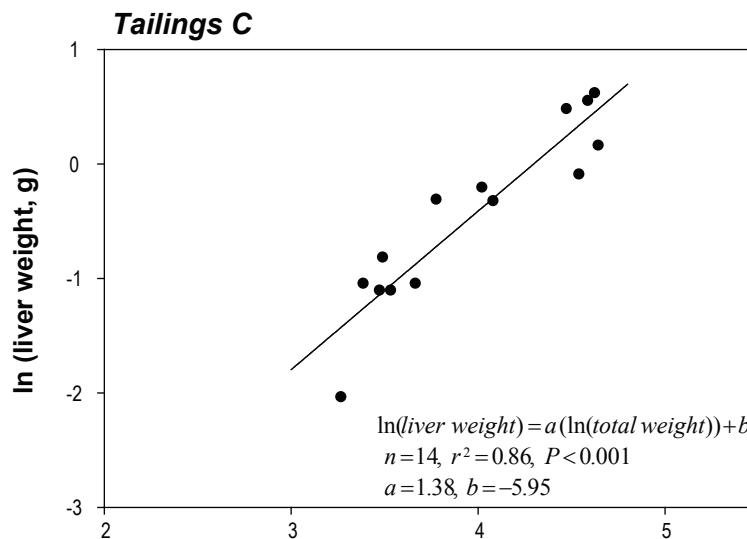
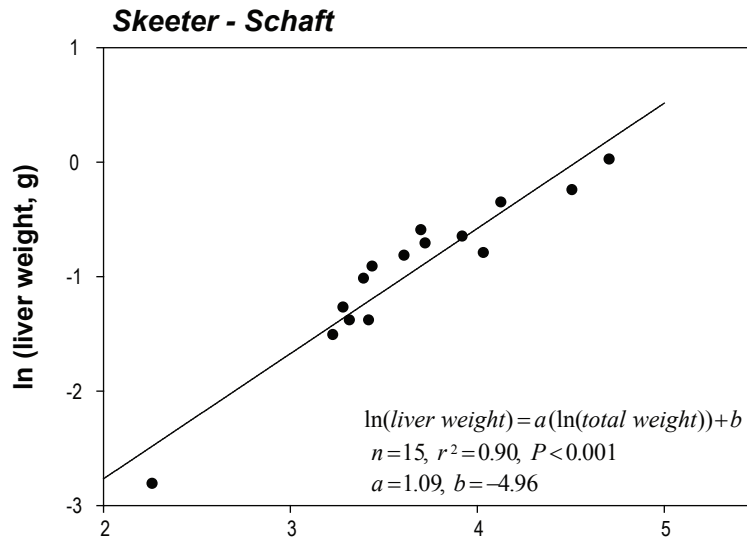


FIGURE 3.2-35



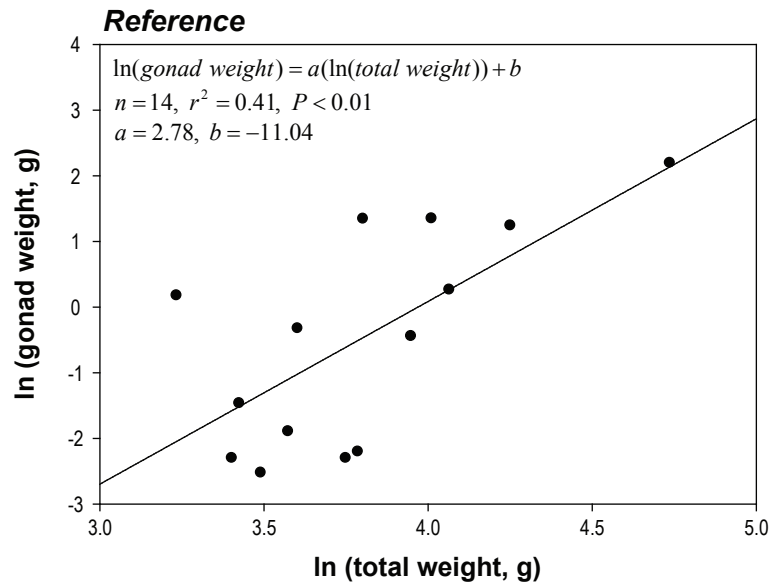
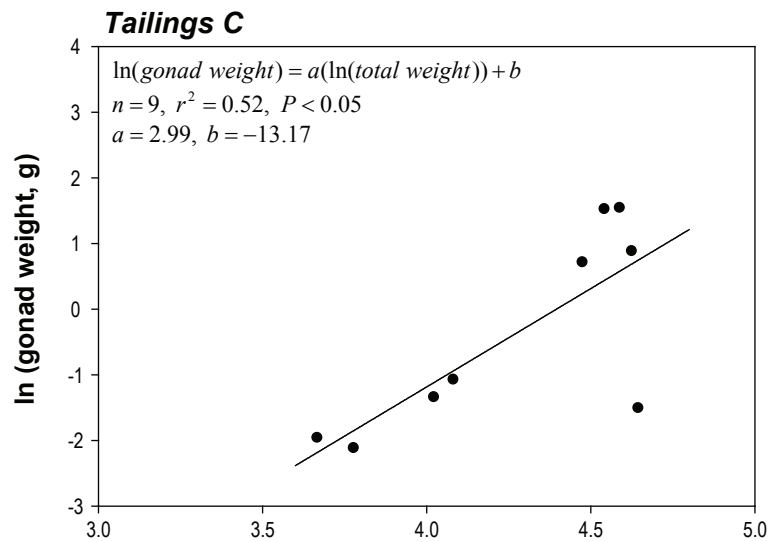
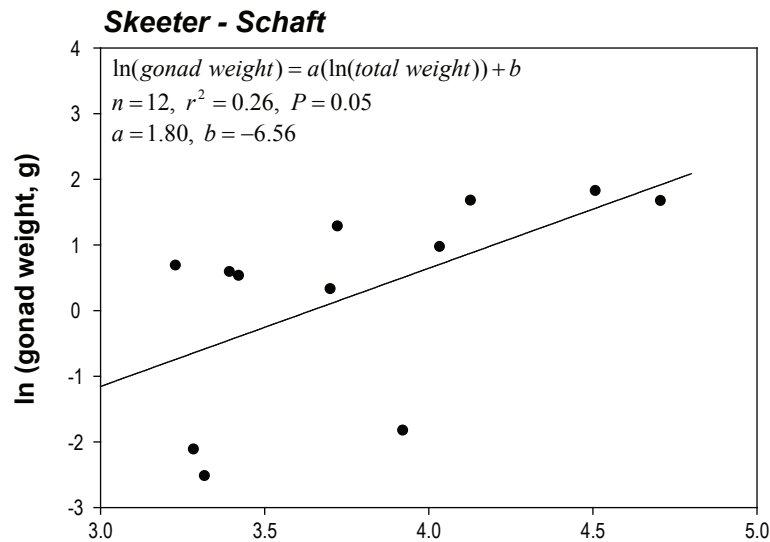


FIGURE 3.2-36





Plate 3.2-6. Electrofishing one of the poorly defined stream channels in wetland 10.



Plate 3.2-7. Aerial view of a flooded wetland 6 (foreground) and Mess Creek.



Plate 3.2-8. Stream channel running through wetland 8.



Plate 3.2-9. Example of good rearing habitat (abundant cover, good flow and depth) at wetland 9.



Plate 3.2-10. Deep overwintering habitat at wetland 2.



Plate 3.2-11. Excellent spawning habitat at the outlet of wetland 9.

Good quality rearing and overwintering habitat was abundant in wetlands 2, 9 and 11, while wetlands 3, 4 and 6 had mostly fair quality rearing habitat (Figure 3.2-37). Wetland 6 also had a significant amount of poor quality overwintering habitat. Poor quality rearing and overwintering habitat was present in wetlands 1, 5, 7, 8 and 10. Spawning habitat was mostly poor in all wetlands. Small amounts of fair to good spawning habitat were observed in wetlands 1, 4 and 9, mostly in streams that coursed through the wetlands from other areas. Habitat for migration was fair to good in many wetlands in the Schaft Creek Project area. Exceptions occurred in wetlands 5, 6, 7, 9 and 10, where open water habitat was either stagnant, shallow or choked with vegetation.

The dominant and subdominant substrate type in most wetlands was fine sediment, which is expected due to the low gradients and slow flow generally found in most wetlands (Figure 3.2-38). A small amount of gravel occasionally dominated wetland transects, usually in small riffle zone of streams running through wetlands. Gravel occurred as a subdominant substrate type in three wetlands. Only wetland 1 had cobble as a subdominant substrate. This was located in stream channels running through the wetland.

The dominant cover type for each transect was assessed, and the total area influenced by the dominant cover type was added up for each wetland in the study area (Figure 3.2-39). Wetlands where dominant cover was not reported for 100% of the study area had significant areas where no cover was present. Instream vegetation was the dominant cover type reported for wetlands 3, 5 and 6, and was also dominant in parts of wetlands 7, 8 and 9. Deep pools dominated wetlands 1, 2 and 11, and parts of wetlands 4 and 9. Overhanging vegetation was also reported as the dominant cover type in wetland 10, and in portions of wetlands 8 and 9. Small woody debris cover was dominant in parts of wetland 4, 7 and 9. Large woody debris was the least common dominant cover type, occurring only in portions of wetland 4.

3.2.2.2 Fish Community

Rainbow trout were the only species captured in receiving environment wetlands in 2007. Trout were captured in six wetlands out of eleven: WL1, 2, 4, 6, 9 and 11. Wetlands 2, 6 and 9 are located adjacent to Mess Creek. Wetland 1 is located in lower Schaft Creek. Wetland 4 is located in the Skeeter Valley adjacent to Start Lake. Wetland 11 is located adjacent to Nagha Creek, which flows into Mess Creek just north of Mess Lake.

Fish were captured by electrofishing and minnow trapping. Electrofishing effort ranged from 113 electrofishing seconds in wetland 10 to 698 electrofishing seconds in wetland 3 (Figure 3.2-40). Electrofishing was not conducted in wetland 6 due to the absence of suitable habitat. Fish were only captured by electrofishing in wetlands 1, 9 and 11. Among wetlands where fish were captured, CPUE ranged from 0.23 fish/100 s in wetland 1 to 2.78 fish/100 s in wetland 9.

Minnow trap effort ranged from 1,457 trap hours in wetland 3 to 4,477 trap hours in wetland 5 (Figure 3.2-40). Minnow trapping was not conducted in wetlands 7, 8 or 10 due to the absence of suitable habitat for trapping. Fish were captured in minnow traps in wetlands 2, 4, 6, 9 and 11. Among wetlands where fish were captured, CPUE ranged from 0.02 fish/trap day in wetland 6 to 0.25 fish/trap day in wetland 9.

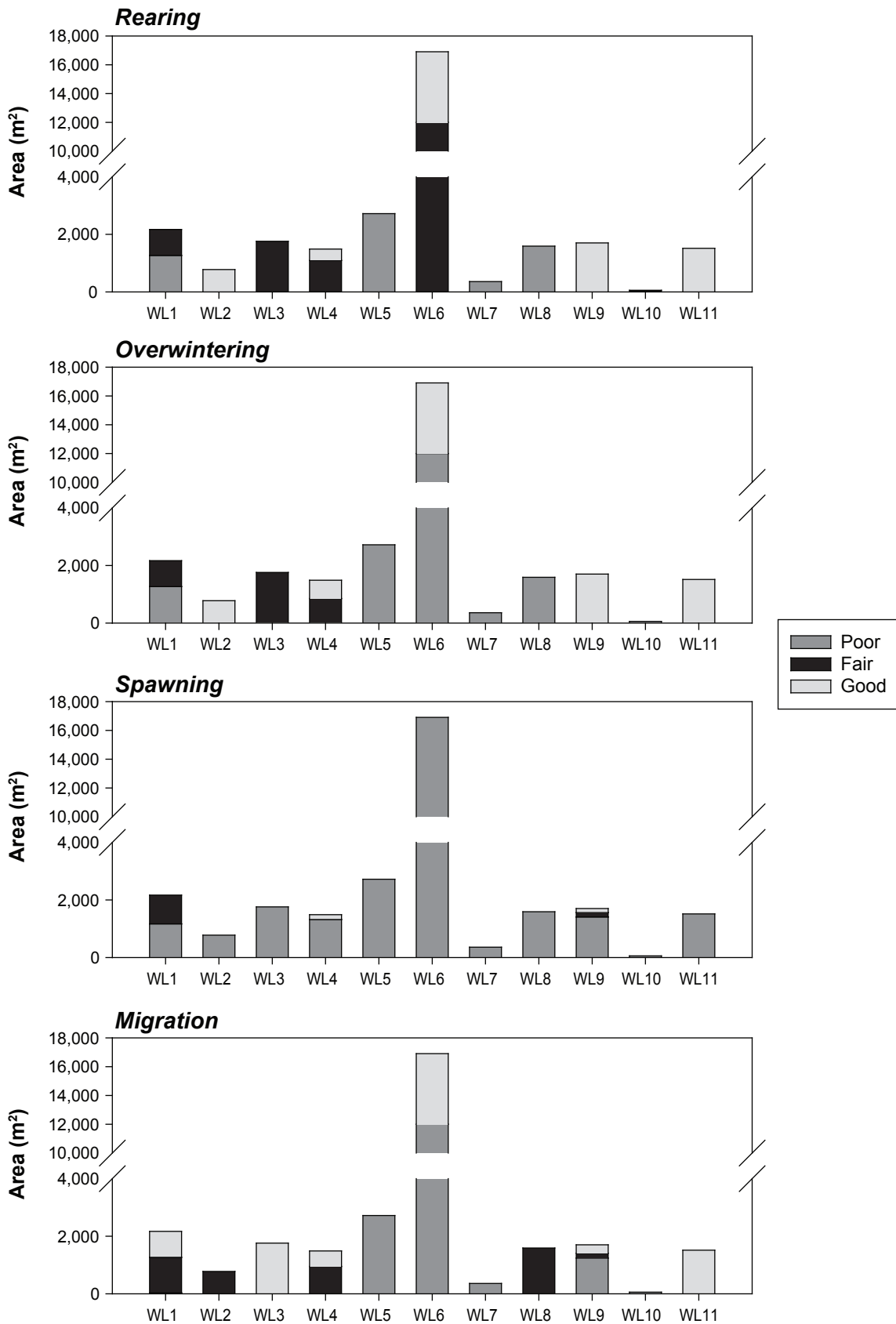


FIGURE 3.2-37



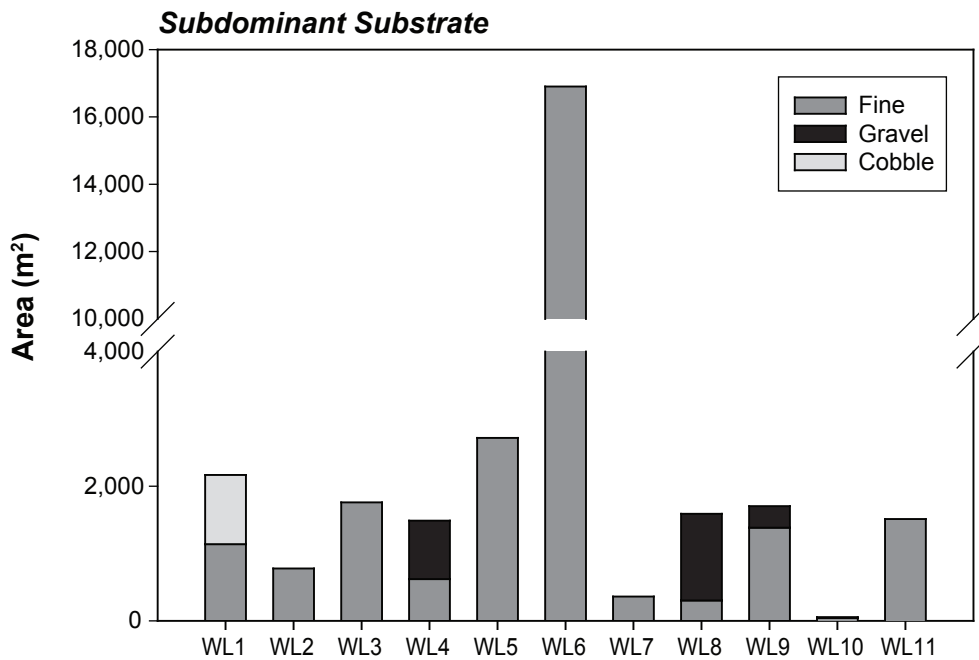
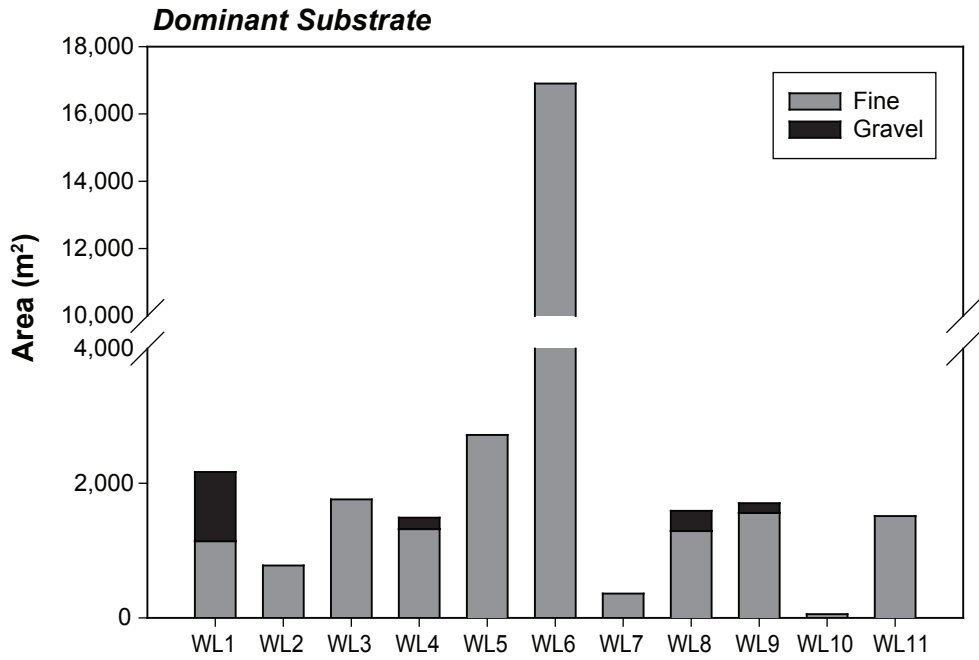


FIGURE 3.2-38



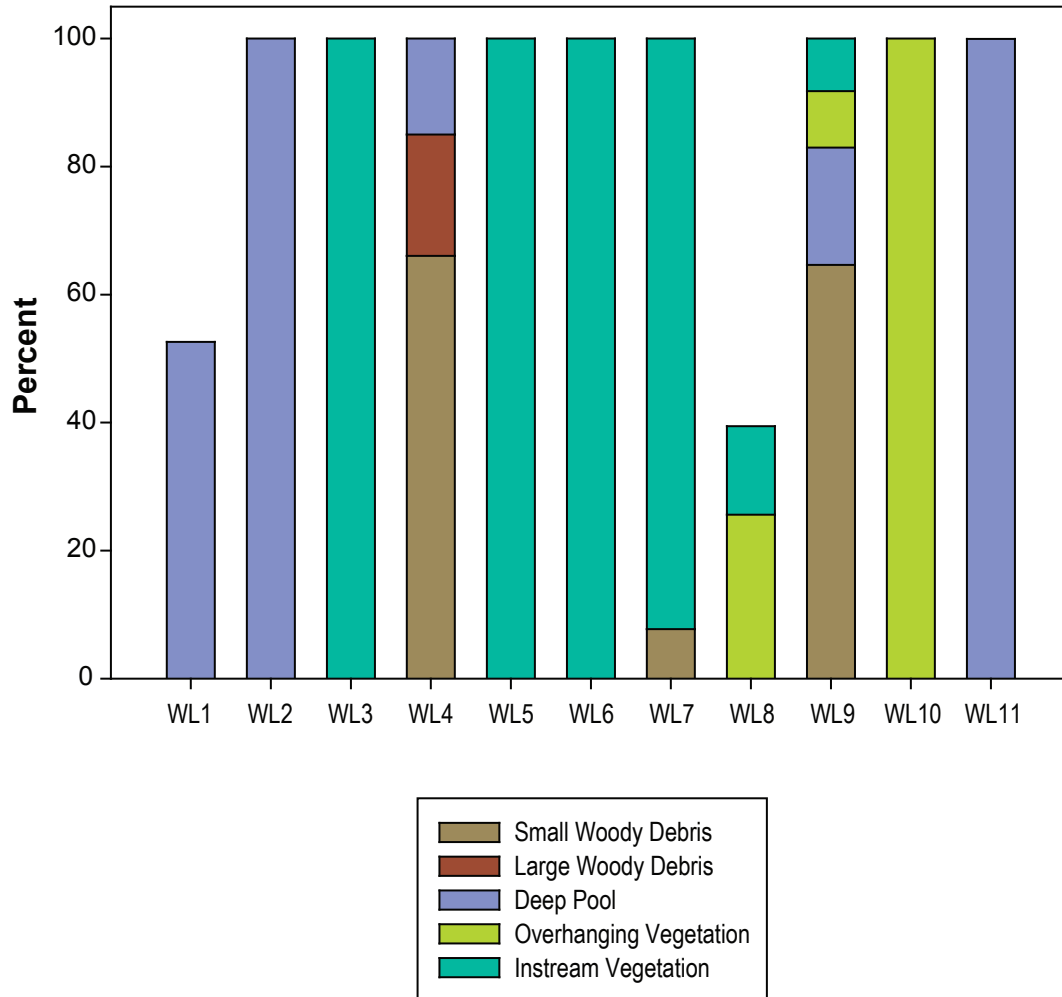


FIGURE 3.2-39

Dominant Cover Types in the Schaft Receiving Environment Wetlands



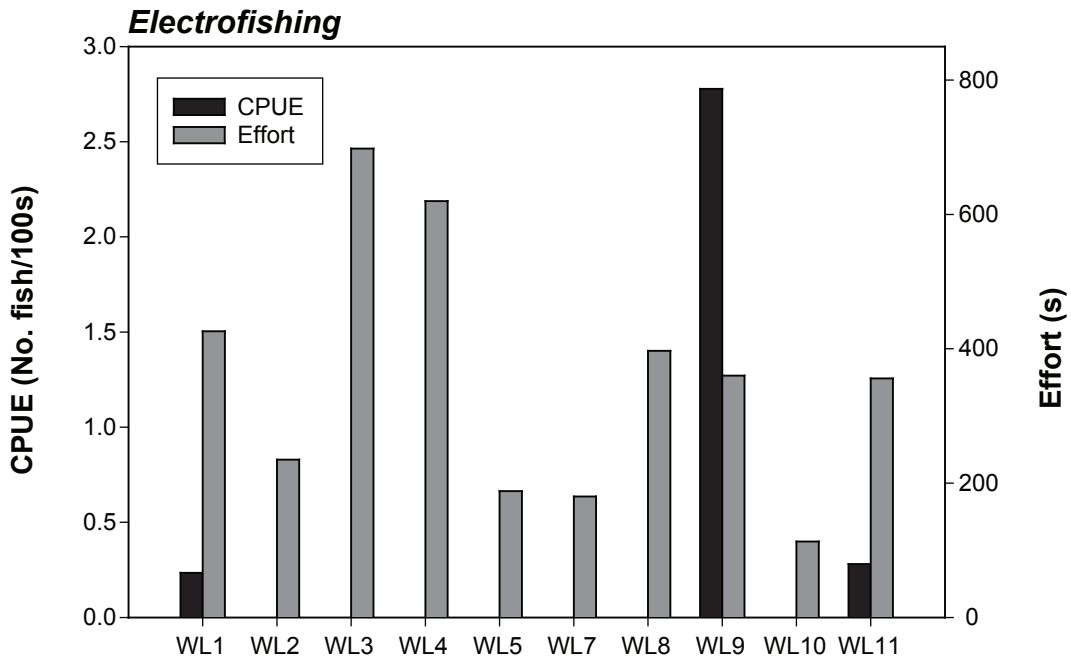
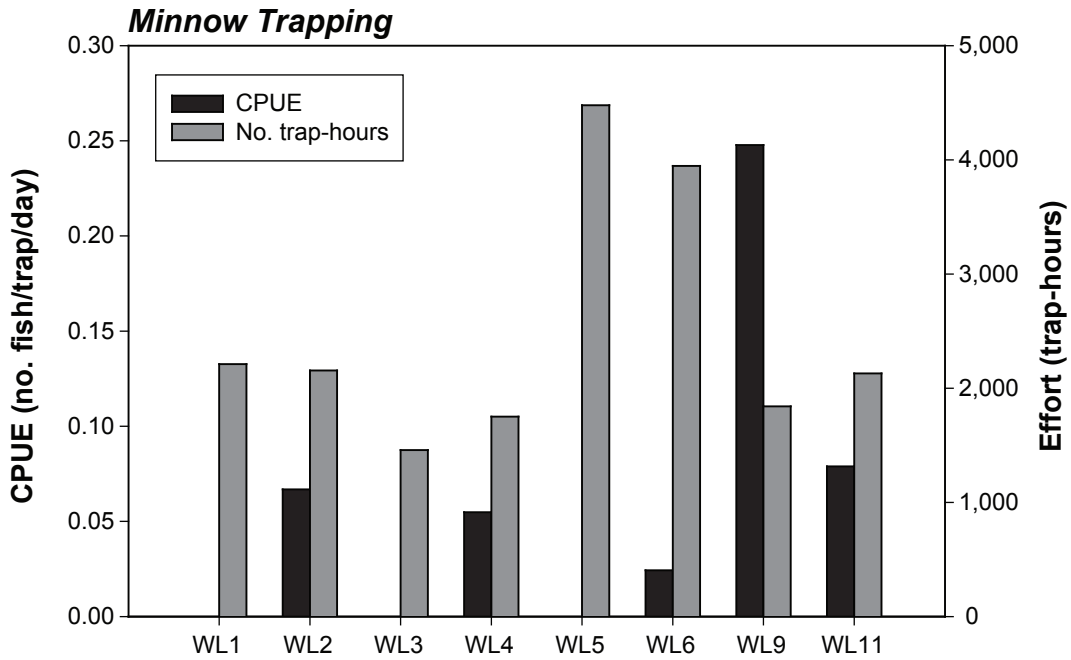


FIGURE 3.2-40



Wetland 9 had the highest CPUE for both sampling methods. This wetland is located adjacent to Mess Creek at the south end of the drainage. It is composed of a beaver-pond with a breached dam and an outflow stream that flows directly into Mess Creek. Water in both the pond and the outflow stream is clear, and the outflow stream has excellent habitat complexity and cover. These features make this waterbody ideal for rainbow trout.

Trout from five wetlands were measured and weighed in the field. Only one fish was captured in wetland 1, and it was lost before it could be measured. A scale malfunction resulted in inaccurate weights for fish from wetland 6; thus, these were deleted from the database. There was no significant difference in fish length between the receiving environment wetlands (ANOVA, $F_{4,47} = 1.27$, $P = 0.30$) (Figure 3.2-41). Trout from wetland 11 were heavier than fish from wetland 9 (ANOVA, $F_{3,40} = 2.25$, $P < 0.10$), while no significant differences in weight occurred among fish from the other wetlands.

There were not enough fish captured in each wetland to construct meaningful length-frequency distributions for each site; therefore, data was pooled to present a length-frequency distribution for all wetlands. The histogram was unimodal, with most fish measuring between 100 and 120 mm (Figure 3.2-42).

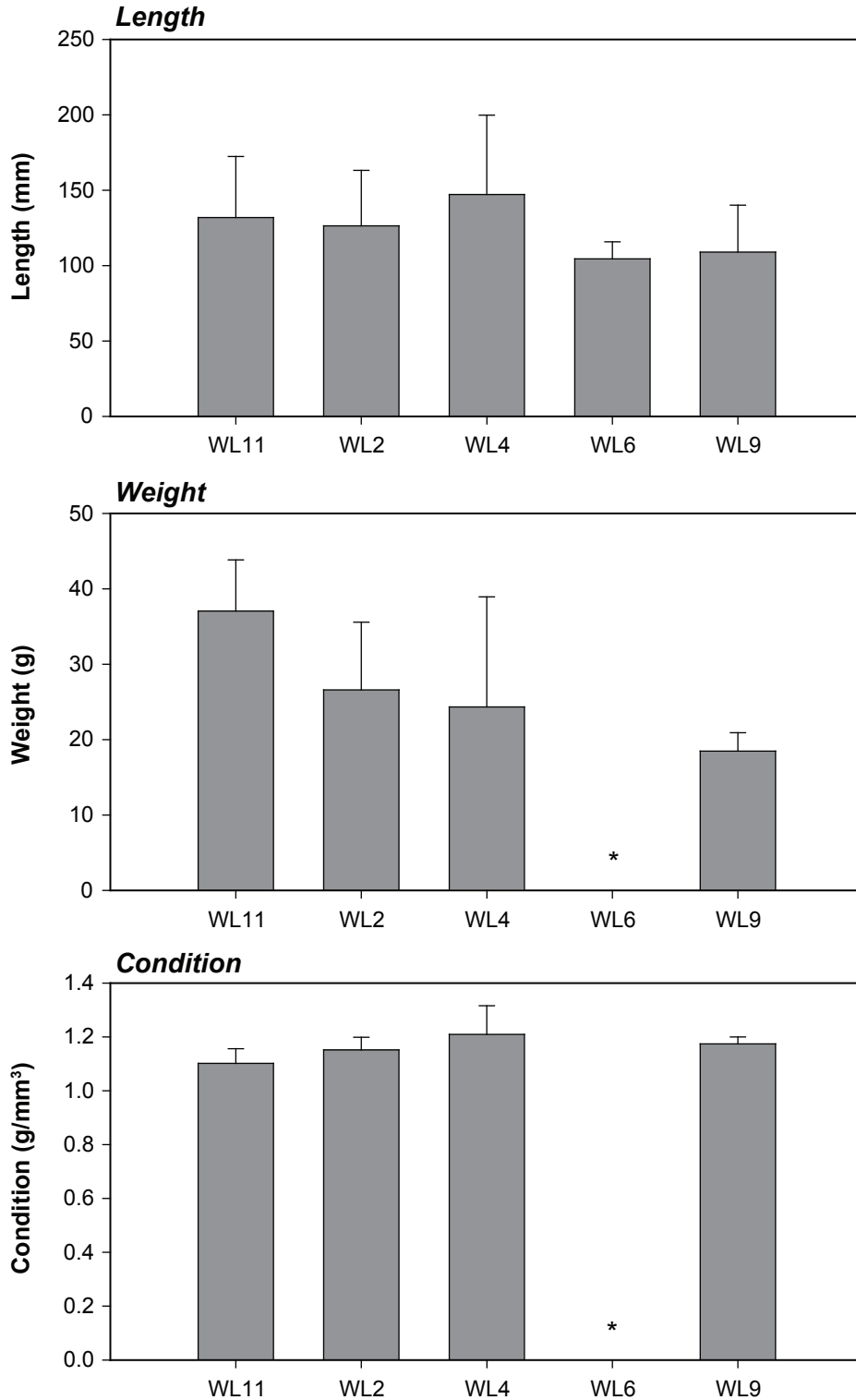
The slopes of the weight-length regressions for rainbow trout were tested among wetlands and did not differ significantly (GLM, $F_{2,42} = 2.06$, $P = 0.12$); thus, weight (with length as a covariate) was compared among wetlands. There was no significant difference in weight at length among tested wetlands (ANCOVA, $F_{3,39} = 0.27$, $P = 0.84$). To confirm these results, mean condition was compared among wetlands. Trout condition did not differ significantly among wetlands tested (ANOVA, $F_{3,40} = 0.62$, $P = 0.61$).

Because the weight-length relationship did not differ among wetlands, all fish data were pooled to present a single regression for fish from Schaft Creek wetlands. The relationship between length and weight was highly significant ($P < 0.001$), and length explained 98% of the variation in fish weight (Figure 3.2-43).

Not enough fish were captured from each wetland to construct meaningful age-frequency distributions; thus, a single histogram was constructed for all fish captured in wetlands. The vast majority of fish captured in wetlands were aged at 0 years (Figure 3.2-44). Fewer than 10 fish were captured from each age class from 1 to 3.

A von Bertalanffy growth model was constructed for all fish captured in wetlands to relate age to growth. The resulting model was significant ($P < 0.001$); however, age only accounted for 29% of the variation in fish length (Figure 3.2-45). The model predicted a maximum fish length of 352 mm, with a growth coefficient of 0.09 years^{-1} .

In general, fish living in wetlands in the Schaft Creek Project area were healthy. Sites in the fish-bearing areas had a high abundance of fish, especially where the water was clear and deep.



Notes: Error bars represent standard error of the mean.
 * Scale malfunction prevented weights from being collected.

FIGURE 3.2-41

**Mean Length, Weight and Condition
 of Rainbow Trout from Schaft
 Receiving Environment Wetlands, 2007**



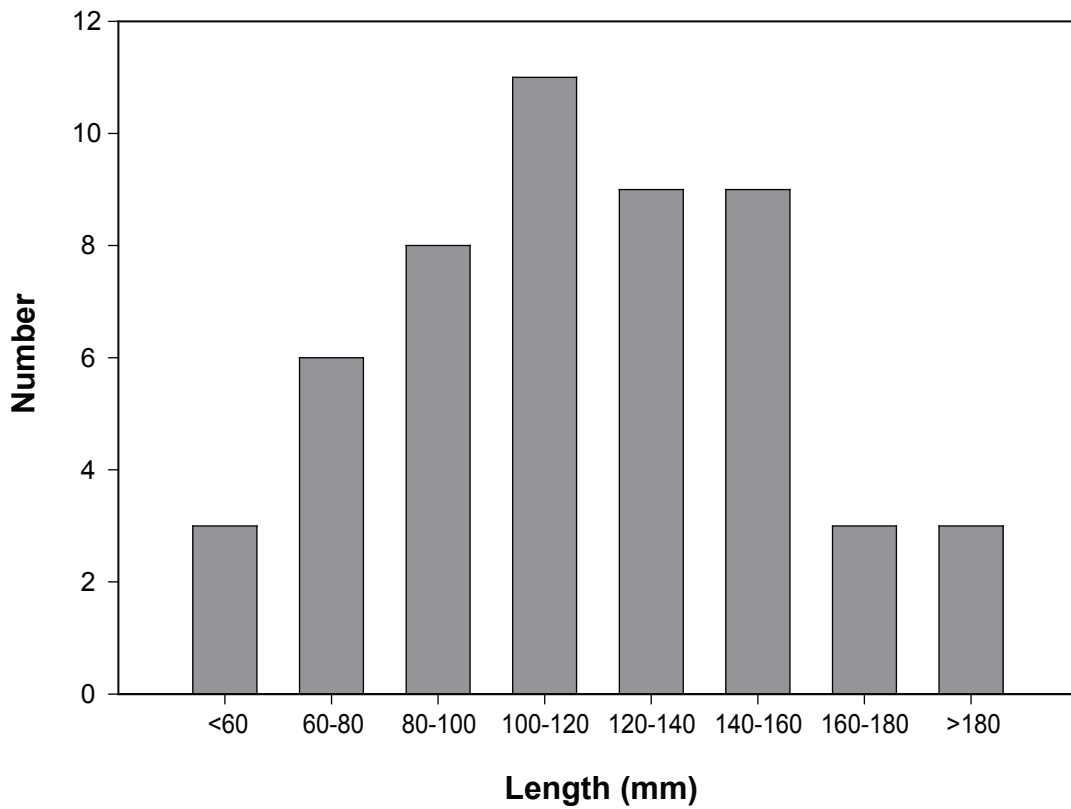


FIGURE 3.2-42



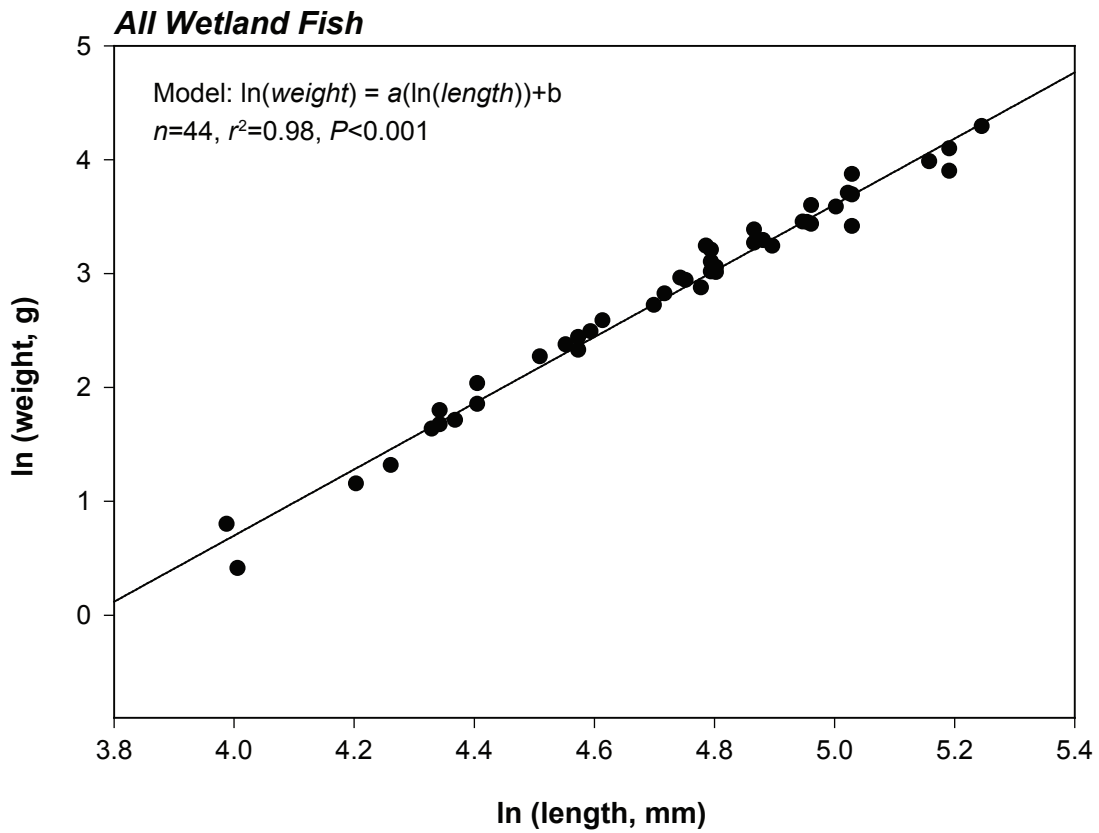


FIGURE 3.2-43



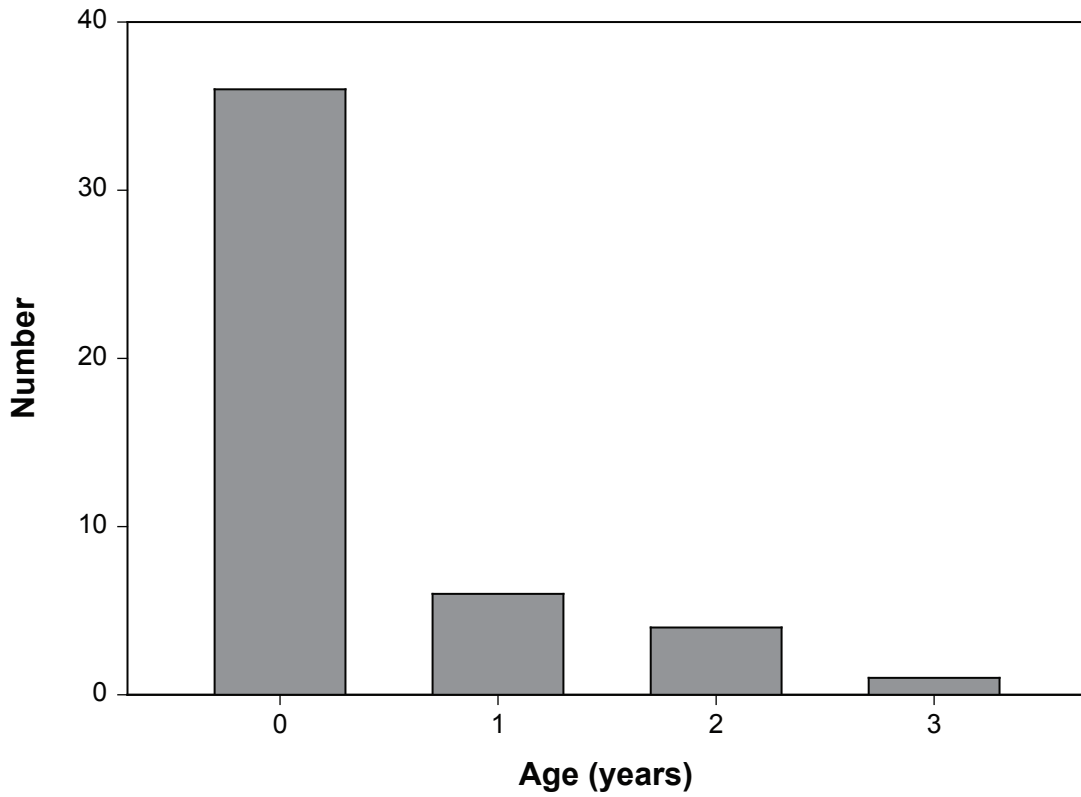


FIGURE 3.2-44



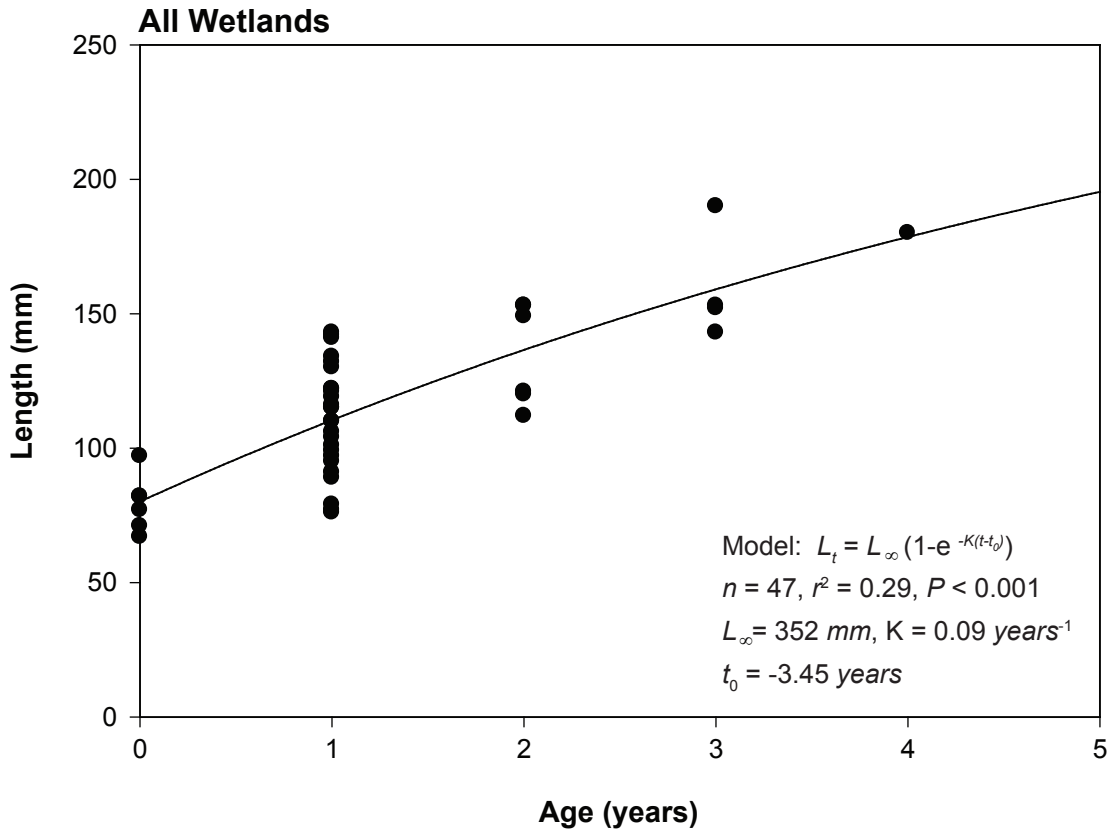


FIGURE 3.2-45



Von Bertalanffy Growth Model for Rainbow Trout from Schaft Receiving Environment Wetlands, 2007

3.2.3 Lakes

3.2.3.1 Fish Habitat

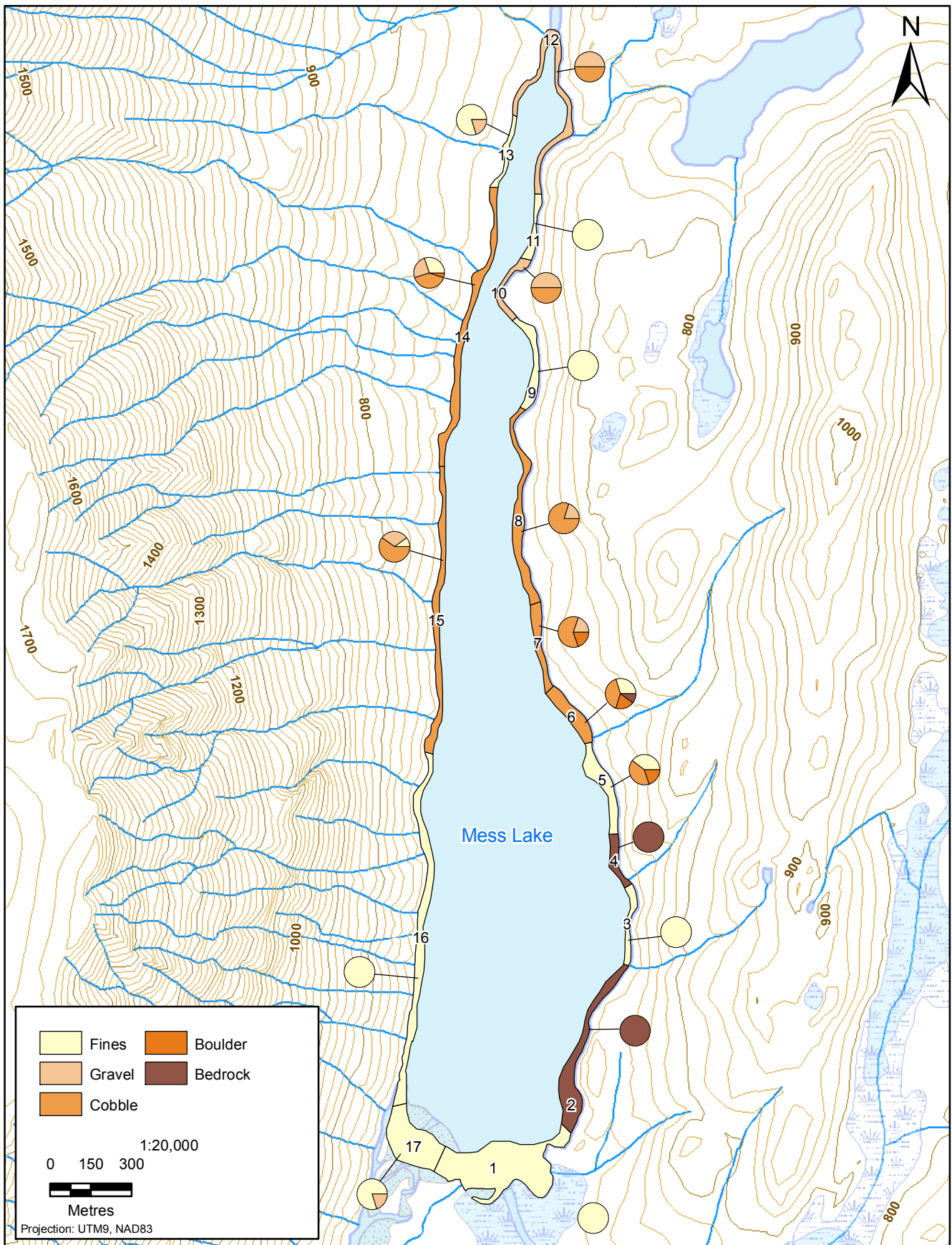
Lake 1 (Mess Lake)

Mess Lake is located on the mainstem of Mess Creek, approximately 55 km south of the Stikine River (Plate 3.2-12). It is a large, turbid lake bordered by steep talus slopes to the west and sloping shorelines to the east. The maximum depth of the lake was measured at 15 m; however, *Fish Wizard* lists the maximum depth as 19.1 m (Freshwater Fisheries Society of BC, 2005). The surface temperature at the time of sampling was 11°C, the surface conductivity was 120 µS/cm and the pH was measured as 8.8. Boulder substrate dominated the shoreline around the northern parts of the lake, while fine sand dominated the shoreline along the south side (Figure 3.2-46). Some areas along the eastern shore were dominated by bedrock shores. Mess Creek is the main inlet and outlet of the lake; however, numerous small streams enter at various points along the shoreline, mostly in the northern parts of the lake. At the inlet, Mess Creek is wide and turbid, with a low gradient and fine substrate. A delta takes up most of the southern shore of the lake where the river enters. At the outlet, Mess Creek proceeds through a turbulent canyon which is too dangerous to survey or approach from a boat.

High turbidity provides most of the cover to fish in the lake. Occasional logs and boulders provide additional cover along the shoreline (Figure 3.2-47). Because of the high turbidity and low cover, habitat quality in the lake is generally poor to fair; however, it may provide important overwintering habitat to fish living in adjacent streams.



Plate 3.2-12. Mess Lake looking north towards the outlet.



Lake Habitat Units and Substrate Types in Mess Lake

FIGURE 3.2-46

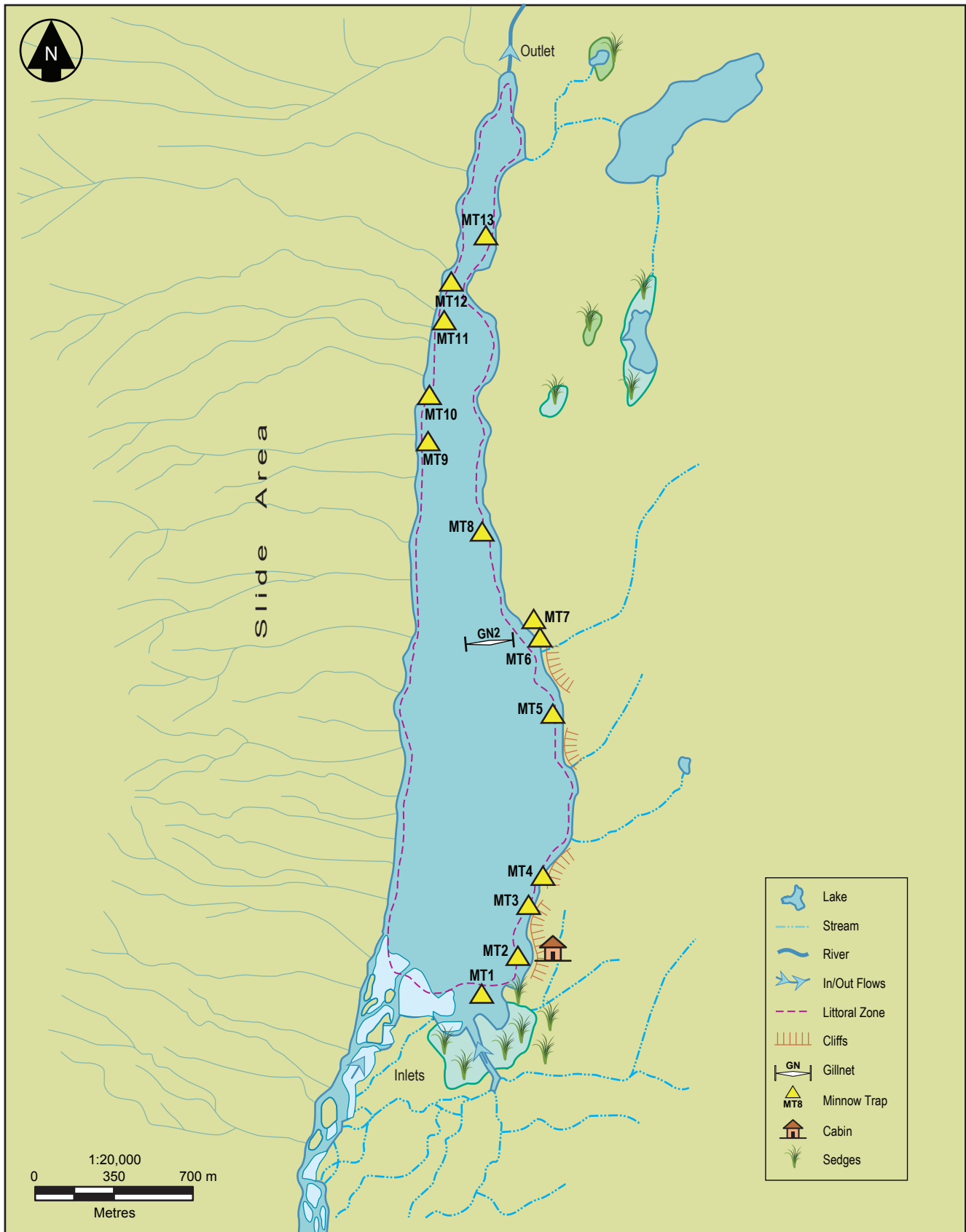


FIGURE 3.2-47



Habitat Schematic Diagram of Lake 1 (Mess Lake)



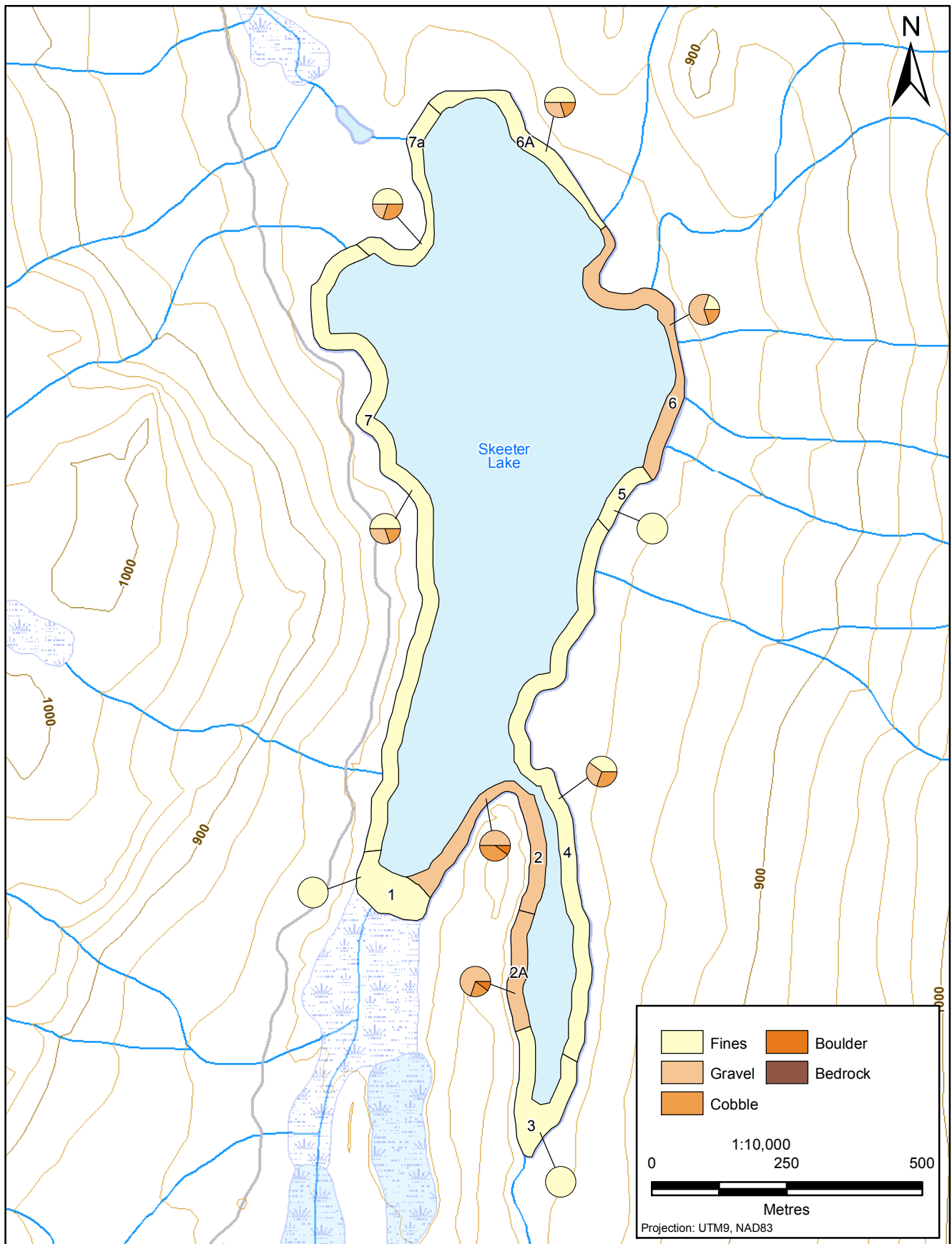
Lake 2 – Skeeter Lake

Skeeter Lake is a relatively deep, clear lake located on Skeeter Creek in a valley between Schaft Creek and Mess Creek (Plate 3.2-13). It falls within the footprint of one of the proposed tailings facility options. The maximum depth of the lake was measured at 40 m in July 2007. The surface temperature at the time of sampling was 12°C, the conductivity was 160 µS/cm and the pH was measured as 9.8. This is a very high value for pH and may have resulted from a malfunctioning meter. Fine substrates dominate the shoreline around most of the lake, with sporadic patches of gravel-dominated shoreline (Figure 3.2-48). A total of eight inlet streams were identified around Skeeter Lake, five of which contain habitat suitable for spawning and/or rearing salmonids. The main inlet and outlet is the mainstem of Skeeter Creek, which has been sampled as part of the receiving environment and contains excellent spawning, rearing and overwintering habitat. The outlet stream in particular flows at a low gradient through a wetland with abundant deep pools, gravel substrate and cover.

Cover in the lake is provided by large woody debris along the shoreline, as well as deep water and occasional boulders (Figure 3.2-49). Some aquatic vegetation is present near the inlet and outlet streams. Habitat quality in Skeeter Lake is good, with good cover and abundant spawning and rearing habitat in adjacent streams.



Plate 3.2-13. Aerial view of Skeeter Lake facing north.



Lake Habitat Units and Substrate Types in Skeeter Lake

FIGURE 3.2-48

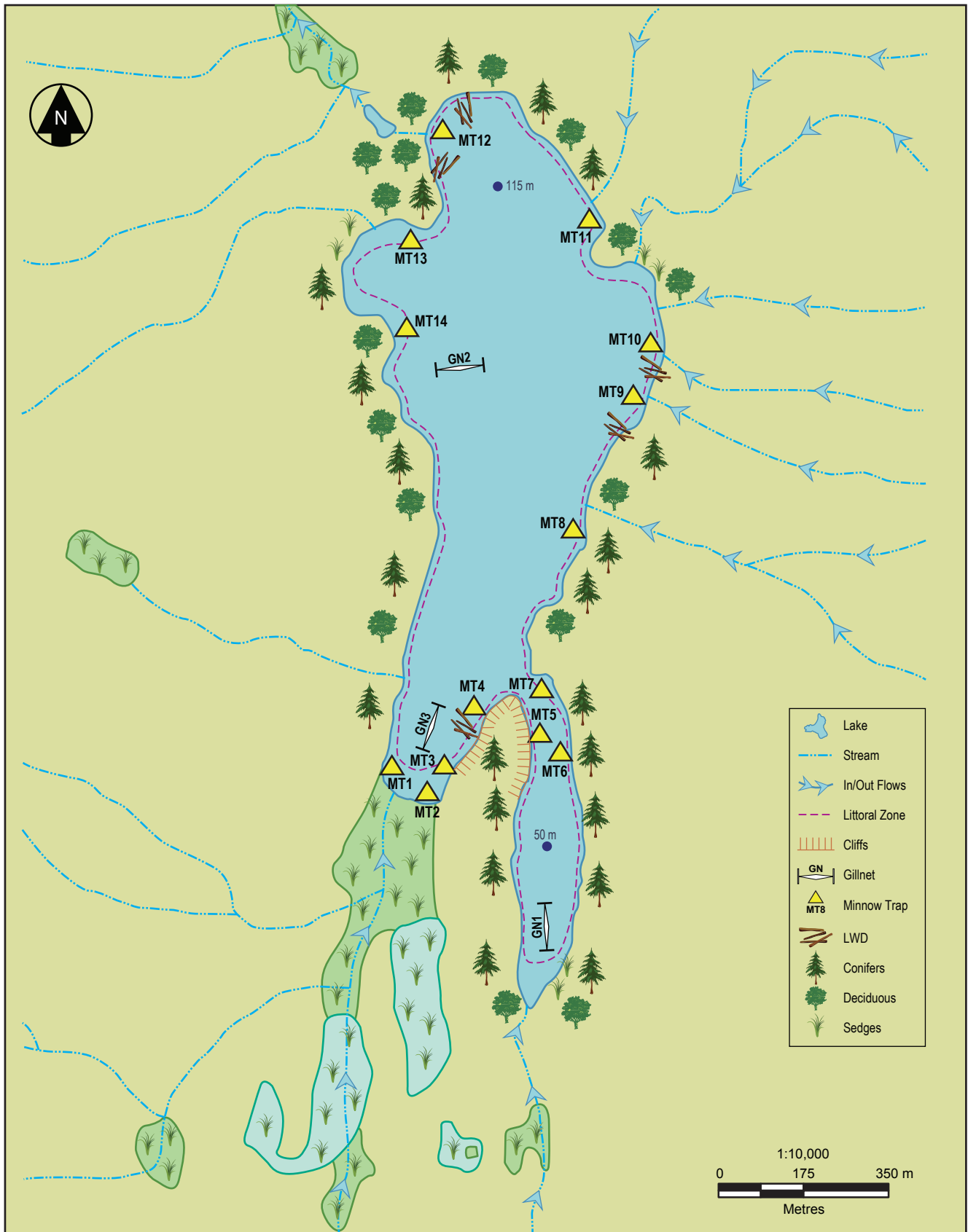


FIGURE 3.2-49



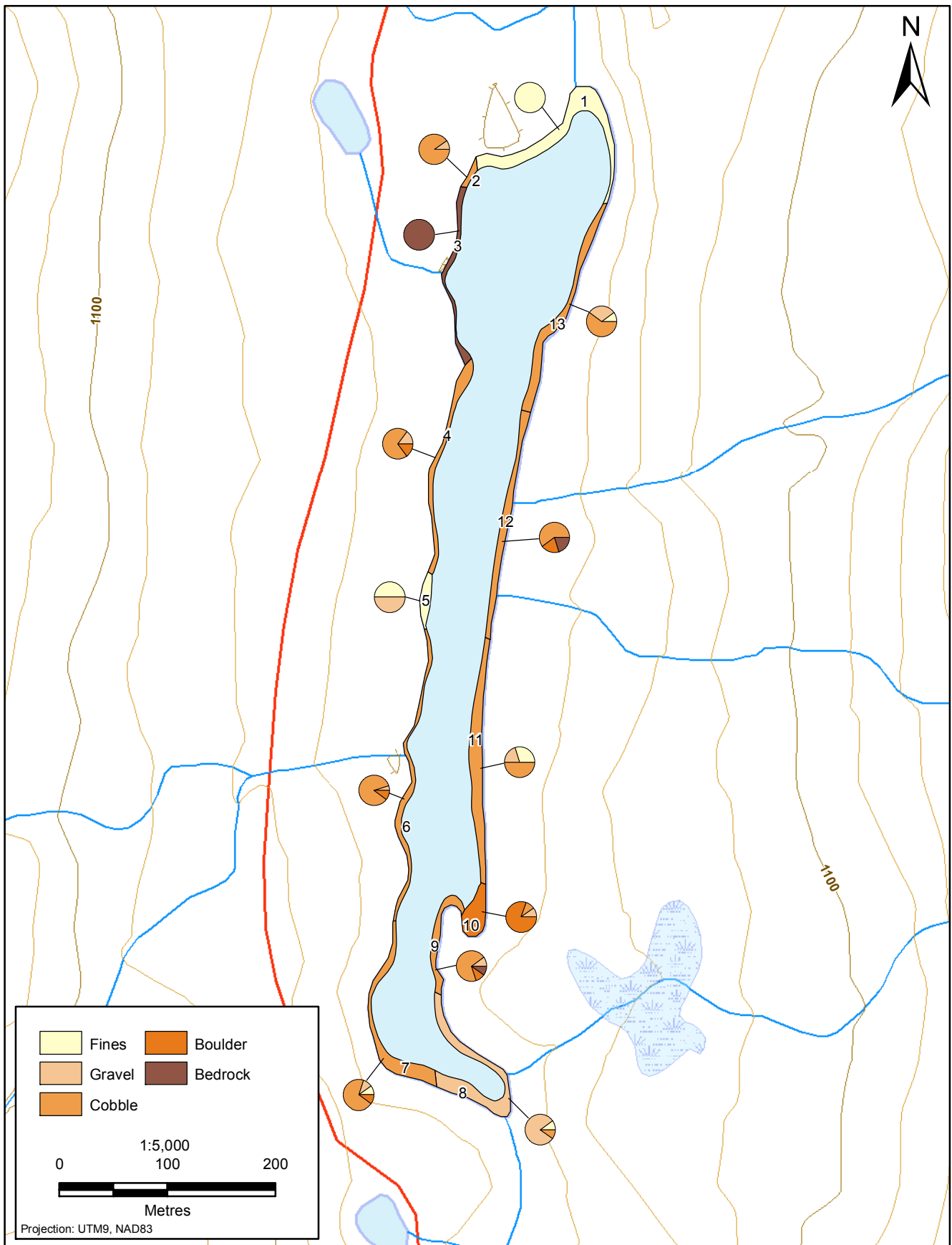
Lake 3

Lake 3 is a long, narrow lake at the headwaters of Mess Creek. It is located in the sub-alpine zone and is clouded by glacial sediment (Plate 3.2-14). The maximum depth measured in July 2007 was 12 m, the surface temperature was 6.5°C and the conductivity and pH were not recorded. Because of the steep shore and high turbidity, the amount of the littoral zone that was visible was very narrow. Shoreline substrates, where visible, were dominated by cobble substrate, followed by gravel and fine sediments (Figure 3.2-50). Some sections of the shoreline had a high abundance of bedrock substrate. Nine tributaries to Lake 3 were identified during the shoreline survey, three of which contained suitable spawning habitat for salmonids. The rest of the tributary streams were steep and rocky, containing no suitable habitat for any salmonid life stage.

The shoreline of the lake provides little cover due to the steeply sloping banks and low LWD abundance (Figure 3.2-51). Habitat quality in the lake is poor to fair due to the absence of cover and high turbidity; however, the presence of adjacent spawning habitat make it a possibility for fish rearing and overwintering.



Plate 3.2-14. Aerial view of Lake 3 looking north.



Lake Habitat Units and Substrate Types in Lake 3

FIGURE 3.2-50

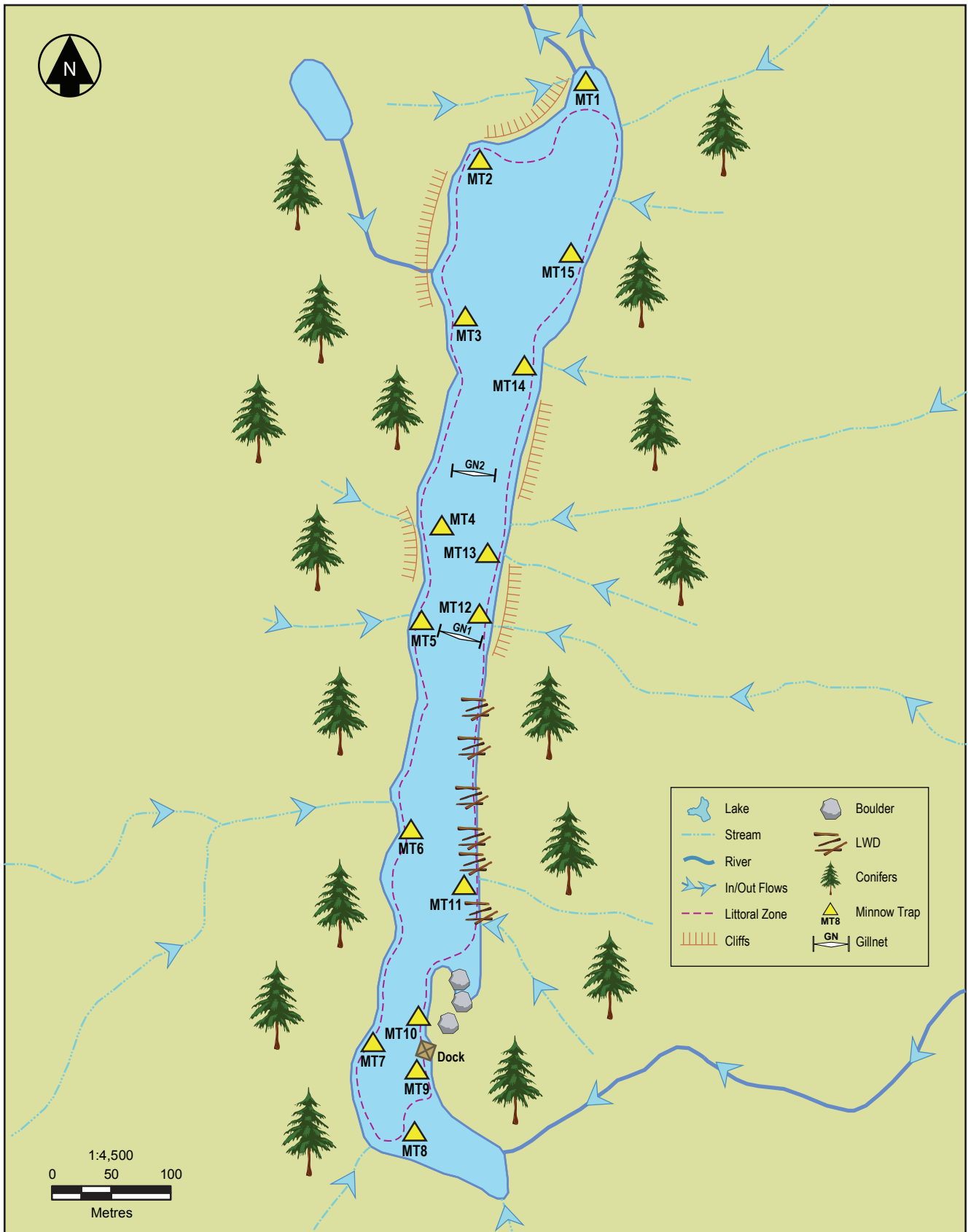


FIGURE 3.2-51



Habitat Schematic Diagram of Lake 3 (Upper Mess Lake)

Lake 4

Lake 4 is a large, clear, relatively shallow lake that is located on the plateau between Schaft Creek and Mess Creek, approximately 22 km north of the Project site (Plate 3.2-15). It was surveyed as a reference lake in 2006 and 2007. The maximum depth of the lake was measured as 5.5 m in July 2007, the surface temperature was 15°C, the surface conductivity was 170 µS/cm and the pH was 9.1. The pH may have been overestimated due to a malfunctioning meter. The shoreline substrate of the lake varies widely. The eastern shore is dominated primarily by fine sediments, with smaller proportions of gravel and cobble (Figure 3.2-52). The northwestern section of the lake has cobble and gravel shoals that extend far from the shoreline. Cobble and gravel dominate the southwestern shoreline. Two inlet streams were identified during the shoreline survey. These were small streams with low flow, and may provide fair rearing habitat; however, no spawning habitat was observed. The outlet stream flows from the southeast corner of the lake and is dominated by cobble and fine sediment. It may provide fair to good rearing habitat, but poor spawning habitat.

Cover in the lake is provided by a small amount of aquatic vegetation, large woody debris and occasional boulders along the shoreline (Figure 3.2-53). Habitat quality is generally fair to good due to the size and depth of the lake; however, the lack of nearby spawning habitat may be limiting.



Plate 3.2-15. Aerial view of the northeast section of Lake 4.

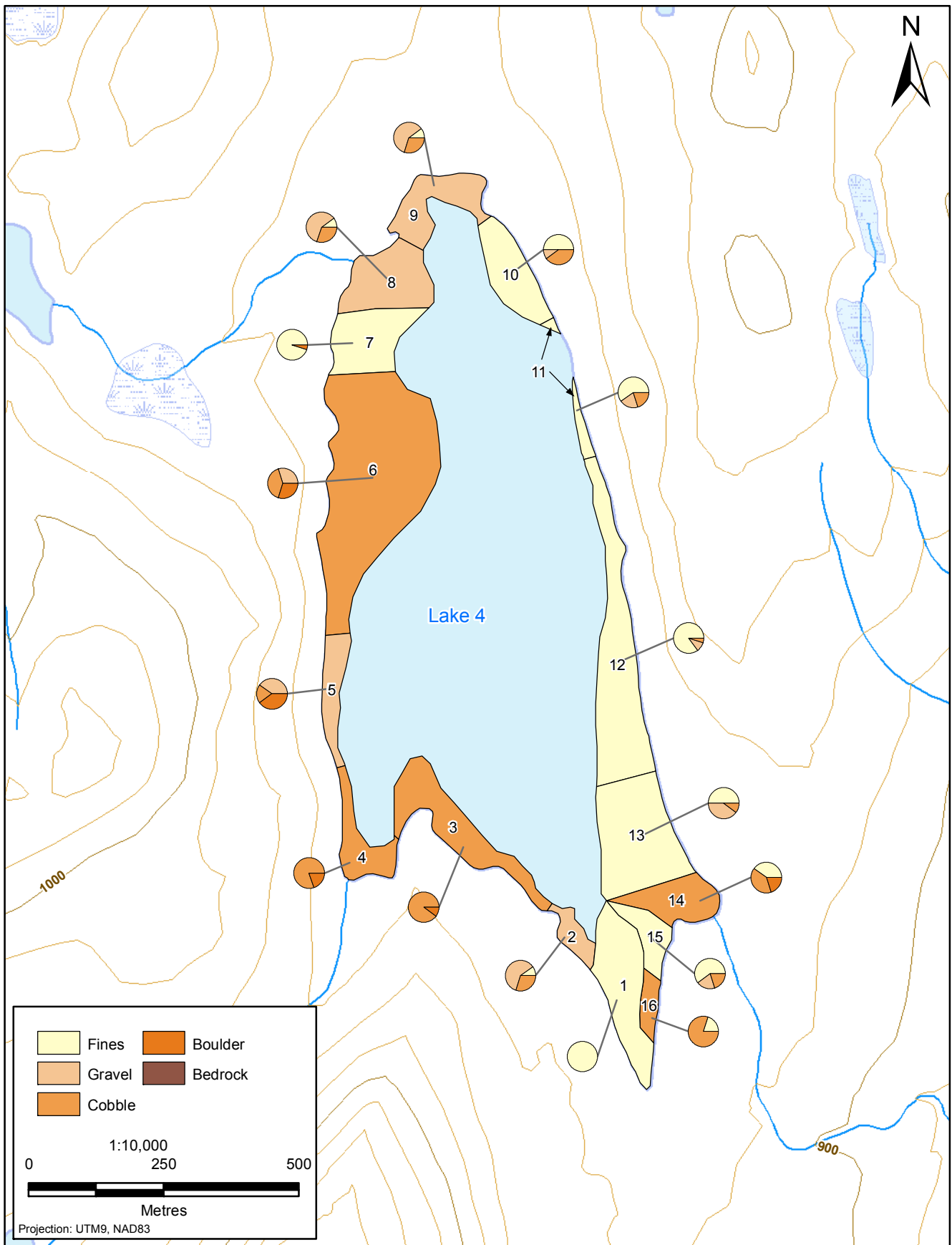


FIGURE 3.2-52

Lake Habitat Units and Substrate Types in Lake 4



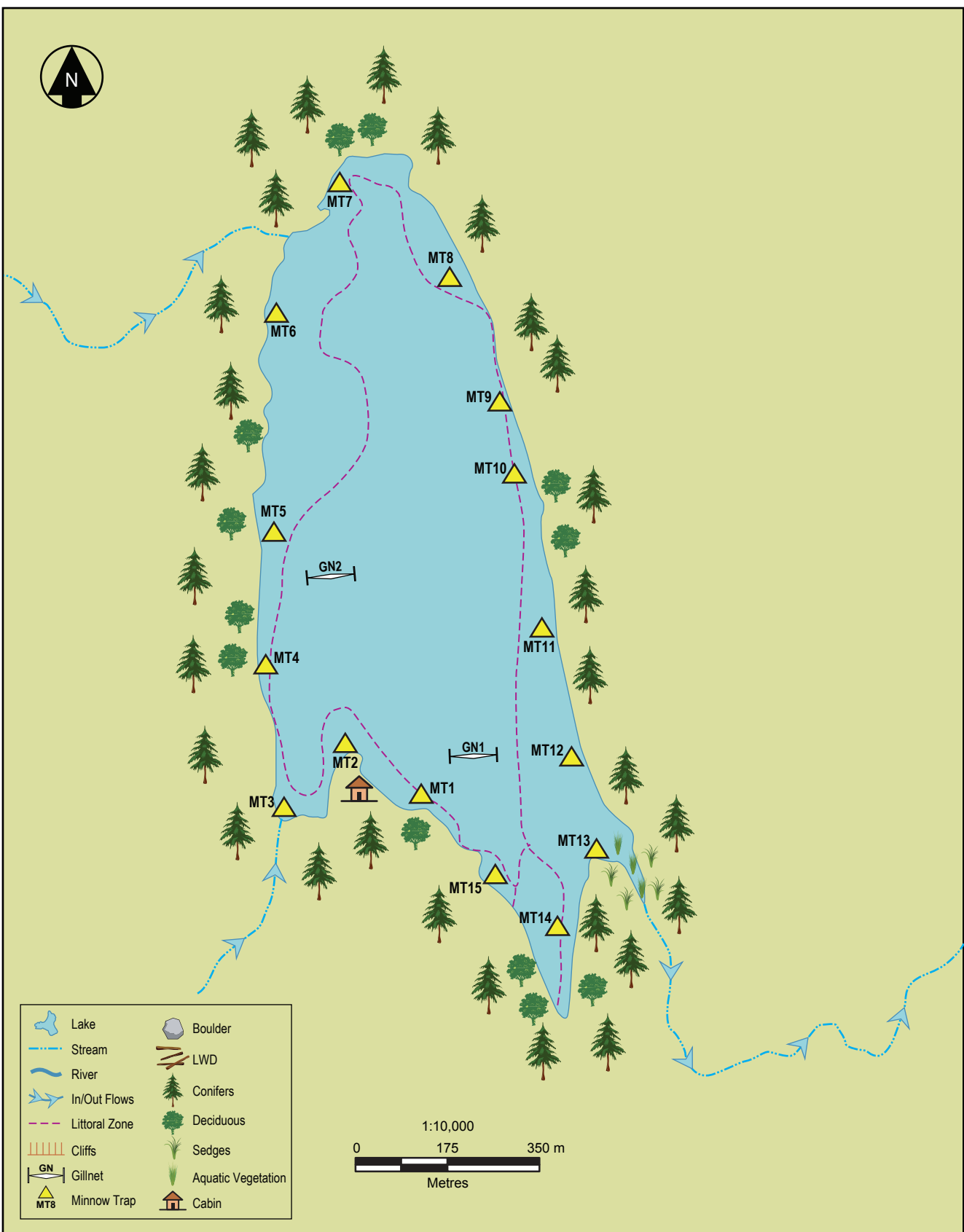


FIGURE 3.2-53



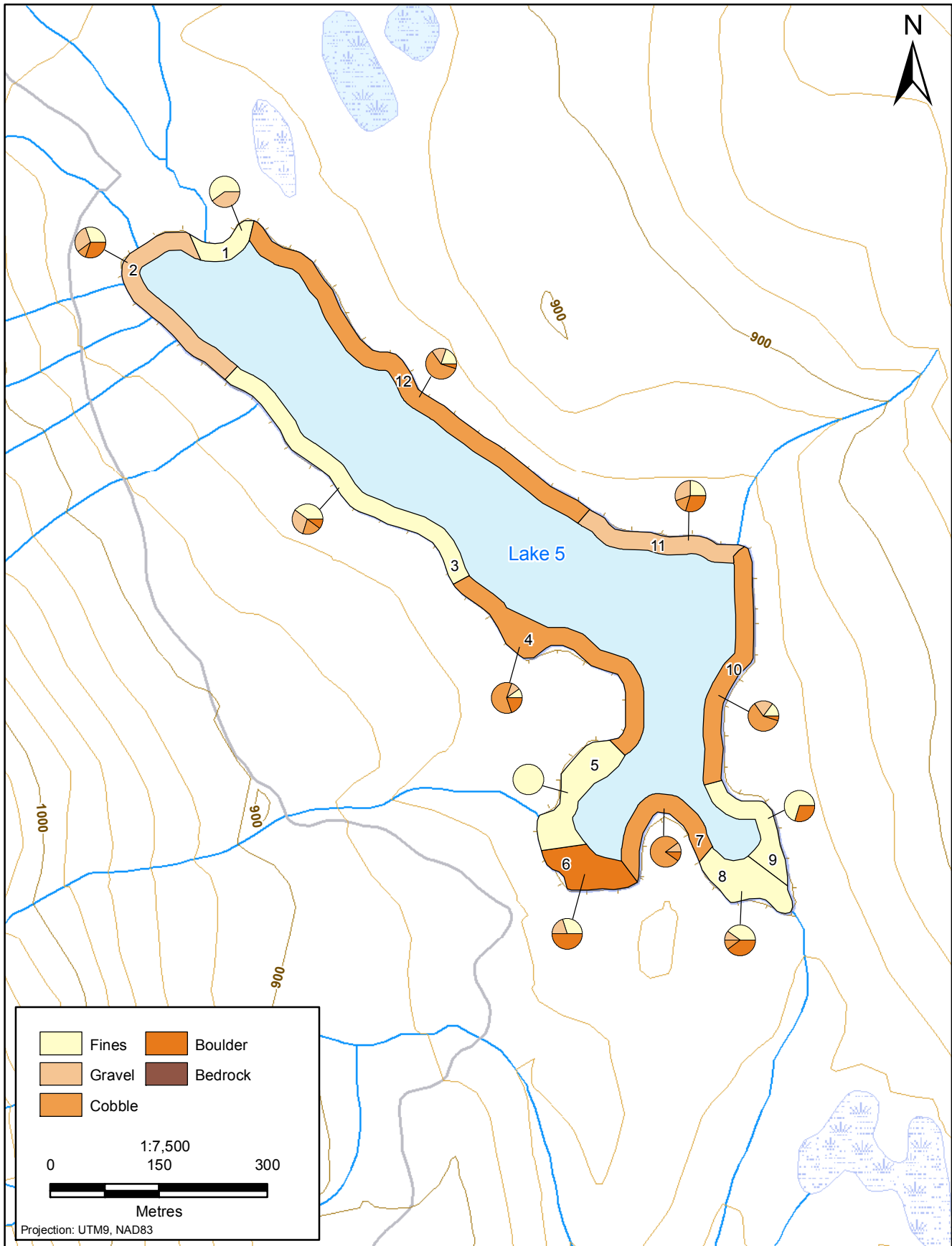
Lake 5 (Start Lake)

Start Lake is a moderately sized, deep, turbid lake located in the southern part of the Skeeter Valley, between Schaft Creek and Mess Creek (Plate 3.2-16). It empties to the south, eventually draining into Mess Creek. The maximum depth measured in July 2007 was 35 m, the surface temperature was 9°C, the conductivity was 140 µS/cm and the pH was not recorded. The shoreline substrate of the lake varied widely and included sections dominated by cobble, gravel and fine sediment (Figure 3.2-54). Most of the northeastern shore of the lake is dominated by cobble and gravel substrates. The southwestern shore of the lake is dominated by cobble and fine sediment, with patches of boulder substrate. Eight inlet streams were identified, three of which contain habitat suitable for salmonid spawning. Some of the other inlets also have fair to good rearing habitat. The main inlet to the stream at the north end is turbid, and likely supplies most of the glacial sediments that cloud the lake; however, most of the other tributaries are clear.

Cover is provided by the high turbidity and depth, as well as by large woody debris and boulders along the shoreline (Figure 3.2-55). Some aquatic vegetation is present near the inlet streams. Habitat quality in the lake is fair to good due to the depth, abundant cover and presence of suitable spawning habitat in the tributary streams.



Plate 3.2-16. Aerial view of Start Lake looking towards the northwest.



Lake Habitat Units and Substrate Types in Lake 5

FIGURE 3.2-54

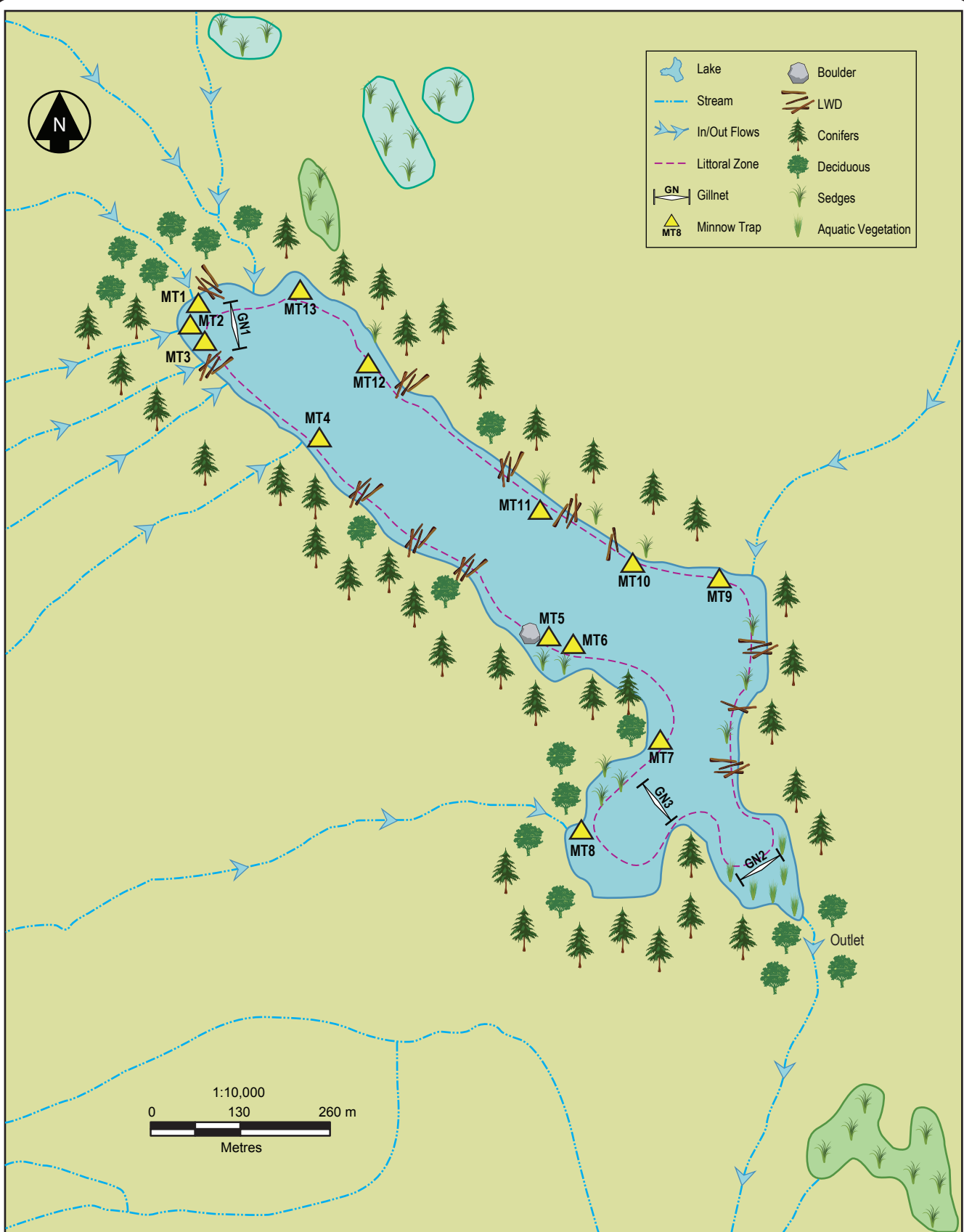


FIGURE 3.2-55



Lake 6

Lake 6 is a small, shallow, tannin-stained lake in the Skeeter Valley, located near the height of land that separates the northward-flowing waters from the southward-flowing waters (Plate 3.2-17). This lake drains south, eventually flowing into Start Lake, then into Mess Creek. The maximum depth measured in this lake was 1.7 m in 2007. The surface temperature in July 2007 was 16°C, the conductivity was 130 µS/cm and the pH was 9.1. The pH may have been overestimated due to a malfunctioning meter. The lakeshore is dominated by fine substrates, as is the lake bottom. A small patch of cobble substrate is present on the west shore near the constriction (Figure 3.2-56). Only one inlet and one outlet stream was recorded during the shoreline survey. Both streams are dominated by fine sediment and low flow, and may provide poor to fair rearing habitat for salmonids.

Cover in the lake is provided by aquatic vegetation, large woody debris and occasional boulders (Figure 3.2-57). The shallow depth of the lake provides little cover for fish. Overall habitat quality is poor to fair due to the shallow depth and fine substrate.



Plate 3.2-17. Lake 6 looking towards the northwest.

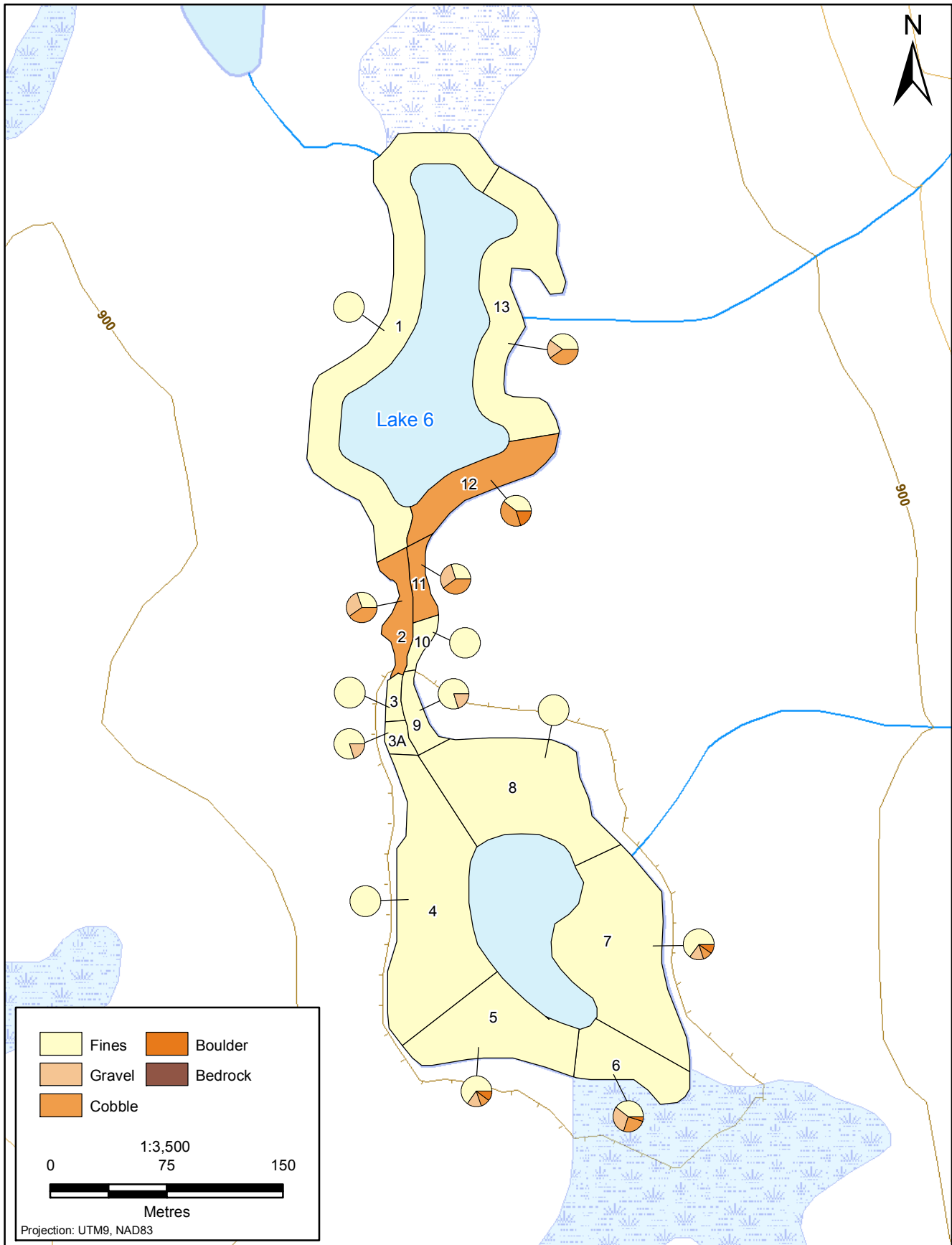


FIGURE 3.2-56

Lake Habitat Units and Substrate Types in Lake 6



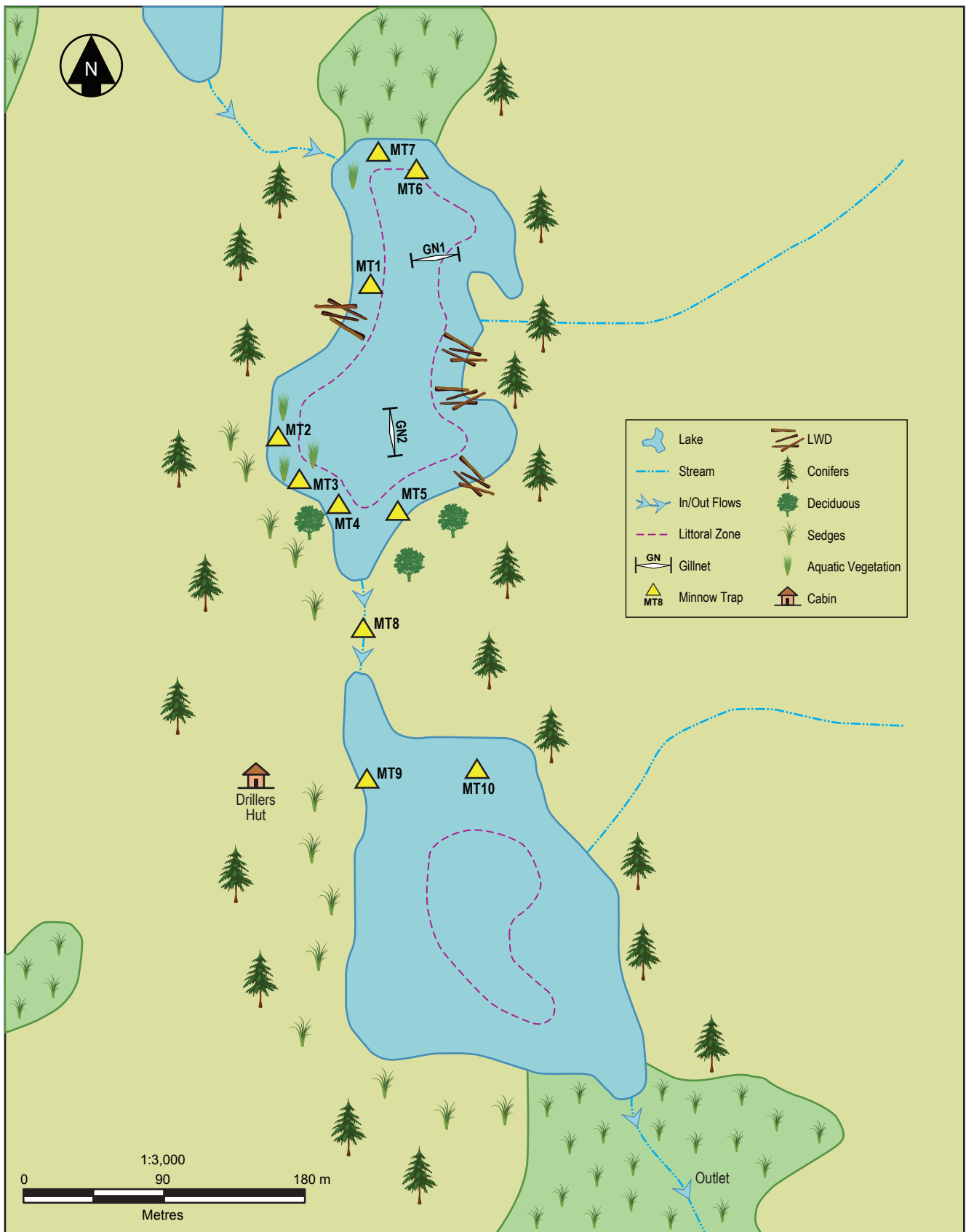


FIGURE 3.2-57



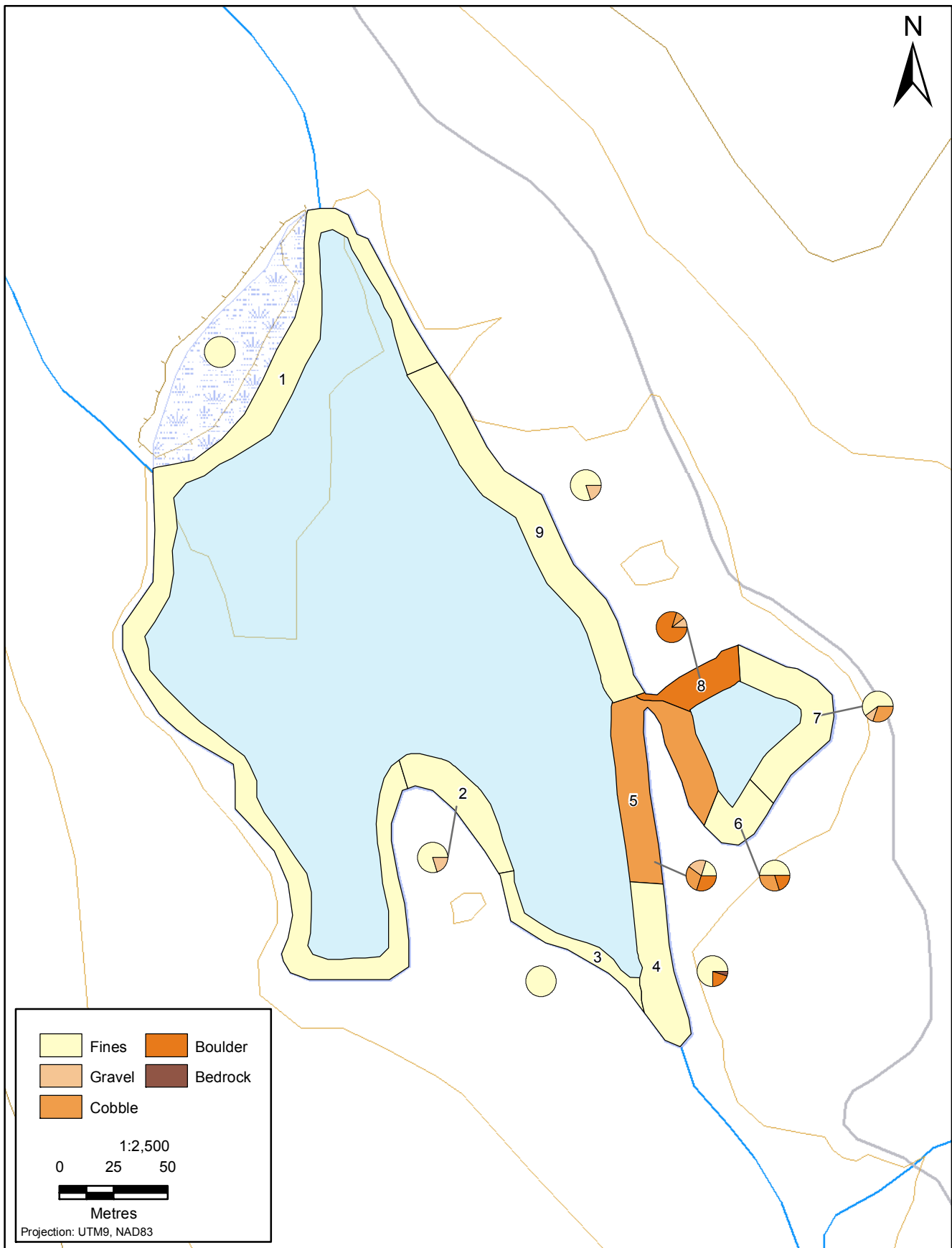
Lake 7

Lake 7 is a small, shallow pond located close to Start Lake (Plate 3.2-18). It drains south, flowing into Start Lake, then eventually into Mess Creek. The maximum depth of the lake was measured as 1.3 m in July 2007. The surface temperature at the times of sampling was 9°C, the conductivity was 130 $\mu\text{S}/\text{cm}$ and the pH was 8.9. The pH may have been overestimated due to a malfunctioning meter. Most of the lakeshore and bottom are dominated by fine substrates, with exceptions near the small lagoon at the east side of the lake, where cobble substrate was common (Figure 3.2-58). A sedge wetland occupies the north shore of the lake. Four tributaries were identified around the small lake, including one that contained suitable habitat for spawning.

The shallow depth and clarity of this lake do not provide much cover. Shelter is mainly provided by large woody debris along the shoreline (Figure 3.2-59). Habitat quality is fair to good along the margins where cover is abundant, but poor in the middle due to the shallow depth and lack of shelter.



Plate 3.2-18. Aerial view of Lake 7 looking towards the northwest.



Lake Habitat Units and Substrate Types in Lake 7

FIGURE 3.2-58

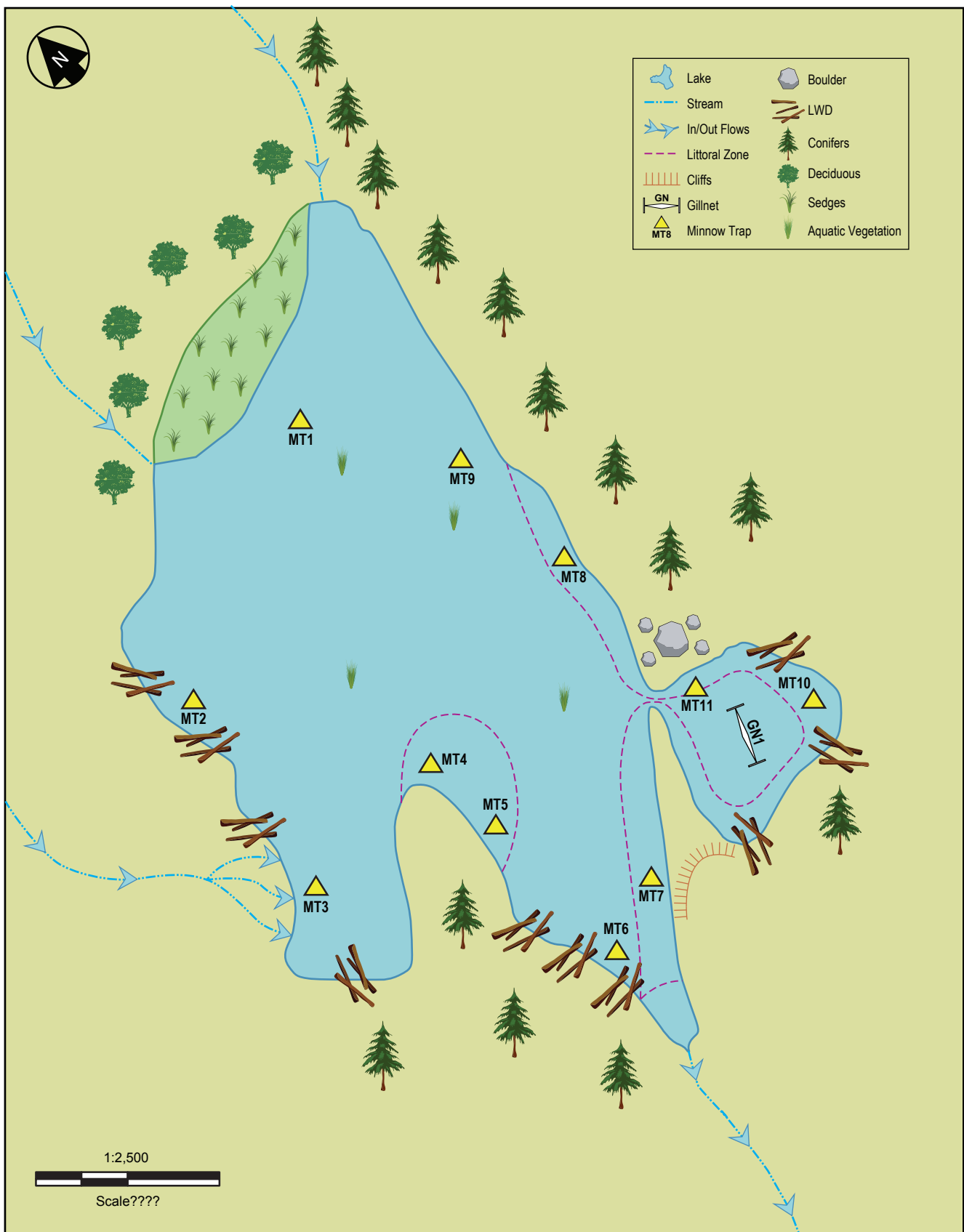


FIGURE 3.2-59



3.2.3.2 Fish Community

Rainbow trout were captured in three lakes in the Schaft receiving environment in 2007: Lake 1 (Mess Lake), Lake 5 (Start Lake) and Lake 7 (Plate 3.2-19). One suspected Chinook salmon was also captured in Mess Lake. Descriptions of this fish and its implications for the Project are presented in section 3.2.1.1 under the heading “Barrier Assessment”.



Plate 3.2-19. Rainbow trout captured in a gillnet in Lake 7.

Total CPUE was calculated for minnow traps and gillnets. Minnow trapping was effective at catching fish in Lake 1 (Mess Lake) and Lake 5 (Start Lake), while gillnetting was effective in Lake 5 (Start Lake) and in Lake 7. Minnow trapping CPUE was similar in both lakes where fish were caught, and ranged from 0.032 to 0.034 fish/trap/day (Figure 3.2-60). Gillnetting CPUE was much higher in Lake 7 (64.47 fish/m²/day) than in Lake 5 (0.09 fish/m²/day). Lake 7 is much smaller, much shallower, and less turbid than Lake 5; therefore, it is possible that the fish in Lake 7 are more likely to use the open water areas than fish in Lake 5.

Rainbow trout from Lake 7 were significantly longer than fish from Start Lake and Mess Lake (ANOVA, $F_{2,37} = 16.49$, $P < 0.05$) (Figure 3.2-61), despite the fact that this lake is much smaller. The recorded values for weight were incorrect for many of the larger fish due to a scale malfunction; therefore, mean weight could not be compared among lakes, and length-weight regressions were inaccurate.

Not enough fish were captured in lakes to construct meaningful length-frequency distributions for each lake, so data was pooled together. The length-frequency distribution for fish in the Schaft receiving environment lakes showed four modes: 60 to 80 mm, 100 to 120 mm, 160 to 180 mm, and over 220 mm (Figure 3.2-62). The distribution shows that in general, larger fish are abundant in the Project area lakes. This is to be expected since rainbow trout often migrate into lakes as they mature to take advantage of different food sources.

The age-frequency distribution constructed for the Schaft Project lakes showed that over half of the fish captured were 2 years of age or older (Figure 3.2-63). This is another indication of the shift in habitat use that occurs as rainbow trout age and start to make more use of lakes for feeding.

The von Bertalanffy distribution constructed for all lake-dwelling fish captured predicted a maximum length of 1,070 mm, with a growth coefficient of 0.06 years^{-1} and an age at 0-length (t_0) of -0.82 years (Figure 3.2-64). This estimate likely exaggerates the maximum length attainable by fish in these lakes, and may be a result of the narrow age-range in the data.

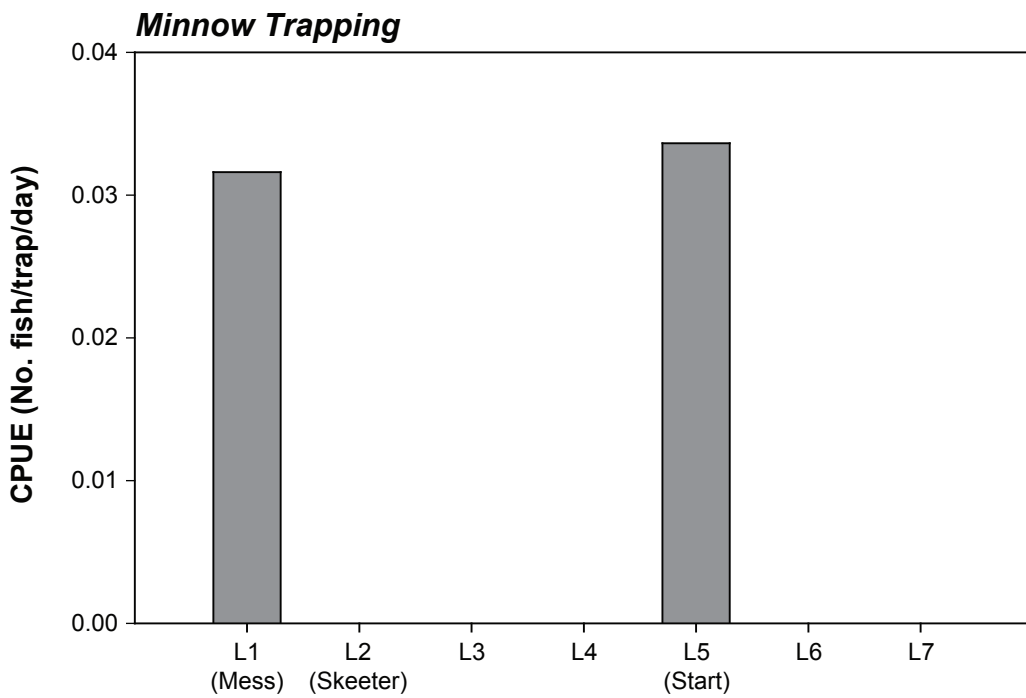
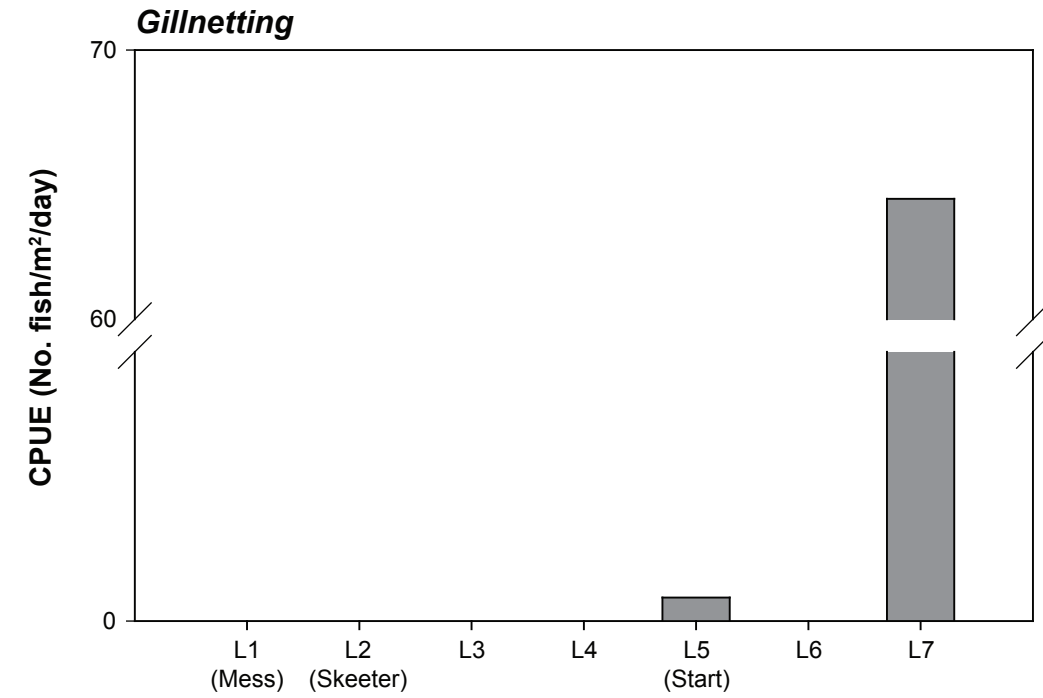
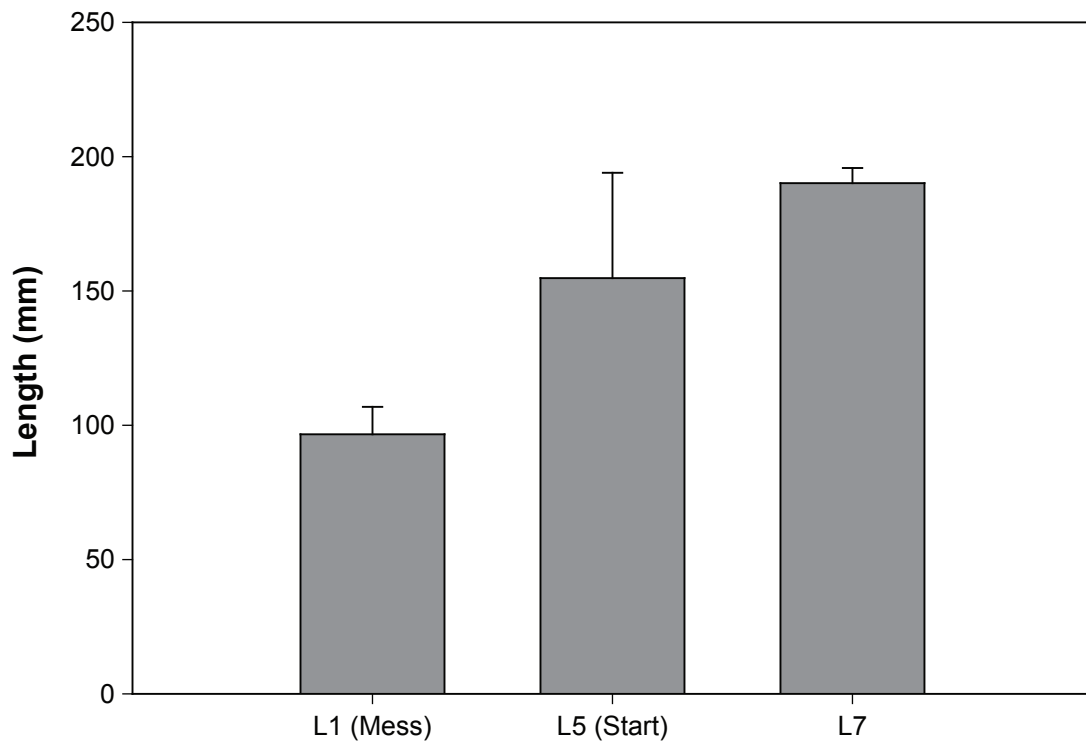


FIGURE 3.2-60





Note: Error bars represent standard error of the mean.

FIGURE 3.2-61



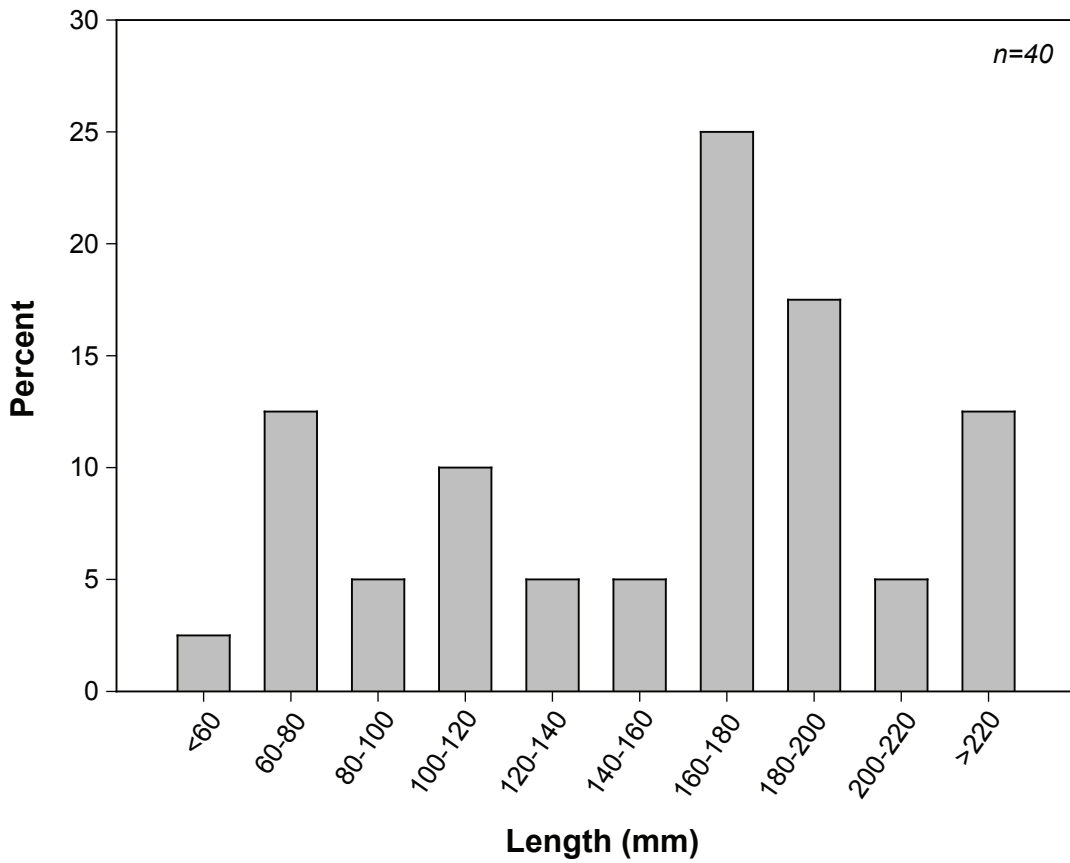


FIGURE 3.2-62



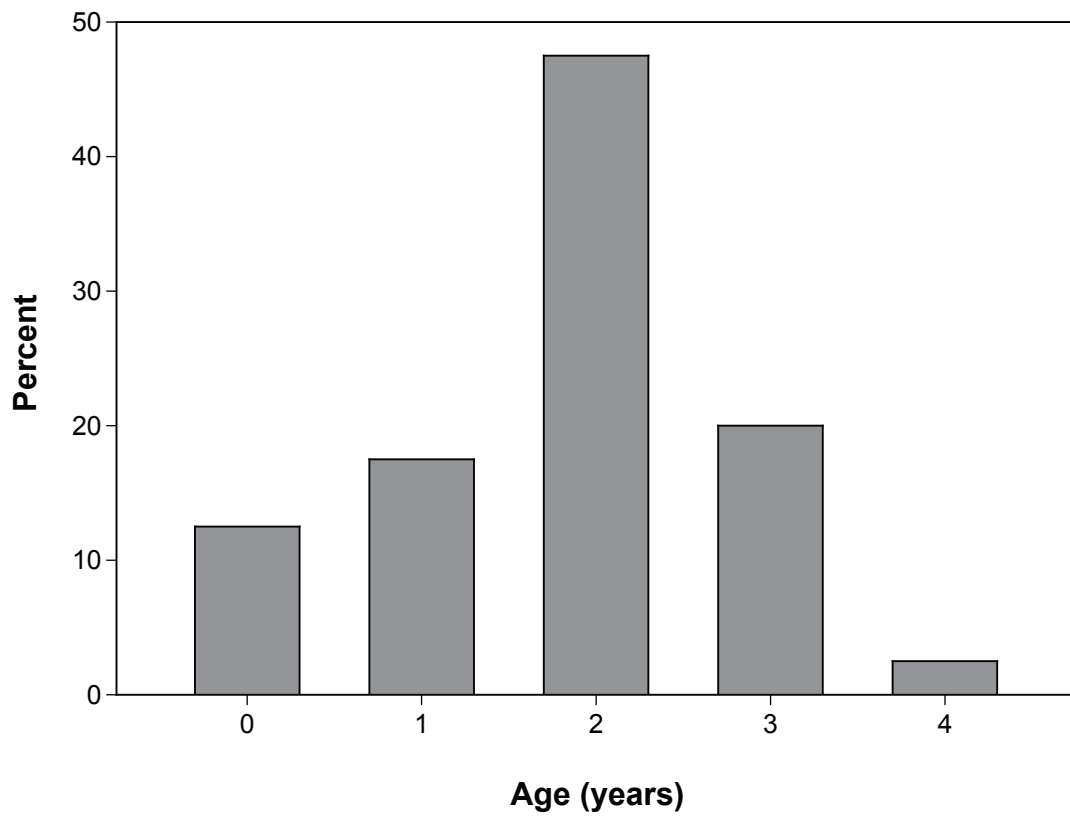


FIGURE 3.2-63



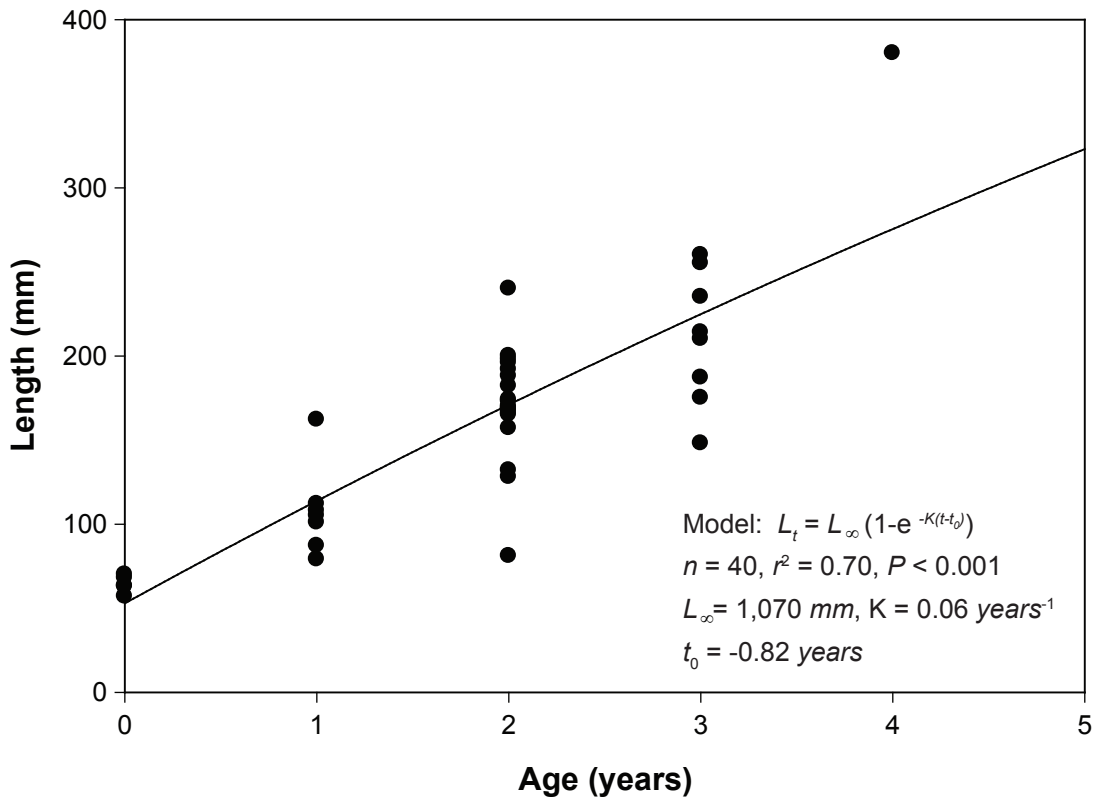


FIGURE 3.2-64



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Johnston, N.T. and P.A. Slaney. 1996. *Fish Habitat Assessment Procedures*. Watershed Restoration Technical Circular No. 8. Ministry of Environment, Lands and Parks and Ministry of Forests, Vancouver, BC.

Resources Inventory Standards Committee (RISC). 1999. *Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Site Card Field Guide*. Victoria, B.C.

Resources Inventory Standards Committee (RISC). 2001. *Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures*. Victoria, B.C.

**APPENDIX 3.1-1
SITE CARDS COMPLETED FOR STREAM CROSSINGS ALONG
THE PROPOSED SCHAFT ACCESS ROUTE**



FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 1000 Site # 100

PROJECT

Project Name: Schaft Creek
Stream Name (gaz.): MESS CREEK Project Code: 17415
Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-1
Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
ILP Map#: 104G.016 ILP #: 1000 NID Map #: 104G.016 NID #: 10000 Reach #: 1.0 Site #: 100
Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
GIS UTM (Z.E.N): 9.382752.6332127 Ref. Name:
Date: 2007/08/09 Time: 10:00 Agency: C660 Crew: SH KM RD RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg
Channel Width (m):	MS	0.60	2.50	0.80	1.60	1.80	0.90					1.37
Wetted Width (m):	MS	0.30	2.50	0.60	1.00	1.50	0.70					1.10
Pool Depth (m):	MS	0.16	0.15	0.13		0.10						0.13

	Gadient %	Mtd	Avg
Method I:	7.0	C	7.00
Method II:		C	

Wb Depth: .7 .6 .9 Avg: 0.73 Method: MS Stage: L M H

No Vis.Ch.: Intermittent:
Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	N	N	D	S
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
2 21-40%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S
Texture: F G C B R A

RB SHP: S
Texture: F G C B R A

RIP: C
STG: MF

RIP: S
STG: SHR

WATER

EMS: Temp: 7 Method: T3 Req #: Cond.: 122 Method: S3
pH: 8.1 Method: P2 Turb.: T M L C Method: GE
Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
D95: 5.00 D (cm): 2.00 Morph: RP DISTURBANCE INDICATORS
Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
Islands: N
Coupling: PC Bars: N SIDE DIAG MID SPAN BR
Confinement: OC
FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo			AirPhoto	UTM (Z/E/N)	Method
104G.016	10001	RB				GE	R:	F:	L:	#:	9.382765.6332141	GP3

Comments:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	poor
Rearing Habitat	poor - no pools, primarily fines

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.016 ILP # 1000 Site 100

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 107	F: 3909	STD	D	looking ds to wetland
R: 107	F: 3910	STD	U	
R: 107	F: 3911	STD	U	step pool at us end of reach
WILDLIFE				
Group		Observations		
MAM		bear scat		
COMMENTS				
Section		Comments		
CHANNEL		S6 - small channel with a gradient of 7% leading into a wetland. Gravel and step pool morph then unconfined, fines before wetland.		



Site 100 – Downstream view, looking to wetland



Site 100 – Upstream view



Site 100 – Upstream step pool at end of reach

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.0 ILP Map # 104G.016 ILP # 1000 Site # 101

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-1
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1000 NID Map #: 104G.016 NID #: 10002 Reach #: 2.0 Site #: 101
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382809.6332160 Ref. Name:
 Date: 2007/08/09 Time: 10:50 Agency: C660 Crew: KM SH RD RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.00	1.40	1.20	1.20							1.20	Method I:	53.0	C	53.00
Wetted Width (m):	MS	0.90	1.20	0.90	1.10							1.03	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	N	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

4 71-90%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 7 Method: T3 Req #: Cond.: 114 Method: S3
 pH: 8.1 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 10.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - due to gradient

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 3912	STD	D	
R: 107 F: 3913	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
Reach # 2.0 ILP Map # 104G.016 ILP # 1000 Site 101

COMMENTS	
Section	Comments
CHANNEL	S6 - high gradient stream leading into a wetland



Site 101 – Downstream view



Site 101 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1001 Site # 102

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M3/M4
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1001 NID Map #: 104G.016 NID #: 10003 Reach #: 1.0 Site #: 102
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382787.6352249 Ref. Name:
 Date: 2007/08/09 Time: 10:50 Agency: C660 Crew: KM SH RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.40	1.40	1.70	1.40	0.90	2.40					1.70	Method I:	18.0	22.0	C	20.00
Wetted Width (m):	MS	1.30	0.80	1.40	0.90	0.80	2.20					1.23	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: Avg: 0.15 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	N	N	N	D	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 4 71-90%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: PS

LWD: A DIST: C
 LB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: PS

WATER

EMS: Temp: 6 Method: T3 Req #: Cond.: 111 Method: S3
 pH: 8.1 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 10.0 D (cm): 8.00 Morph: SP
 Pattern: IR DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	10004	FLD				GE	R: 107 F: 3916 L:	#:	9.382787.6352249	GP3

Comments: dry channel on lb

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - too steep
OverWinter Habitat	poor - no pools
Rearing Habitat	poor - no pools

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.016 ILP # 1001 Site 102

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 107	F: 3914	STD	U	
R: 107	F: 3915	STD	D	
R: 107	F: 3916	STD	D	feature dry channel
COMMENTS				
Section		Comments		
CHANNEL		S6		



Site 102 – Upstream view



Site 102 – Downstream view



Site 102 – Downstream dry channel

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1002 Site # 103

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-5
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1002 NID Map #: 104G.016 NID #: 10005 Reach #: 1.0 Site #: 103
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382778.6332474 Ref. Name:
 Date: 2007/08/09 Time: 12:15 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg
Channel Width (m):	MS	1.20	0.90	1.50	1.20	1.40	1.10					1.22
Wetted Width (m):	MS	0.85	0.70	1.20	1.10	1.10	1.10					1.01
Pool Depth (m):	MS	0.16										0.16

	Gadient %	Mtd	Avg
Method I:	45.0	23.0	C 34.00
Method II:			C

Wb Depth: .3 .3 Avg: 0.30 Method: MS Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	N	N	N	D	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V

LWD: F DIST: C
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: M RB RIP: M
 STG: PS STG: PS

WATER

EMS: Req #: Method: T3 Cond.: 259 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: 8.3 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 15.0 D (cm): 10.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	10006	C	120.0	GE	100	GE	R: 107 F: 3924 L:	#:	9.382742.6332475	GP3

Comments: steep cascade down to upper Mess Lake (45%)

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - no pools, fast steep

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.016 ILP # 1002 Site 103

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	107	F: 3924	STD	NS	feature - cascade
R:	107	F: 3925	STD	U	sp morph ds of rc
R:	107	F: 3926	STD	D	
COMMENTS					
Section		Comments			
CHANNEL		S6 - sp channel through av chute. Mod gradient at rc but plunges off mountain ~50m ds of road.			



Site 103 – Feature cascade



Site 103 – Upstream step-pool morphology

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1003 Site # 104

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1003 NID Map #: 104G.016 NID #: 10007 Reach #: 1.0 Site #: 104
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382784.6332511 Ref. Name:
 Date: 2007/08/09 Time: 12:45 Agency: C660 Crew: KM SH RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 3927	STD	S	seepage wetland

COMMENTS

Section	Comments
CHANNEL	NCD
SITE CARD	NCD



Site 104 – South view showing seepage wetland

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1004 Site 105

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1004 NID Map #: 104G.016 NID #: 10008 Reach #: 1.0 Site #: 105
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382790.6332535 Ref. Name:
 Date: 2007/08/09 Time: 12:58 Agency: C660 Crew: SH KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.80	0.30	0.85	0.60	1.20	0.90					0.78	Method I:	5.0	C	5.00
Wetted Width (m):	MS	0.70	0.35	0.70	0.50	1.10	0.70					0.67	Method II:		C	
Pool Depth (m):	MS	0.40	0.26	0.11	0.35	0.25	0.30					0.28				

Wb Depth: .2 .1 .2 Avg: 0.17 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:				S		D	
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

LWD: NS DIST: NS
 LB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Temp: 8 Method: T3 Req #: Cond.: 228 Method: S3
 pH: 7.9 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 0.01 D (cm): 0.01 Morph: RP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none - inadequate substrate
OverWinter Habitat	poor
Rearing Habitat	fair - pools, lots of cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 3928	STD	D	
R: 107 F: 3929	STD	U	



Site 105 – Downstream view



Site 105 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1005 Site # 106

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1005 NID Map #: 104G.016 NID #: 10009 Reach #: 1.0 Site #: 106
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382791.6332798 Ref. Name:
 Date: 2007/08/09 Time: 13:20 Agency: C660 Crew: SH KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 3933	STD	X	showing seepage

COMMENTS

Section	Comments
CHANNEL	NCD - seepage
SITE CARD	NCD



Site 106 – Across view, showing seepage

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1006 Site # 107

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-7
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1006 NID Map #: 104G.016 NID #: 10018 Reach #: 1.0 Site #: 107
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382779.6332895 Ref. Name:
 Date: 2007/08/09 Time: 13:30 Agency: C660 Crew: KM RS SH Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gradient %		Mtd	Avg	
Channel Width (m):	MS	1.40	0.90	0.70	1.00	0.50	0.30					0.80	Method I:	30.0	12.0	C	21.00
Wetted Width (m):	MS	0.80	1.10	0.70	1.20	0.70	0.90					0.90	Method II:			C	
Pool Depth (m):	MS	0.10	0.10	0.11	0.13							0.11					

Wb Depth: .2 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	S	N	S	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: YF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 187 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 20.0 D (cm): 5.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - gravel, but high gradient, fast flow
OverWinter Habitat	none
Rearing Habitat	poor - no pools, shallow fast

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 3934	STD	D	ds of rc, steep (30%) section
R: 107 F: 3935	STD	U	swd at rc

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1006	107

COMMENTS	
Section	Comments
CHANNEL	S6 - 30% gradient ~30m ds of road. Small clear stream through av chute and off.



Site 107 – Downstream view, steep section



Site 107 – Upstream view showing SWD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1007 Site # 108

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-8
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1007 NID Map #: 104G.016 NID #: 10010 Reach #: 1.0 Site #: 108
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382810.6333022 Ref. Name:
 Date: 2007/08/09 Time: 13:55 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg		
Channel Width (m):	MS	0.90	1.50	1.70	1.90	1.80	2.20					1.67		Method I:	40.0	28.0	C	34.00
Wetted Width (m):	MS	1.00	1.60	1.80	2.00	1.60	2.00					1.67		Method II:			C	
Pool Depth (m):	MS											0.00						

Wb Depth: .3 Avg: 0.30 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	S	D	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

3 41-70%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 207 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: 8.3 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: B Subdom: R O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 13.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	10011	F	1.5	MS	0	MS	R: 107 F: 3936 L: #:		9.382810.6333022	GP3

Comments: just ds at rc

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1007	108

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	107	F: 3936	STD	NS	feature - falls
R:	107	F: 3937	STD	NS	feature - falls
COMMENTS					
Section		Comments			
CHANNEL		S6 - steep cascade (40%) at rc. No pools, no habitat.			



Site 108 – Feature falls



Site 108 – Feature falls

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1008 Site # 109

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-9
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1008 NID Map #: 104G.016 NID #: 10012 Reach #: 1.0 Site #: 109
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382843.6333214 Ref. Name:
 Date: 2007/08/09 Time: 12:35 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.33	0.33	0.90	1.30	0.30	1.00					0.69	Method I:	70.0	C	70.00
Wetted Width (m):	MS	0.33	0.48	0.70	1.00	0.90	1.20					0.77	Method II:		C	
Pool Depth (m):	MS	0.18	0.80	0.14	0.10	0.40	0.60					0.37				

Wb Depth: .2 .4 .4 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D			S		S	
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 LB SHP: U RB SHP: U
 Texture: F G C B R A
 RIP: M RB RIP: M
 STG: MF STG: MF

LWD: N DIST: NA
 LB SHP: U
 Texture: F G C B R A
 RIP: M
 STG: MF

WATER

EMS: Temp: 6 Method: T3 Req #: Cond.: 245 Method: S3
 pH: 8.3 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 3.00 D (cm): 3.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	10013	C	200.0	GE	100	GE	R: 107 F: 3940 L: #:		9.382822.6333232	GP3

Comments: cascades all the way to the lake from 20m ds of road center marker.

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.016 ILP # 1008 Site 109

PHOTOS				
Photo		Foc Lg	Dir	Comments
R:	107	F: 3938	STD	U
R:	107	F: 3939	STD	D
R:	107	F: 3940	STD	U
R:	107	F: 3948	STD	U
fish barrier, cascade				
showing unconfined area				
COMMENTS				
Section		Comments		
CHANNEL		S6 - high gradient small stream cascading down the mountain primarily undercut with extensive over veg and often covering stream. Almost flowing underground at parts.		



Site 109 – Upstream view



Site 109 – Downstream view



Site 109 – Upstream, cascade fish barrier



Site 109 – Upstream, showing unconfined area

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1009 Site # 110

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-10
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1009 NID Map #: 104G.016 NID #: 10014 Reach #: 1.0 Site #: 110
 Field UTM (Z.E.N): .. Method: Site Lg: 150 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382883.6333497 Ref. Name:
 Date: 2007/08/09 Time: 15:30 Agency: C660 Crew: KM RS SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.50	0.90	1.60	0.60	1.40						1.00		Method I: 80.0	4.0	C	30.33
Wetted Width (m):	MS	0.70	1.20	1.80	1.10	1.50						1.26		Method II: 7.0		C	
Pool Depth (m):	MS	0.14										0.14					

Wb Depth: .2 .2 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 LB SHP: U RB SHP: U
 Texture: F G C B R A
 RIP: W RB RIP: C
 STG: NA STG: MF

WATER

EMS: Temp: 4 Method: T3 Req #: Cond.: 212 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 18.0 D (cm): 5.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC
 Confinement: OC
 FSZ: Bars: N SIDE DIAG MID SPAN BR

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	10015	C	90.0	GE		GE	R: F: L: #:		9.382883.6333497	GP3

Comments: 10m ds of rc, major cascade to lake

HABITAT QUALITY

Name	Comments
Spawning Habitat	good - lots of nice gravel but no access
OverWinter Habitat	poor - no deep pools
Rearing Habitat	good - nice pool-riffle habitat

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.016 ILP # 1009 Site 110

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	107	F: 3949	STD	U	good habitat at rc
R:	107	F: 3950	STD	D	
R:	107	F: 3951	STD	D	cascade to lake
COMMENTS					
Section		Comments			
CHANNEL		S6 - nice stream with low gradient at rc. Drops off ~10m ds of rc to upper mess lake. Stream parallels road for ~100m us of rc. Recommend moving crossing us 100m to where it comes off of hillslope to avoid possible encroachment of road into stream.			



Site 110 – Upstream view



Site 110 – Downstream view



Site 110 – Downstream cascade to lake

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1010 Site # 111

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-11
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1010 NID Map #: 104G.016 NID #: 10016 Reach #: 1.0 Site #: 111
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382929.6333585 Ref. Name:
 Date: 2007/08/09 Time: 16:05 Agency: C660 Crew: KM RS SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.50	0.60	0.30	0.80							0.55	Method I:	75.0	78.0	C	76.50
Wetted Width (m):	MS	0.20	0.15	0.10	0.20							0.16	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .1 Avg: 0.15 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	N	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 4 71-90%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: D RB RIP: D
 STG: SHR STG: SHR

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 15.0 D (cm): 4.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 3957	STD	D	
R: 107 F: 3958	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1010	111

COMMENTS	
Section	Comments
CHANNEL	S6 - very steep drainage through av chute. No fish habitat and not enough water.



Site 111 – Downstream view



Site 111 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1011 Site # 112

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-12
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1011 NID Map #: 104G.016 NID #: 10017 Reach #: 1.0 Site #: 112
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: FT
 GIS UTM (Z.E.N): 9.382936.6333596 Ref. Name:
 Date: 2007/08/09 Time: 16:20 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.50	0.20	0.60	0.40							0.43	Method I:	78.0	75.0	C	76.50
Wetted Width (m):	MS	0.20	0.10	0.30	0.20							0.20	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .1 .1 Avg: 0.10 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	N	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S

Texture: F G C B R A

RIP: D

STG: SHR

RB SHP: S

Texture: F G C B R A

RIP: D

STG: SHR

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 15.0 D (cm): 5.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 3959	STD	D	

COMMENTS

Section | Comments

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1011	112

CHANNEL	S6 - no fish habitat, very steep.
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Site 112 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1012 Site # 113

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1012 NID Map #: 104G.016 NID #: 10019 Reach #: 1.0 Site #: 113
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382931.6222844 Ref. Name:
 Date: 2007/08/10 Time: 09:40 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 108 F: 3961	STD	U	flowing water out of alluvial fan

COMMENTS

Section	Comments
CHANNEL	NCD - alluvial fan - water emerges and flows ~5m before seeping back into ground.
SITE CARD	NCD



Site 113 – Upstream, showing alluvial fan

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1013 Site # 114

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-13
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1013 NID Map #: 104G.016 NID #: 10020 Reach #: 1.0 Site #: 114
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382931.6333893 Ref. Name:
 Date: 2007/08/10 Time: 09:50 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS											0.00	Method I:	80.0	60.0	C	70.00
Wetted Width (m):	MS	0.80	1.20	0.90	0.90	0.80	0.80					0.90	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: Avg: 0.00 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	D	N	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V

LWD: N DIST: NA
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: NS RB RIP: NS
 STG: NA RB STG: NA

WATER

EMS: Req #: Method: T3 Cond.: 222 Method: S3
 Temp: 6 Method: P2 Turb.: T M L C Method: GE
 pH: 8.3 Method: GE
 Flood Signs: none

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 25.0 D (cm): 8.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: NA
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 108 F: 3962	STD	D	cascade (80%) to main channel
R: 108 F: 3963	STD	U	looking towards rc



Site 114 – Downstream 80% cascade to main channel



Site 114 – Upstream view, towards proposed road

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1014 Site # 115

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-14
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1014 NID Map #: 104G.016 NID #: 10021 Reach #: 1.0 Site #: 115
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383000.6334318 Ref. Name:
 Date: 2007/08/10 Time: 12:00 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.50	1.70	2.20	1.20	0.90	1.90					1.57	Method I:	43.0	C	43.00
Wetted Width (m):	MS	1.50	1.50	2.00	1.20	0.80	1.80					1.47	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .8 .1 Avg: 0.45 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	D	S
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Temp: 4 Method: T3 Req #: Cond.: 480 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 30.0 D (cm): 4.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 108 F: 3968	STD	D	
R: 108 F: 3969	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 1014 Site 115

COMMENTS	
Section	Comments
CHANNEL	S6 - very steep, unconfined drainage through av chute. Very shallow, not really any defined banks. Marginal habitat.



Site 115 – Downstream view



Site 115 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1015 Site # 116

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-15
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1015 NID Map #: 104G.016 NID #: 10022 Reach #: 1.0 Site #: 116
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383178.6335103 Ref. Name:
 Date: 2007/08/10 Time: 14:45 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.40	2.30	1.80	1.70	2.50	0.90					1.77		Method I: 58.0	58.0	C	58.00
Wetted Width (m):	MS	1.00	2.00	0.80	0.70	1.20	0.40					1.02		Method II:		C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .2 Avg: 0.20 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	N	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

4 71-90%

INSTREAM VEG: N A M V

LWD: A DIST: E

LB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 3 Method: T3 Req #: Cond.: 324 Method: S3
 pH: 8.3 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 40.0 D (cm): 5.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 108 F: 3971	STD	U	
R: 108 F: 3972	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1015	116

COMMENTS	
Section	Comments
CHANNEL	S6 - small steep forested stream shallow, low banks. Unconfined



Site 116 – Upstream view



Site 116 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1016 Site # 117

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-16
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1016 NID Map #: 104G.016 NID #: 10023 Reach #: 1.0 Site #: 117
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383168.6335243 Ref. Name:
 Date: 2007/08/11 Time: 08:35 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

COMMENTS

Section	Comments
CHANNEL	NCD - section at rc (~20m) is channelized but us and ds of rc turns into seepage. Water flows over vegetation and swd and underground in sections. No fish value.
SITE CARD	NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1017 Site # 118

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-17
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1017 NID Map #: 104G.016 NID #: 10024 Reach #: 1.0 Site #: 118
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383147.6335405 Ref. Name:
 Date: 2007/08/10 Time: 09:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.00	1.90	1.20	1.50	1.20	1.00					1.47		Method I: 47.0	63.0	C	55.00
Wetted Width (m):	MS	2.00	1.90	1.10	1.00	1.20	1.00					1.37		Method II:		C	
Pool Depth (m):	MS											0.00					

Wb Depth: .1 .2 Avg: 0.15 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	S	N	N	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: A DIST: E

LB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Method: S3
 Temp: 4 Method: T3 Cond.: 136 Method: GE
 pH: 8.2 Method: P2 Turb.: T M L C
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 25.0 D (cm): 10.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

COMMENTS

Section	Comments
CHANNEL	S6 - small stream with good flow. Very steep and shallow. Marginal habitat, no fish value.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1018 Site # 119

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-18 Tish Cr.
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1018 NID Map #: 104G.016 NID #: 10025 Reach #: 1.0 Site #: 119
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383117.6335507 Ref. Name:
 Date: 2007/08/11 Time: 10:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	3.20	2.60	3.10	3.60	4.10	3.40					3.33		Method I: 37.0	40.0	C	38.50
Wetted Width (m):	MS	0.00	0.00	1.40	1.10	0.70	1.00					0.70		Method II:		C	
Pool Depth (m):	MS	0.15										0.15					

Wb Depth: .7 .6 Avg: 0.65 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	S	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%

INSTREAM VEG: N A M V

LWD: A DIST: E

LB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 4 Method: T3 Req #: Cond.: 194 Method: S3
 pH: 8.4 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: B Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 40.0 D (cm): 18.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: I
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - at higher flows some pools may be inhabitable, but very steep and unconnected

COMMENTS

Section	Comments
CHANNEL	S5 - large channel with very low flow, dewater ~20m ds of rc. Lots of bedload movement possible and lots of LWD. Marginal habitat.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1019 Site # 120

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-19
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1019 NID Map #: 104G.016 NID #: 10026 Reach #: 1.0 Site #: 120
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383139.6335753 Ref. Name:
 Date: 2007/08/11 Time: 11:00 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.00	1.40	1.40	1.20	1.00	0.60					1.10	Method I:	34.0	41.0	C	37.50
Wetted Width (m):	MS	0.60	0.70	0.80	0.90	0.80	0.90					0.78	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: Avg: 0.35 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	S	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: V Texture: F G C B R A
 RIP: C STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 309 Method: S3
 Temp: 3 Method: P2 Turb.: T M L C Method: GE
 pH: 8.1 Method: GE
 Flood Signs: deposited sand on rb

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 10.0 D (cm): 5.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC
 Confinement: OC
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - shallow, no deep pools

COMMENTS

Section	Comments
CHANNEL	S6 - small stream arises from seepage ~5m us of rc, channelizes at rc and becomes stream ds. High gradient, shallow. Marginal habitat.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1020 Site # 121

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-20
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1020 NID Map #: 104G.016 NID #: 10027 Reach #: 1.0 Site #: 121
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383206.6335929 Ref. Name:
 Date: 2007/08/11 Time: 12:10 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.10	0.50	1.20	1.40	0.40						0.92	Method I:	39.0	C	39.00
Wetted Width (m):	MS	0.60	0.60	0.60		1.00	0.30					0.62	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .1 .2 .1 Avg: 0.13 Method: MS Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	S	N	T	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 RB SHP: V Texture: F G C B R A
 RIP: C STG: MF

LWD: A DIST: E
 LB SHP: V Texture: F G C B R A
 RIP: C STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 344 Method: S3
 Temp: 5 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 14.0 D (cm): 4.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: F
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

COMMENTS

Section	Comments
CHANNEL	S6 - very small stream, borderline NCD. Channels at rc. N channel is NCD, s channel is more "streamy". Marginal Habitat.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1021 Site # 122

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1021 NID Map #: 104G.016 NID #: 10028 Reach #: 1.0 Site #: 122
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383263.6336024 Ref. Name:
 Date: 2007/08/11 Time: 12:50 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			DISTURBANCE INDICATORS									
Islands:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Coupling:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confinement:			Bars: N <input type="checkbox"/> SIDE <input type="checkbox"/> DIAG <input type="checkbox"/> MID <input type="checkbox"/> SPAN <input type="checkbox"/> BR <input type="checkbox"/>									
FSZ: <input type="checkbox"/>												

COMMENTS

Section	Comments
CHANNEL	NCD - seepage
SITE CARD	NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1022 Site # 123

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M22
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1022 NID Map #: 104G.016 NID #: 10029 Reach #: 1.0 Site #: 123
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383244.6335974 Ref. Name:
 Date: 2007/08/11 Time: 12:55 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.17	0.27	0.15	0.35	0.40	0.15					0.25	Method I:	51.0	C	51.00
Wetted Width (m):	MS	0.20	0.30	0.20	0.38	0.40	0.20					0.28	Method II:		C	
Pool Depth (m):	MS	0.10										0.10				

Wb Depth: .2 .1 .2 Avg: 0.17 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	N	N	D	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

3 41-70%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 347 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 5.00 D (cm): 3.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

COMMENTS

Section	Comments
CHANNEL	S6 - very small steep stream. Narrow well defined channel through moss.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1023 Site # 124

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1023 NID Map #: 104G.016 NID #: 10030 Reach #: 1.0 Site #: 124
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383258.6336031 Ref. Name:
 Date: 2007/08/11 Time: 13:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

COMMENTS

Section	Comments
CHANNEL	NCD
SITE CARD	NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1024 Site # 125

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M23
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1024 NID Map #: 104G.016 NID #: 10031 Reach #: 1.0 Site #: 125
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383258.6336056 Ref. Name:
 Date: 2007/08/11 Time: 13:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:

LB SHP:

Texture: F G C B R A

RIP:

STG:

RB SHP:

Texture: F G C B R A

RIP:

STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

COMMENTS

Section	Comments
CHANNEL	NCD - channelized at rc, but seepage us and ds.
SITE CARD	NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1025 Site # 126

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M24
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1025 NID Map #: 104G.016 NID #: 10032 Reach #: 1.0 Site #: 126
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383326.6336132 Ref. Name:
 Date: 2007/08/11 Time: 13:40 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	3.80	2.70	3.60	3.20	3.00	4.10					3.40	Method I:	62.0	57.0	C	59.50
Wetted Width (m):	MS	2.60	2.50	2.90	2.90	2.80	3.80					2.92	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .4 .3 Avg: 0.35 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	S	T	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: A DIST: E

LB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 257 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 20.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

COMMENTS

Section	Comments
CHANNEL	S5 - moderate sized steep cascading stream, no pools. Marginal habitat.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1026 Site # 127

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M25
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1026 NID Map #: 104G.016 NID #: 10033 Reach #: 1.0 Site #: 127
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383332.6336139 Ref. Name:
 Date: 2007/08/11 Time: 14:05 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.10	1.80	1.60	1.40	1.30	1.80					1.50	Method I:	64.0	C	64.00
Wetted Width (m):	MS	1.00	1.20	1.10	1.00	1.20	1.60					1.18	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .3 .2 Avg: 0.25 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	S	N	N	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 3 Method: T3 Req #: Cond.: 363 Method: S3
 pH: 8.4 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 22.0 D (cm): 8.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST Islands: N C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: DC Confinement: UN FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

COMMENTS

Section	Comments
CHANNEL	S6 - small steep cascading stream. Marginal habitat.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1027 Site # 128

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M-26
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1027 NID Map #: 104G.016 NID #: 10034 Reach #: 1.0 Site #: 128
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383831.6337147 Ref. Name:
 Date: 2007/08/11 Time: 15:10 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.10	1.50	2.20	2.50	2.00						2.06	Method I:	39.0	35.0	C	37.00
Wetted Width (m):	MS	1.40	1.00	2.00	2.40	1.80						1.72	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .8 .2 .4 Avg: 0.47 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	S	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: C
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: S3
 Temp: 3 Method: T3 Cond.: 424 Method: GE
 pH: 8.1 Method: P2 Turb.: T M L C
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 18.0 D (cm): 10.0 Morph: CP Morph: CP
 Pattern: ST DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: CO
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

COMMENTS

Section	Comments
CHANNEL	S6 - small stream in avalanche/debris chute. Almost completely covered in LWD from debris avalanche (old). Recommend bridge to avoid cv washouts due to debris. Marginal habitat.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1030 Site # 131

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M33
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1030 NID Map #: 104G.016 NID #: 10040 Reach #: 1.0 Site #: 131
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384771.6339694 Ref. Name:
 Date: 2007/08/12 Time: 08:40 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.50	1.20	1.40	2.00	2.50						1.72		Method I: 39.0	28.0	C	33.50
Wetted Width (m):	MS	0.80	1.30	2.00	1.60	1.70						1.48		Method II:		C	
Pool Depth (m):	MS	0.20	0.10									0.15					

Wb Depth: Avg: 0.55 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	T	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 3 Method: T3 Req #: Cond.: 187 Method: S3
 pH: 8.4 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 10.0 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	10042	RB				GE	R: 100 F: 3977 L: #:		9.384771.6339694	GP3
Comments: outlet of creek into mess. Flat low gradient, good rearing										
104G.016	10041	C	10.0	GE	15	GE	R: 100 F: 3975 L: #:		9.384765.6339686	GP3
Comments: 39%										

HABITAT QUALITY

Name	Comments

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1030 Site 131

HABITAT QUALITY					
Name		Comments			
Spawning Habitat		poor - few patches of gravel but no connectivity			
OverWinter Habitat		none			
Rearing Habitat		fair - decent pools, cover, sp morph			
PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	100	F: 3675	STD	D	39% cascade ds of rc (~10m)
R:	100	F: 3976	STD	D	cascade
R:	100	F: 3977	STD	U	off channel hab of mess cr at outlet of M33
R:	100	F: 3978	STD	U	29%sp morph at rc.
COMMENTS					
Section		Comments			
CHANNEL		S6 - road through this section is only 20m upslope from Mess cr. And associated side channels. Recommend moving road upslope 20m to avoid HADD in Mess cr during falling and blasting. Small sp stream with good hab. Potential . 39% grade at outlet to Mess			



Site 131 – Downstream 39% cascade



Site 131 – Downstream cascade



Site 131 – Upstream off channel habitat



Site 131 – Upstream 29% step-pool morphology

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1031 Site # 132

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M32
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1031 NID Map #: 104G.016 NID #: 10043 Reach #: 1.0 Site #: 132
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384704.6338998 Ref. Name:
 Date: 2007/08/12 Time: 10:25 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	3.00	2.00	2.60								2.53	Method I:	45.0	C	45.00
Wetted Width (m):	MS	0.70	0.50	0.90								0.70	Method II:		C	
Pool Depth (m):	MS	0.12										0.12				

Wb Depth: .7 .7 .5 Avg: 0.63 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	S	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 5 >90%
 INSTREAM VEG: N A M V
 LB SHP: V RB SHP: V
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Temp: 4 Method: T3 Req #: Cond.: 114 Method: S3
 pH: 8.3 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: B Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 20.0 D (cm): 12.0 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST Islands: N C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: DC Confinement: CO FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

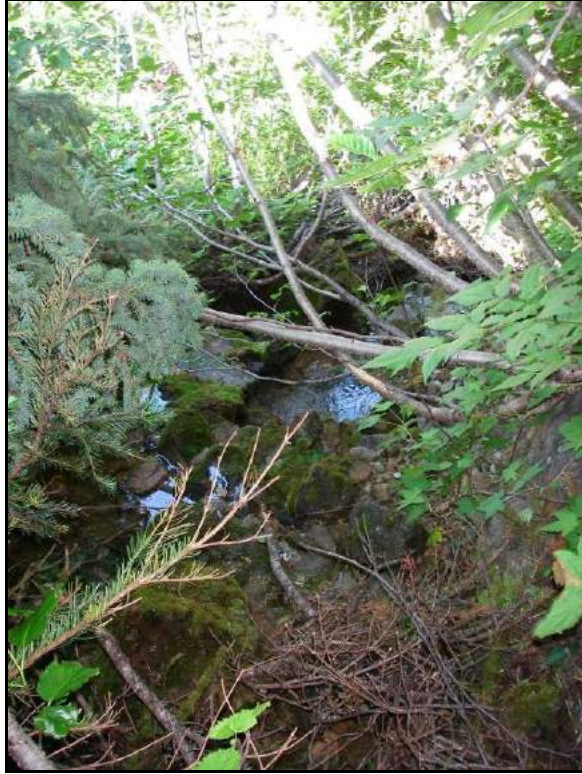
Photo	Foc Lg	Dir	Comments
R: 100 F: 3983	STD	D	
R: 100 F: 3984	STD	U	bouldery cascade at rc

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1031	132

COMMENTS	
Section	Comments
CHANNEL	S6 - very bouldery channel through av chute. Steep but low flow at this time. Marginal habitat. ~40m upslope from Mess Cr.



Site 132 – Downstream view



Site 132 – Upstream boulder cascade

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1032 Site # 133

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M31
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1032 NID Map #: 104G.016 NID #: 10044 Reach #: 1.0 Site #: 133
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384615.6338697 Ref. Name:
 Date: 2007/08/12 Time: 11:30 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3985	STD	U	seepage beside rd

COMMENTS

Section	Comments
CHANNEL	NCD
SITE CARD	NCD



Site 133 – Upstream, seepage beside road

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1034 Site # 135

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1034 NID Map #: 104G.016 NID #: 10046 Reach #: 1.0 Site #: 135
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385048.6341401 Ref. Name:
 Date: 2007/08/12 Time: 14:15 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4005	STD	D	barely a seepage

COMMENTS

Section	Comments
CHANNEL	NCD - seepage at edge of av chute. Alder and dc.
SITE CARD	NCD



Site 135 – Downstream, barely a seepage

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1035 Site # 136

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M40
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1035 NID Map #: 104G.026 NID #: 10047 Reach #: 1.0 Site #: 136
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385075.6341641 Ref. Name:
 Date: 2007/08/12 Time: 14:50 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.65	1.20	0.60	1.00							0.86	Method I:	30.0	32.0	C	34.00
Wetted Width (m):	MS	0.55	0.50	0.30	0.30							0.41	Method II:	40.0		C	
Pool Depth (m):	MS	0.13										0.13					

Wb Depth: .2 .2 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	S	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S

Texture: F G C B R A

RIP: M

STG: PS

RB SHP: S

Texture: F G C B R A

RIP: M

STG: PS

WATER

EMS: Temp: 6 Method: T3 Req #: Cond.: 226 Method: S3
 pH: 8.5 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 25.0 D (cm): 4.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4006	STD	D	
R: 100 F: 4007	STD	U	ryan for scale

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1035	136

COMMENTS	
Section	Comments
CHANNEL	S6 - very small stream through dc alder spruce. Low flow. Marginal habitat.



Site 136 – Downstream view



Site 136 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1036 Site # 137

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M41
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1036 NID Map #: 104G.016 NID #: 10048 Reach #: 1.0 Site #: 137
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385054.6341702 Ref. Name:
 Date: 2007/08/12 Time: 15:05 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Islands:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coupling:												
Confinement:												
FSZ: <input type="checkbox"/>			Bars: N <input type="checkbox"/>	SIDE <input type="checkbox"/>	DIAG <input type="checkbox"/>	MID <input type="checkbox"/>	SPAN <input type="checkbox"/>	BR <input type="checkbox"/>				

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4008	STD	U	overland flow
R: 100 F: 4009	STD	U	overland flow.

COMMENTS

Section	Comments
CHANNEL	NCD - somewhat channelized at rc but overland flow us and ds and seepage.
SITE CARD	NCD



Site 137 – Upstream view, overland flow



Site 137 – Upstream view, overland flow

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1037 Site # 138

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1037 NID Map #: 104G.016 NID #: 10049 Reach #: 1.0 Site #: 138
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385045.6341734 Ref. Name:
 Date: 2007/08/12 Time: 15:20 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4010	STD	U	seepage at rc

COMMENTS

Section	Comments
SITE CARD	NCD
CHANNEL	NCD - small channelized a bit at rc. Lots of underground flow.



Site 138 – Upstream view, seepage

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1038 Site # 139

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M42
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1038 NID Map #: 104G.016 NID #: 10050 Reach #: 1.0 Site #: 139
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385161.6342171 Ref. Name:
 Date: 2007/08/12 Time: 15:50 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	5.50	4.30	4.10	3.00	8.40	4.30					4.93		Method I: 33.0	15.0	C	24.00
Wetted Width (m):	MS	2.30	1.50	2.60	1.90	1.50	1.80					1.93		Method II:		C	
Pool Depth (m):	MS	0.13	0.16	0.18	0.14	0.13						0.15					

Wb Depth: 1.2 .6 .7 Avg: 0.83 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	S	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: V

Texture: F G C B R A

RIP: M

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: M

STG: MF

WATER

EMS: Req #: 248
 Temp: 7 Method: T3 Cond.: 248 Method: S3
 pH: 8.4 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: debris from avalanch Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 65.0 D (cm): 28.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST Islands: N C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: DC Confinement: FC FSZ:
 Bars: N SIDE DIAG MID SPAN BR

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	10051	C	4.0	GE	8	GE	R: 100 F: 4021 L: #:		9.385170.6342159	GP3

Comments: 33% cascade ~10m us of rc

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some gravel, good flow.
OverWinter Habitat	none
Rearing Habitat	fair - some pools, good flow; low cover in lower gradient area. Higher us.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1038 Site 139

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	100	F: 4011	STD	NS	8 angles for TC. Starting us and working clockwise
R:	100	F: 4012	STD	NS	TC
R:	100	F: 4013	STD	NS	TC
R:	100	F: 4014	STD	NS	TC
R:	100	F: 4015	STD	NS	TC
R:	100	F: 4016	STD	NS	TC
R:	100	F: 4017	STD	NS	TC
R:	100	F: 4018	STD	NS	TC
R:	100	F: 4019	STD	U	boulders and logs on lb from debris flow.
R:	100	F: 4020	STD	U	boulders and debris from debris flow on rb
R:	100	F: 4021	STD	U	33% cascade us of rc
COMMENTS					
Section		Comments			
CHANNEL		S3 - 33% ~10m us of rc, 15% at rc. Evidence of old debris flow/rock avalanche on both banks. Could move rc 30m us and avoid fish bearing area. 2 seepages ~5 and 10m from rb of stream, all could be avoided by moving us. Important habitat.			



Site 139 – Upstream debris



Site 139 – Upstream boulders and debris



Site 139 – Upstream 33% cascade

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1039 Site # 140

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1039 NID Map #: 104G.016 NID #: 19999 Reach #: 1.0 Site #: 140
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385182.6342174 Ref. Name:
 Date: 2007/08/12 Time: 08:45 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4023	STD	D	a bit of channelized seepage 10m N of M42

COMMENTS

Section	Comments
CHANNEL	NCD - seepage (probably from last stream) shannelizes a bit at road crossing, then seeps out again ds. Could avoid by shifting previous rc upslope.
SITE CARD	NCD



Site 140 – Downstream channelized seepage

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1040 Site # 141

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M43
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1040 NID Map #: 104G.016 NID #: 10052 Reach #: 1.0 Site #: 141
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385198.6342173 Ref. Name:
 Date: 2007/08/13 Time: 09:20 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.70	1.10	1.40	1.10	0.70	1.60					1.10		Method I: 21.0	22.0	C	21.50
Wetted Width (m):	MS	0.60	0.80	0.80	0.80	0.50	1.40					0.82		Method II:		C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .2 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 4 71-90%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 357 Method: S3
 pH: 8.3 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 8.00 D (cm): 3.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	10053	GE				GE	R: 101 F: 4024 L: #:		9.385198.6342113	GP3

Comments: source spring

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none - no deep pools, probably freezes
Rearing Habitat	fair - some decent pools, lots of cover

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.016 ILP # 1040 Site 141

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	101	F: 4024	STD	U	feature - source spring
R:	101	F: 4025	STD	U	feature - source spring
R:	101	F: 4026	STD	D	undefined area ds of rc
R:	101	F: 4027	STD	U	overland flow ds of rc
R:	101	F: 4028	STD	U	good channel bit near rc.
COMMENTS					
Section		Comments			
CHANNEL		S4 Default - borderline stream - mostly scoured but a couple of areas of overland flow, undefined channel. Good flow. Stream arised from spring at bottom of av. Chute. Can't really move rc up but try to make it more parallel to stream direction.			



Site 141 – Upstream source spring



Site 141 – Downstream undefined area



Site 141 – Upstream, overland flow



Site 141 – Upstream, good channel

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1041 Site 142

HABITAT QUALITY						
Name		Comments				
Spawning Habitat		poor - there's water but shallow. Too steep.				
OverWinter Habitat		none				
Rearing Habitat		fair - decent pools, good cover and good flow				
PHOTOS						
Photo		Foc Lg	Dir	Comments		
R:	101	F: 4029	STD	D	near rc	
R:	101	F: 4030	STD	U	near rc	
R:	101	F: 4031	STD	U	feature - spring source	
R:	101	F: 4032	STD	U	feature - spring source	
R:	101	F: 4035	STD	U	note road ribbon 5m to right of stream.	
COMMENTS						
Section		Comments				
CHANNEL		S4 Default - small stream arising from av chute springs and stream. Sp morph but decent pools. Low gradient and connected to Mess cr. Road runs parallel for ~20m on LB - alternate alignment so it crosses perpendicular to stream higher up.				



Site 142 – Downstream view



Site 142 – Upstream view



Site 142 – Spring source



Site 142 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1042 Site # 143

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M45
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1042 NID Map #: 104G.016 NID #: 10057 Reach #: 1.0 Site #: 143
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385229.6342175 Ref. Name:
 Date: 2007/08/13 Time: 10:00 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.10	0.70	0.90	1.00	1.50	2.10					1.22	Method I:	24.0	19.0	C	21.50
Wetted Width (m):	MS	0.60	0.30	0.40	0.50	0.90	1.30					0.67	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .4 .2 Avg: 0.27 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V

LWD: N DIST: NA
 LB SHP: V RB SHP: U
 Texture: F G C B R A
 RIP: C RB SHP: U
 STG: MF STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 435 Method: S3
 Temp: 5 Method: P2 Turb.: T M L C Method: GE
 pH: 8.3 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 6.00 D (cm): 3.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none - no connectivity small

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4033	STD	U	spring source
R: 101 F: 4034	STD	U	stream section

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # ILP Map # ILP # Site
1.0 104G.016 1042 143

COMMENTS	
Section	Comments
CHANNEL	S6 - if rc moves us on left it will cross this stream at a better spot, arises from a spring in us av chute. Marginal habitat.



Site 143 – Upstream spring source



Site 143 – Upstream view



Site 144 – Upstream view



Site 144 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1044 Site # 145

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1044 NID Map #: 104G.016 NID #: 10059 Reach #: 1.0 Site #: 145
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385249.6342220 Ref. Name:
 Date: 2007/08/13 Time: 11:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4041	STD	D	

COMMENTS

Section	Comments
CHANNEL	NCD - seepage channelizes a bit at rc. Overland flow and organic substrate dominate.
SITE CARD	NCD



Site 145 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1045 Site # 146

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M46
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1045 NID Map #: 104G.016 NID #: 10060 Reach #: 1.0 Site #: 146
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385280.6342239 Ref. Name:
 Date: 2007/08/13 Time: 11:45 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	MS	2.70	3.10	1.30	3.40	3.00						2.70	Method I:	18.0	24.0	C	21.00
Wetted Width (m):	MS	2.30	1.30	1.00	1.40	1.40						1.48	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .3 .2 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V

LWD: F DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

RB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 463 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 12.0 D (cm): 4.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST Islands: O C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: DC Confinement: OC FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - no pools, shallow

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4042	STD	U	
R: 101 F: 4043	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 1045 Site 146

COMMENTS	
Section	Comments
CHANNEL	S6 - wide poorly defined unconfined stream with multiple channels through moss and shrubs. No barriers ds to mess cr. Soft banks, no good for arch cv.



Site 146 – Upstream view



Site 146 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1046 Site 147

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M47
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1046 NID Map #: 104G.016 NID #: 10061 Reach #: 1.0 Site #: 147
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385300.6342282 Ref. Name:
 Date: 2007/08/13 Time: 12:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.60	0.90	0.70	0.80	1.10						1.02		Method I: 28.0	35.0	C	31.50
Wetted Width (m):	MS	1.15	0.50	0.80	0.70	0.60						0.75		Method II:		C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .2 .1 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 5 >90%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 217 Method: S3
 pH: 8.6 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 4.00 D (cm): 4.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

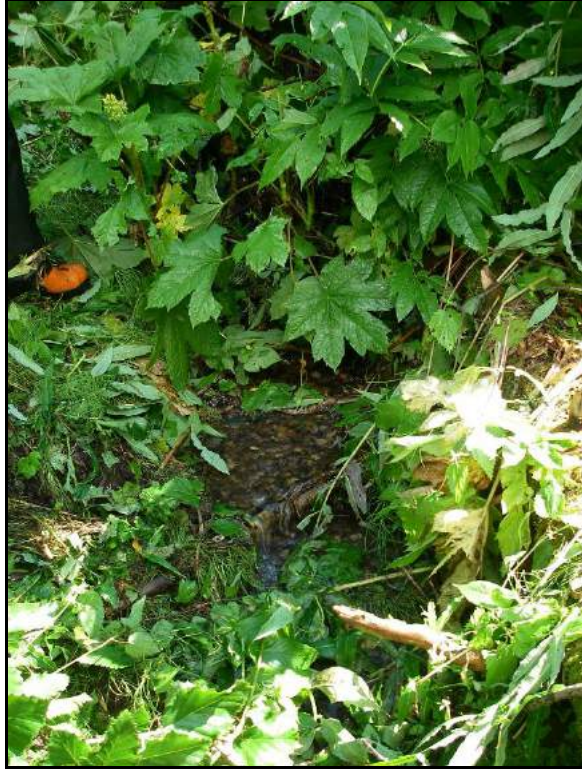
PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4046	STD	U	
R: 101 F: 4047	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 1046 Site 147

COMMENTS	
Section	Comments
CHANNEL	S6 - very small stream through av. Chute. Marginal habitat.



Site 147 – Upstream view



Site 147 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1048 Site 149

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M49
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1048 NID Map #: 104G.016 NID #: 10013 Reach #: 1.0 Site #: 149
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385327.6342484 Ref. Name:
 Date: 2007/08/13 Time: 13:25 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: Morph: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4050	STD	D	channelized a bit, followed by overland bit at rc.

COMMENTS

Section	Comments
CHANNEL	NCD - pockets of channelization interspersed with subsurface flow, overland flow and seepage. Not continuous.
SITE CARD	NCD



Site 149 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1049 Site # 150

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M50
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1049 NID Map #: 104G.016 NID #: 10064 Reach #: 1.0 Site #: 150
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385365.6342590 Ref. Name:
 Date: 2007/08/13 Time: 13:40 Agency: C660 Crew: KM RD RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	7.00	1.30	2.30	2.00	1.20						2.76	Method I:	47.0	48.0	C	47.50
Wetted Width (m):	MS	0.40	0.80	2.00	0.80	0.60						0.92	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .6 Avg: 0.00 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	T	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: M

STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 264 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: 8.6 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 30.0 D (cm): 8.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO
 Confinement: CO
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4051	STD	U	at rc
R: 101 F: 4052	STD	D	ds of rc to mess cr.



Site 150 – Upstream view



Site 150 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1050 Site # 151

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M51
 Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1050 NID Map #: 104G.016 NID #: 10065 Reach #: 1.0 Site #: 151
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385429.6342870 Ref. Name:
 Date: 2007/08/13 Time: 14:20 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.70	2.00	2.20	2.20	2.40	2.60					2.35		Method I: 23.0	21.0	C	22.00
Wetted Width (m):	MS	1.60	0.80	1.10	1.50	1.60	0.80					1.23		Method II:		C	
Pool Depth (m):	MS	0.14	0.12	0.14								0.13					

Wb Depth: .3 .4 .4 Avg: 0.37 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	T	S	N	N	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Temp: 7 Method: T3 Req #: Cond.: 210 Method: S3
 pH: 8.5 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: rafted debris Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 30.0 D (cm): 11.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - shallow few pools fast flow

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4054	STD	U	
R: 101 F: 4055	STD	D	
R: 101 F: 4056	STD	U	sp morph. Through bouldery avalanche debris.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 1050 Site 151

COMMENTS	
Section	Comments
CHANNEL	S6 - evidence of avalanche debris - lots. Small stream through avalanche chute. Marginal habitat.



Site 151 – Upstream view



Site 151 – Upstream step-pool morphology



Site 151 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1051 Site # 152

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 1051 NID Map #: 104G.016 NID #: 10066 Reach #: 1.0 Site #: 152
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385412.6343145 Ref. Name:
 Date: 2007/08/13 Time: 15:10 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4058	STD	D	overland and seepage at rc.

COMMENTS

Section	Comments
CHANNEL	NCD - some surface water and flow, but no channel.
SITE CARD	NCD



Site 152 – Downstream seepage

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1052	153

COMMENTS	
Section	Comments
CHANNEL	S3 Default - ds of rc nice stream with sp morph - lots of cover and good pools. Us of rc evidence of debris flow, extensive scour and downrutting. Still good pools, but less cover 24% slope. Important habitat in places. Return to EF.



Site 153 – Upstream scoured valley



Site 153 – Across view, deposited debris on left bank

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1056 Site # 157

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M53
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1056 NID Map #: 104G.016 NID #: 10068 Reach #: 1.0 Site #: 157
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385432.6343329 Ref. Name:
 Date: 2007/08/13 Time: 16:00 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.50	0.90	1.40	0.90	0.60	0.60					0.82	Method I:	16.0	21.0	C	18.50
Wetted Width (m):	MS	0.60	1.10	0.70	0.90	0.70	0.60					0.77	Method II:			C	
Pool Depth (m):	MS	0.20										0.20					

Wb Depth: .3 .2 Avg: 0.25 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	N	D	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 163 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 12.0 D (cm): 4.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some decent gravel but shallow water
OverWinter Habitat	none - no pools
Rearing Habitat	poor - shallow, few pools.

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4069	STD	D	
R: 101 F: 4070	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	1056	157

COMMENTS	
Section	Comments
CHANNEL	S4 Defult - 3 streams join at rc - this is the southernmost. Small gravel stream, good flow but shallow. Few pools. Connected to mess Cr. With out barriers. Marginal habitat.



Site 157 – Downstream view



Site 157 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1057 Site 158

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M53
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1057 NID Map #: 104G.016 NID #: 10069 Reach #: 1.0 Site #: 158
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385441.6343349 Ref. Name:
 Date: 2007/08/13 Time: 16:20 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadien %		Mtd	Avg	
Channel Width (m):	MS	2.00	1.60	0.90	0.40	0.70						1.12	Method I:	16.0	14.0	C	15.00
Wetted Width (m):	MS	1.80	1.30	1.00	0.40	0.50						1.00	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: Avg: 0.20 Method: MS Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	S	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 173 Method: S3
 Temp: 5 Method: P2 Turb.: T M L C Method: GE
 pH: 7.1 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 7.00 D (cm): 3.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - shallow, organics substrate

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4071	STD	U	us of rc
R: 101 F: 4072	STD	D	us of rc



Site 158 – Upstream view



Site 158 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 1058 Site # 159

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M53
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 1058 NID Map #: 104G.016 NID #: 10070 Reach #: 1.0 Site #: 159
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385431.6343349 Ref. Name:
 Date: 2007/08/13 Time: 16:30 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.30	2.20	2.00	1.50	1.70	1.40	2.50				1.94	Method I:	16.0	12.0	C	11.00
Wetted Width (m):	MS	1.80	1.90	1.30	1.10	0.60	1.70	2.00				1.49	Method II:	5.0		C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .4 .5 Avg: 0.40 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	T	S	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V

LWD: F DIST: E
 LB SHP: U RB SHP: U
 Texture: F G C B R A
 RIP: C RB SHP: U
 STG: MF STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 378 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: 8.4 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 22.0 D (cm): 10.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - us of rc some gravel, but fast and shallow good ds of rc.
OverWinter Habitat	none
Rearing Habitat	good - ds of crossing, good. Us poor.

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4073	STD	D	cascade us of rc
R: 101 F: 4074	STD	U	us of rc
R: 101 F: 4075	STD	U	at rc showing 3 streams coming together

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.016 ILP # 1058 Site 159

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	101	F: 4076	STD	D	ds from rc to Mess Cr.
R:	101	F: 4086	STD	U	critical sp habitat at outlet to Mess Cr.
R:	101	F: 4087	STD	D	critical sp habitat at outlet to Mess Cr.
COMMENTS					
Section		Comments			
CHANNEL		S4 Default - Low gradient, connected to Mess Cr. 3rd stream at rc M53. main waterbody - good flow but fast, steeper and few pools. Excellent spawning habitat at outlet to Mess Cr. Recommend bridge.			



Site 159 – Downstream cascade



Site 159 – Downstream view



Site 159 – Upstream viewSite



159 – Upstream showing 3 streams joining

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.026	1059	160

CHANNEL	NCD - w/-5m of channel @ rc - underground flow everywhere else.
SITE CARD	NCD



Site 160 – Upstream NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.026 ILP # 1060 Site 161

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	102	F: 4089	STD	U	pool and cascade
R:	102	F: 4090	STD	U	look us to rc
R:	102	F: 4091	STD	NS	falls
COMMENTS					
Section		Comments			
CHANNEL		S6 - swift shallow stream, cascades w/some steps. Possible barrier (~1m falls) located ~30m ds of rc. Ds pool is 30cm deep.			



Site 161 – Upstream pool and cascade



Site 161 - Upstream



Site 161 – Falls

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1061 Site # 162

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M55
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1061 NID Map #: 104G.026 NID #: 10076 Reach #: 1.0 Site #: 162
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385282.6343877 Ref. Name:
 Date: 2007/08/14 Time: 10:40 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.026	10077	FSZ			80	GE	R: 102 F: 4094 L: #:		9.385266.6343883	GP3

Comments: at ncd outlet - road adjacent

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4092	STD	D	scour ds of rc
R: 102 F: 4093	STD	U	scour and overland flow us of rc
R: 102 F: 4094	STD	D	FSZ at outlet

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.026	1061	162

COMMENTS	
Section	Comments
CHANNEL	NCD - small, partially scoured NCD, scoured down to Mess Cr but overland flow us of rc. Very narrow and shallow. Flows into FSZ @ Mess Creek. Take care to keep construction well back from here. Move alignment us slightly.
SITE CARD	NCD



Site 162 – Downstream scour



Site 162 – Upstream scour and overland flow



Site 162 – FSZ at outlet

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1062 Site # 163

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1062 NID Map #: 104G.026 NID #: 10078 Reach #: 1.0 Site #: 163
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385153.6344047 Ref. Name:
 Date: 2007/08/14 Time: 11:15 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4095	STD	NS	NCD covered by OV

COMMENTS

Section	Comments
CHANNEL	NCD - partially channelized NCD. Flows over organic fines and debris @ rc. Very low flow.
SITE CARD	NCD



Site 163 – NCD covered by overhanging vegetation

FDIS Site Card

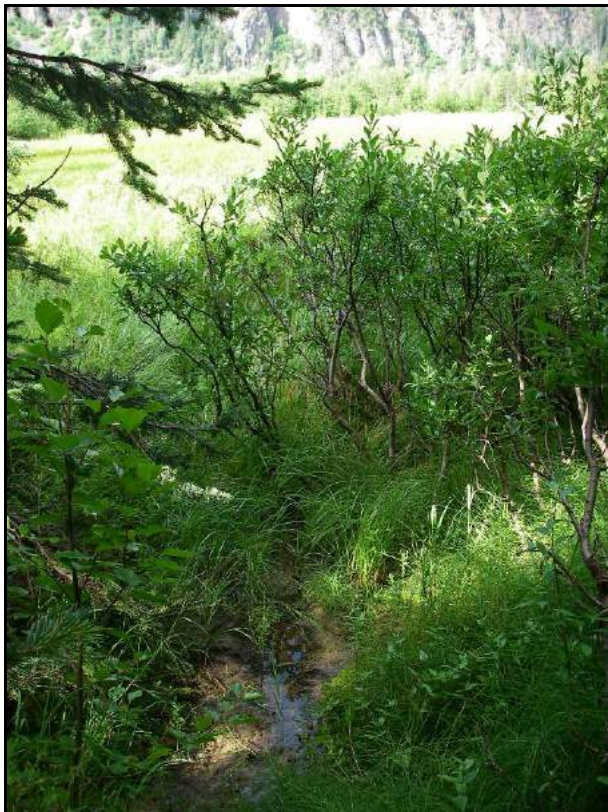
Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.026	1063	164

Section	Comments
CHANNEL	NCD - channelized in places but lots of overland and subsurface flow. Outflow into wetland ~15m ds of rc and 100m of approach on low chain side is within 15m of wl. Recommend moving upslope to avoid sidecast into wl and FSZ
SITE CARD	NCD



Site 164 – Downstream dry patch



Site 164 – FSZ

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1064 Site # 165

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M57
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.026 ILP #: 1064 NID Map #: 104G.026 NID #: 10081 Reach #: 1.0 Site #: 165
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385118.6344301 Ref. Name:
 Date: 2007/08/14 Time: 11:55 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	3.10	3.60	2.50	1.50	0.70	0.50					1.98	Method I:	22.0	23.0	C	22.50
Wetted Width (m):	MS	2.70	2.60	2.00	1.40	0.80	0.60					1.68	Method II:			C	
Pool Depth (m):	MS	0.20	0.40									0.30					

Wb Depth: .5 .3 .5 Avg: 0.43 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	T	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 7 Method: T3 Req #: Cond.: 387 Method: S3
 pH: 8.7 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 40.0 D (cm): 13.0 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.026	10082	RB		GE		GE	R: F: L: #:		9.385118.6344301	GP3

Comments: steep stream enters wl.

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - at rc, good in WL
OverWinter Habitat	poor - no deep pools, fast flow, turbulent
Rearing Habitat	poor - at rc, good in WL

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.026 ILP # 1064 Site 165

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	102	F: 4098	STD	D	good spawning habitat in WL ds of rc
COMMENTS					
Section		Comments			
CHANNEL		S4 - steep stream w/marginal habitat at rc, flows into WL with great spawning and rearing habitat. Recommend bridge to avoid introducing sed to critical spawning habitat.			



Site 165 – Downstream good spawning area

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1065 Site # 166

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M58
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1065 NID Map #: 104G.026 NID #: 10084 Reach #: 1.0 Site #: 166
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385134.6344353 Ref. Name:
 Date: 2007/08/14 Time: 13:35 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.50	1.60	1.20	2.00	1.50	1.50					1.55	Method I:	38.0	33.0	C	35.50
Wetted Width (m):	MS	0.70	0.40	0.80	0.60	0.40	0.40					0.55	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .2 .4 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	N	S	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

4 71-90%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S

Texture: F G C B R A

RIP: D

STG: PS

RB SHP: S

Texture: F G C B R A

RIP: D

STG: PS

WATER

EMS: Temp: 8 Method: T3 Req #: Cond.: 256 Method: S3
 pH: 8.5 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 4.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: CO
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4100	STD	U	
R: 102 F: 4101	STD	D	



Site 166 – Upstream view



Site 166 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1066 Site # 167

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M59
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1066 NID Map #: 104G.026 NID #: 10085 Reach #: 1.0 Site #: 167
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385126.6344347 Ref. Name:
 Date: 2007/08/14 Time: 13:55 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.40	1.30	1.50	1.30	1.30	1.40					1.37	Method I:	36.0	C	36.00
Wetted Width (m):	MS	1.00	1.00	1.00	1.20	1.20	1.00					1.07	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .1 .3 .3 Avg: 0.23 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 4 71-90%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: M RIP: C
 STG: PS STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 250 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 12.0 D (cm): 3.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4102	STD	U	at rc
R: 102 F: 4103	STD	U	swd ds of rc



Site 167 – Upstream view



Site 167 – Upstream SWD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1067 Site # 168

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M60
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1067 NID Map #: 104G.026 NID #: 10086 Reach #: 1.0 Site #: 168
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384891.6344828 Ref. Name:
 Date: 2007/08/14 Time: 14:45 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.60	1.20	2.30	3.30							2.10	Method I:	31.0	27.0	C	29.00
Wetted Width (m):	MS	1.10	1.10	1.60	1.80							1.40	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .4 .4 Avg: 0.37 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	S	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 8 Method: T3 Req #: Cond.: 317 Method: S3
 pH: 8.6 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: B Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 32.0 D (cm): 5.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4107	STD	U	
R: 102 F: 4108	STD	D	



Site 168 – Upstream view



Site 168 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1068 Site # 169

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1068 NID Map #: 104G.026 NID #: 10087 Reach #: 1.0 Site #: 169
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384815.6345077 Ref. Name:
 Date: 2007/08/14 Time: 15:35 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4109	STD	U	seepage overland flow.

COMMENTS

Section	Comments
CHANNEL	NCD - seepage w/some flow @ rc. No fish habitat.
SITE CARD	NCD



Site 169 – Upstream view, seepage, overland flow

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1069 Site # 170

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M61
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1069 NID Map #: 104G.026 NID #: 10088 Reach #: 1.0 Site #: 170
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384799.6345108 Ref. Name:
 Date: 2007/08/14 Time: 15:50 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

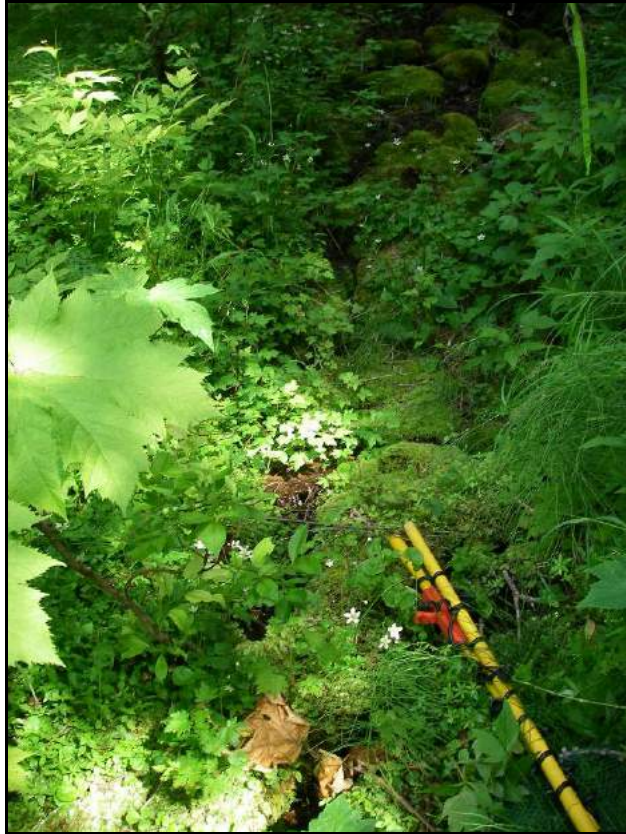
Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4110	STD	U	subsurface and overland flow.

COMMENTS

Section	Comments
CHANNEL	NCD - subsurface and some channelized flow through moss. No fish habitat.
SITE CARD	NCD



Site 170 – Upstream, subsurface overland flow

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1070 Site # 171

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M62
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1070 NID Map #: 104G.026 NID #: 10089 Reach #: 1.0 Site #: 171
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384772.6345142 Ref. Name:
 Date: 2007/08/14 Time: 16:00 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.60	0.50	0.40	0.20	0.40	1.50					0.60	Method I:	35.0	C	35.00
Wetted Width (m):	MS	0.40	0.40	0.30	0.30	0.30	0.60					0.38	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .2 .2 .2 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 289 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs: overland flow

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 25.0 D (cm): 3.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4111	STD	U	ds of rc

COMMENTS

Section | Comments

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.026 ILP # 1070 Site 171

-----	-----
CHANNEL	S6 - tiny little stream, sp through moss. High gradient, shallow, no fish habitat



Site 171 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1071 Site # 172

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1071 NID Map #: 104G.026 NID #: 10090 Reach #: 1.0 Site #: 172
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384774.6345318 Ref. Name:
 Date: 2007/08/15 Time: 08:30 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Islands:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coupling:												
Confinement:												
FSZ: <input type="checkbox"/>			Bars: N <input type="checkbox"/>	SIDE <input type="checkbox"/>	DIAG <input type="checkbox"/>	MID <input type="checkbox"/>	SPAN <input type="checkbox"/>	BR <input type="checkbox"/>				

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4116	STD	D	seepage draw no channel

COMMENTS

Section	Comments
CHANNEL	NCD - dry channel through dc and alder. No fish habitat.
SITE CARD	NCD



Site 172 – Downstream seepage draw

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1072 Site # 173

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M64 itsh creek
 Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.026 ILP #: 1072 NID Map #: 104G.026 NID #: 10091 Reach #: 1.0 Site #: 173
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384668.6345904 Ref. Name:
 Date: 2007/08/15 Time: 08:55 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	4.70	3.10	3.50	4.50	6.00	3.20					4.17	Method I:	26.0	20.0	C	27.00
Wetted Width (m):	MS	3.70	2.40	2.10	2.10	3.80	2.00					2.68	Method II:	35.0		C	
Pool Depth (m):	MS	0.20	0.12	0.18								0.17					

Wb Depth: 1.0 .6 .6 Avg: 0.73 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	S	S	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: A DIST: E

LB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Temp: 5 Method: T3 Cond.: 232 Method: S3
 pH: 8.5 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: rafted debris Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 15.0 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - some gravel confined to pool outlets, fast flow, steep cascades.
OverWinter Habitat	none
Rearing Habitat	poor - some pools but steep cascades between, fast flow.

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4117	STD	U	steep cascade ~40m ds of rc
R: 100 F: 4118	STD	D	20% cascade to Mess Cr
R: 100 F: 4119	STD	NS	8 angles for TC starting w/look us and working clockwise.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.026 ILP # 1072 Site 173

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	100	F: 4120	STD	NS	2nd shot
R:	100	F: 4121	STD	NS	3rd shot
R:	100	F: 4122	STD	NS	4th shot
R:	100	F: 4123	STD	NS	5th shot
R:	100	F: 4124	STD	NS	6th shot
R:	100	F: 4125	STD	NS	7th shot
R:	100	F: 4126	STD	X	erosion and slope failure on rb at rc
R:	100	F: 4127	STD	U	slope failure on LB just us of rc
COMMENTS					
Section		Comments			
CHANNEL		S5 default - slopes on both banks failing. Stream at current rc is probably s5 but moving ds, might make it S3. couple of good cascade barriers ds of rc. Steps up to .8m.			



Site 173 – Upstream steep cascade



Site 173 – Upstream slope failure



Site 173 – Downstream 20% cascade

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1073 Site # 174

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1073 NID Map #: 104G.026 NID #: 10092 Reach #: 1.0 Site #: 174
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384659.6346055 Ref. Name:
 Date: 2007/08/15 Time: 10:00 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4129	STD	D	NCD in dc - overland flow

COMMENTS

Section	Comments
CHANNEL	NCD - overland and seepage flow at rc. No fish habitat.
SITE CARD	NCD



Site 174 – Downstream NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1074 Site # 175

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1074 NID Map #: 104G.026 NID #: 10093 Reach #: 1.0 Site #: 175
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384667.6346279 Ref. Name:
 Date: 2007/08/15 Time: 10:20 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4130	STD	D	seepage at rc

COMMENTS

Section	Comments
CHANNEL	NCD - seepage through dc.
SITE CARD	NCD



Site 175 – Downstream seepage

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1075 Site # 176

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1075 NID Map #: 104G.026 NID #: 10094 Reach #: 1.0 Site #: 176
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384679.6346322 Ref. Name:
 Date: 2007/08/15 Time: 10:25 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %	Mtd	Avg	
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4131	STD	U	dry NCD at rc

COMMENTS

Section	Comments
CHANNEL	NCD - dry partially channelized NCD, no fish habitat.
SITE CARD	NCD



Site 176 – Upstream dry NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1076 Site # 177

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M65
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.026 ILP #: 1076 NID Map #: 104G.026 NID #: 10095 Reach #: 1.0 Site #: 177
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384709.6346429 Ref. Name:
 Date: 2007/08/15 Time: 12:00 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.80	2.00	0.80	1.30	0.70	0.90					1.08	Method I:	40.0	23.0	C	31.50
Wetted Width (m):	MS	0.80	0.40	0.40	0.50	0.30	0.50					0.48	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .4 .4 .2 Avg: 0.33 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	S	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

3 41-70%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S

Texture: F G C B R A

RIP: M

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: M

STG: MF

WATER

EMS: Temp: 7 Method: T3 Req #: Cond.: 322 Method: S3
 pH: 8.4 Method: P2 Method: GE
 Flood Signs: Method: GE Turb.: T M L C

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 16.0 D (cm): 4.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI Islands: N Coupling: PC Confinement: UN FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4132	STD	U	~20m ds of rc
R: 100 F: 4133	STD	D	



Site 177 – Upstream view



Site 177 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1077 Site # 178

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M66
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1077 NID Map #: 104G.026 NID #: 10096 Reach #: 1.0 Site #: 178
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384728.6346681 Ref. Name:
 Date: 2007/08/15 Time: 11:30 Agency: C660 Crew: KM RS RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg		
Channel Width (m):	MS	1.10	1.00	1.40	1.20	0.30	0.20					0.87	Method I:	34.0	30.0	C	32.00
Wetted Width (m):	MS	0.50	0.20	0.40	0.30	0.20	0.10					0.28	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .4 .3 .1 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	N	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 235 Method: S3
 pH: 8.1 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 20.0 D (cm): 5.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: CO
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 4134	STD	D	look towards rc
R: 100 F: 4135	STD	U	@ source 10m us of rc



Site 178 – Downstream view



Site 178 – Upstream view at source spring

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1078 Site 179

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 100	F: 4139	STD	X	deposited alluvial sand (this year) ds of rc
R: 100	F: 4140	STD	NS	8 angles for tc starting w/look ds and working clockwise. 4140-4147
COMMENTS				
Section		Comments		
CHANNEL		S2 - extensive evidence of debris flows/bedload movt. Alluvial deposits start 40m back from lb of stream. Old channels evident. Spreads out over alluvial fan as it approached mess cr. No barriers. Better bridge location 384904 6347060, more confined.		



Site 179 – Downstream LWD



Site 179 – Downstream abandoned channel



Site 179 – Deposited cobble and boulders



Site 179 – Deposited alluvial sand

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.026 ILP # 1079 Site 180

PHOTOS					
Photo			Foc Lg	Dir	Comments
R:	100	F: 4154	STD	NS	TC
R:	100	F: 4155	STD	NS	TC
R:	100	F: 4156	STD	NS	TC
R:	100	F: 4157	STD	NS	TC
R:	100	F: 4158	STD	NS	TC
R:	100	F: 4159	STD	NS	TC
R:	100	F: 4160	STD	D	fresh erosion on lb ds of rc
R:	100	F: 4161	STD	X	lb at crossing note alluvial fan and erosion
COMMENTS					
Section			Comments		
CHANNEL			S2 - very dynamic channel w/ wide floodplain (~80m wide w/ sparse alder & avens). Lots of evidence of bedload movement and channel migration. Banks are eroded. Bridge is @ narrowest spot b/w treed areas, but there is a wide alluvial floodplain just US.		



Site 180 – Downstream fresh erosion



Site 180 – Downstream fresh erosion



Site 180 – Left bank at crossing, note alluvial fan and erosion

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1080 Site # 181

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M69
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.026 ILP #: 1080 NID Map #: 104G.026 NID #: 10099 Reach #: 1.0 Site #: 181
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384899.6348000 Ref. Name:
 Date: 2007/08/16 Time: 08:45 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Islands:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coupling:												
Confinement:												
FSZ: <input type="checkbox"/>			Bars: N <input type="checkbox"/>	SIDE <input type="checkbox"/>	DIAG <input type="checkbox"/>	MID <input type="checkbox"/>	SPAN <input type="checkbox"/>	BR <input type="checkbox"/>				

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4063	STD	U	looking towards rc
R: 101 F: 4064	STD	U	close up of NCD

COMMENTS

Section	Comments
CHANNEL	NCD - pours out of sprign at rc, partially channelized but mostly undefined overland flow. Turns into a stream ~30m ds of rc.
SITE CARD	NCD



Site 181 – Upstream view



Site 181 – Close up of NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1081 Site # 182

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1081 NID Map #: 104G.026 NID #: 10100 Reach #: 1.0 Site #: 182
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384850.6348334 Ref. Name:
 Date: 2007/08/16 Time: 09:20 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4065	STD	D	dry ncd at rd

COMMENTS

Section	Comments
CHANNEL	NCD - dry with some areas of channelization at rc, mostly overland and subsurface flow.
SITE CARD	NCD



Site 182 – Downstream, dry NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1082 Site # 183

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1082 NID Map #: 104G.026 NID #: 10102 Reach #: 1.0 Site #: 183
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384642.6348682 Ref. Name:
 Date: 2007/08/16 Time: 09:55 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4067	STD	D	dry seepage

COMMENTS

Section	Comments
CHANNEL	NCD - dry seepage no fish habitat.
SITE CARD	NCD



Site 183 – Downstream seepage

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.026	1083	184

COMMENTS	
Section	Comments
CHANNEL	FSZ - off channel habitat of Mess Cr within 5m of proposed alignment - shift road upslope at least 20m to avoid sidecast debris. ~70m long x 20m wide, inlet from Mess Cr at N end. Ribbon says ILP 1084
SITE CARD	FSZ not all measurements taken



Site 184 – Across view



Site 184 – Downstream view



Site 184 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.026	1084	185

COMMENTS	
Section	Comments
CHANNEL	FSZ - road passes within 5m of another FSZ - this one a wetland. May be accessible to fish during floods. Recommend moving road ~20m us to avoid FSZ
SITE CARD	FSZ



Site 185 – Upstream view



Site 185 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1085 Site # 186

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: _____ Local Name: M71
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1085 NID Map #: 104G.026 NID #: 10105 Reach #: 1.0 Site #: 186
 Field UTM (Z.E.N): .. Method: _____ Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384525.6350519 Ref. Name: _____
 Date: 2007/08/16 Time: 13:20 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.45	0.70	0.60	0.90	0.60						0.65		Method I: 17.0	19.0	C	18.00
Wetted Width (m):	MS											0.00		Method II:		C	
Pool Depth (m):	MS											0.00					

Wb Depth: Avg: 0.40 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: NS DIST: NS
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: _____ Req #: _____
 Temp: _____ Method: T3 Cond.: _____ Method: S3
 pH: _____ Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 16.0 D (cm): 8.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4172	STD	D	at rc
R: 101 F: 4173	STD	U	at rc



Site 186 – Downstream view



Site 186 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1086 Site # 187

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M72 Mikael Cr.
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.026 ILP #: 1086 NID Map #: 104G.026 NID #: 10106 Reach #: 1.0 Site #: 187
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384673.6351276 Ref. Name:
 Date: 2007/08/16 Time: 14:10 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	MS	5.40	5.20	5.30	10.50	5.80	8.70					6.82	Method I:	3.0	5.0	C	4.00
Wetted Width (m):	MS	3.90	3.30	3.50	3.20	4.20	5.00					3.85	Method II:			C	
Pool Depth (m):	MS	0.20	0.50	0.30	0.50	0.30	0.60					0.40					

Wb Depth: .6 .8 Avg: 0.70 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	S	T	S	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V

LWD: F DIST: E
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: M RB RIP: M
 STG: MF STG: MF

WATER

EMS: Temp: 12 Method: T3 Req #: Cond.: 70 Method: S3
 pH: 8.3 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 22.0 D (cm): 13.00 Morph: RP
 Pattern: SI DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	good - good gravels at pool outlets. Good flow
OverWinter Habitat	good - some deep pools suitable for overwintering
Rearing Habitat	good - some excellent deep pools with LWD cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4175	STD	U	step pools ds of rc (~60m)
R: 101 F: 4176	STD	U	bank erosion on rb ~30m us of rc
R: 101 F: 4177	STD	U	old log jam on lb ~40m us of rc forced avulsion

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.026 ILP # 1086 Site 187

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	101	F: 4178	STD	NS	TC photos looking us and working clockwise
R:	101	F: 4179	STD	NS	TC
R:	101	F: 4180	STD	NS	TC
R:	101	F: 4181	STD	NS	TC
R:	101	F: 4182	STD	NS	TC
R:	101	F: 4183	STD	NS	TC
R:	101	F: 4184	STD	NS	TC
R:	101	F: 4185	STD	NS	TC
R:	101	F: 4186	STD	U	deep pools and stabilizing cottonwoods just us of rc
COMMENTS					
Section		Comments			
CHANNEL		S2 default - lovely clear stream low gradient with some deep pools, good cover. Us of rc there are several eroding banks and an old log jam that have redirected the stream a bit. At rc there are 2 cottonwoods on us side of rc whose roots stabilize a pool,			



Site 187 – Upstream step-pools



Site 187 – Upstream bank erosion



Site 187 – Upstream log jam on left bank



Site 187 – Upstream deep pools and cottonwoods

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1087 Site # 188

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1087 NID Map #: 104G.026 NID #: 10107 Reach #: 1.0 Site #: 188
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384812.6351764 Ref. Name:
 Date: 2007/08/16 Time: 15:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			DISTURBANCE INDICATORS									
Islands:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Coupling:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confinement:			Bars: N <input type="checkbox"/> SIDE <input type="checkbox"/> DIAG <input type="checkbox"/> MID <input type="checkbox"/> SPAN <input type="checkbox"/> BR <input type="checkbox"/>									
FSZ: <input type="checkbox"/>												

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4187	STD	D	rc

COMMENTS

Section	Comments
CHANNEL	NCD - dry with pockets of scour, mostly overland flow. No fish habitat.
SITE CARD	NCD



Site 188 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1088 Site # 189

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M73
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1088 NID Map #: 104G.026 NID #: 10108 Reach #: 1.0 Site #: 189
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384814.6351793 Ref. Name:
 Date: 2007/08/16 Time: 15:35 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.20	2.70	1.40	1.50	1.20						1.60	Method I:	33.0	33.0	C	33.00
Wetted Width (m):	MS											0.00	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .2 Avg: 0.25 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	N	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 5 >90%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: M STG: YF
 RIP: M STG: MF

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs: none

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 20.0 D (cm): 15.0 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4188	STD	U	us of rc
R: 101 F: 4189	STD	D	measuring at rc



Site 189 – Upstream view



Site 189 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1089 Site # 190

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M74
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1089 NID Map #: 104G.026 NID #: 10109 Reach #: 1.0 Site #: 190
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384901.6352271 Ref. Name:
 Date: 2007/08/17 Time: 08:40 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.70	0.80	0.40	1.80	1.20						0.98	Method I:	18.0	25.0	C	21.50
Wetted Width (m):	MS	0.50	0.70	0.30	1.10	0.50						0.62	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: Avg: 0.25 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: YF

WATER

EMS: Temp: 10 Method: T3 Req #: Cond.: 386 Method: S3
 pH: 8.6 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 18.0 D (cm): 4.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none - shallow, steep fine substrates and low flow

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4190	STD	U	barely a stream ds of rc
R: 102 F: 4191	STD	U	stream disperses overland us of rc

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.026 ILP # 1089 Site 190

COMMENTS	
Section	Comments
CHANNEL	S6 - small stream flowing through dc, alder and balsam. Most of water diverted overland just us of rc by LWD. Rechannelizes just ds of rc and flows into lake. Good flow us of rc but nearly a seepage ds. Multiple seepage like channels ds of rc several barr



Site 190 – Upstream view, barely a stream



Site 190 – Upstream dispersal overland

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1090 Site # 191

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M75
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1090 NID Map #: 104G.026 NID #: 10110 Reach #: 1.0 Site #: 191
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384887.6322387 Ref. Name:
 Date: 2007/08/17 Time: 09:10 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.30	0.40	0.60	0.40	0.80	0.90					0.73	Method I:	22.0	17.0	C	19.50
Wetted Width (m):	MS	0.70	0.35	0.70	0.30	0.60	0.60					0.54	Method II:			C	
Pool Depth (m):	MS	0.13										0.13					

Wb Depth: .2 .2 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	S	N	T	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: C RB RIP: C
 STG: MF STG: MF

LWD: N DIST: NA
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 382 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs: none

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 12.0 D (cm): 2.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4192	STD	D	ds of rc
R: 102 F: 4193	STD	U	at rc

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.026 ILP # 1090 Site 191

COMMENTS	
Section	Comments
CHANNEL	S6 - small stream flowing through cobbles and boulders, spruce, willow. Very low shallow flow, no pools or deep water anywhere. No fish habitat.



Site 191 – Downstream view



Site 191 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1092	193

COMMENTS	
Section	Comments
CHANNEL	S4 default - dry but decent sized stream channel - evidence of flooding this year - deposited sand up to 5m from rb, evidence of overland flow. Dd drilling hose just ds of road. Recommend EF at higher water. Low gradient flows into fb lake without barrier



Site 193 – Downstream view



Site 193 – Upstream view, dry pool

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1093 Site 194

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M78
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1093 NID Map #: 104G.026 NID #: 10113 Reach #: 1.0 Site #: 194
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385110.6353293 Ref. Name:
 Date: 2007/08/17 Time: 11:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.00	1.60	2.00	1.00	2.40	1.80					1.63	Method I:	13.0	14.0	C	13.50
Wetted Width (m):	MS	0.50	1.30	0.80	0.80	1.40	1.80					1.10	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .3 .4 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	T	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: MF

LWD: F DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: MF

WATER

EMS: Temp: 10 Method: T3 Req #: Cond.: 228 Method: S3
 pH: 8.5 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: flood ch on rb Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 16.0 D (cm): 11.00 Morph: CP
 Pattern: SI DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some gravel present, but shallow water and possibly too steep
OverWinter Habitat	none
Rearing Habitat	poor - no deep pools, spread out in places

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4198	STD	D	
R: 102 F: 4199	STD	U	



Site 194 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1094 Site 195

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M79
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1094 NID Map #: 104G.036 NID #: 10114 Reach #: 1.0 Site #: 195
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385132.6353520 Ref. Name:
 Date: 2007/08/17 Time: 13:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg		
Channel Width (m):	MS	2.70	3.00	1.70	2.70	2.70	2.50					2.55		Method I:	14.0	14.0	C	14.00
Wetted Width (m):	MS	1.40	1.00	1.10	2.00	2.00	1.50					1.50		Method II:			C	
Pool Depth (m):	MS	0.16										0.16						

Wb Depth: .3 .3 .4 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	T	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 10 pH: 8.3 Flood Signs: Method: T3 Method: P2 Method: GE Req #: Cond.: 170 Turb.: T M L C Method: S3 Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C Morph: SP
 D95: 50.0 D (cm): 12.00
 Pattern: SI Islands: N Coupling: DC Confinement: UN FSZ:
 DISTURBANCE INDICATORS
 O1 B1 B2 B3 D1 D2 D3

 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - nice gravels in places, but steep with frequent steps and cascades
OverWinter Habitat	poor - no deep pools
Rearing Habitat	fair - nice stream with good flow and cover, but few pools

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4200	STD	U	
R: 102 F: 4201	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.036 ILP # 1094 Site 195

COMMENTS	
Section	Comments
CHANNEL	S3 default - nice sp stream with lots of cover, but few pools. Moderate gradient, important habitat return to EF



Site 195 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1097 Site # 198

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1097 NID Map #: 104G.036 NID #: 10117 Reach #: 1.0 Site #: 198
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385286.6354139 Ref. Name:
 Date: 2007/08/17 Time: 14:40 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4204	STD	U	some scour at rc

COMMENTS

Section	Comments
CHANNEL	NCD - dry with evidence of overland flow.
SITE CARD	NCD



Site 198 – Upstream, showing some scour

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1098 Site # 199

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1098 NID Map #: 104G.036 NID #: 10118 Reach #: 1.0 Site #: 199
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385297.6354321 Ref. Name:
 Date: 2007/08/17 Time: 14:55 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			DISTURBANCE INDICATORS									
Islands:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Coupling:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confinement:			Bars: N <input type="checkbox"/> SIDE <input type="checkbox"/> DIAG <input type="checkbox"/> MID <input type="checkbox"/> SPAN <input type="checkbox"/> BR <input type="checkbox"/>									
FSZ: <input type="checkbox"/>												

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4205	STD	U	dry NCD

COMMENTS

Section	Comments
CHANNEL	NCD - dry - somewhat channelized us of rc but mostly overland flow.
SITE CARD	NCD



Site 199 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1099 Site # 200

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M81 Alicia Cr
 Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1099 NID Map #: 104G.036 NID #: 10119 Reach #: 1.0 Site #: 200
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385415.6354469 Ref. Name:
 Date: 2007/08/17 Time: 15:15 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	7.90	9.30	5.40	5.60	6.30	4.30					6.47		Method I: 8.0	10.0	C	9.00
Wetted Width (m):	MS	5.40	6.80	3.20	3.10	2.50	3.90					4.15		Method II:		C	
Pool Depth (m):	MS	0.40	0.40	0.20	0.24	0.38	0.43					0.34					

Wb Depth: .6 .4 .5 Avg: 0.50 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	N	T	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 11 Method: T3 Req #: Cond.: 64 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 90.0 D (cm): 20.0 Morph: SP
 Pattern: SI DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	good - some good substrate and pool outlets
OverWinter Habitat	fair - may be some habitat in deep pools
Rearing Habitat	good - lots of deep pools and cover in moderate sp morph

PHOTOS

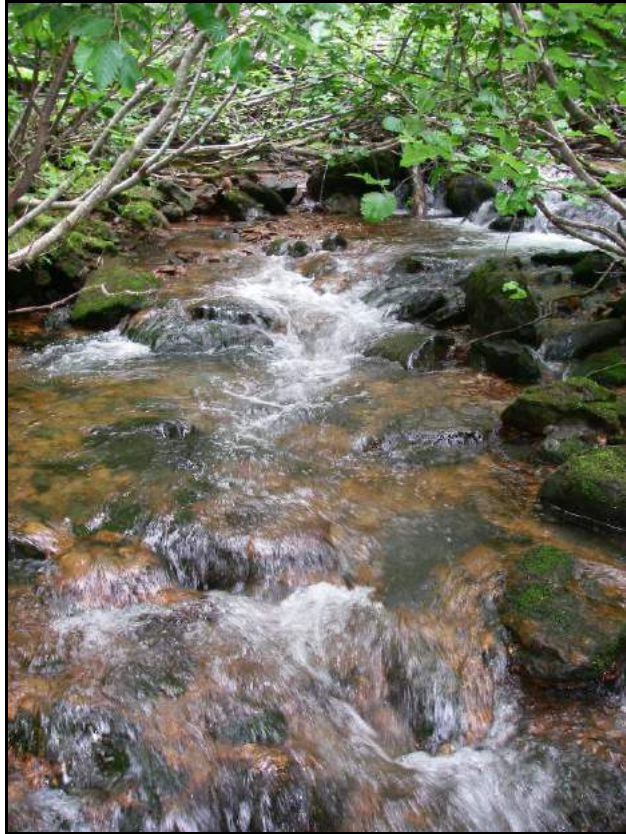
Photo	Foc Lg	Dir	Comments
R: 102 F: 4210	STD	U	bouldery sp morph ds of rc
R: 102 F: 4211	STD	U	cliffs and sp morph us of rc
R: 102 F: 4212	STD	NS	TC photos starting ds and working clockwise

FDIS Site Card

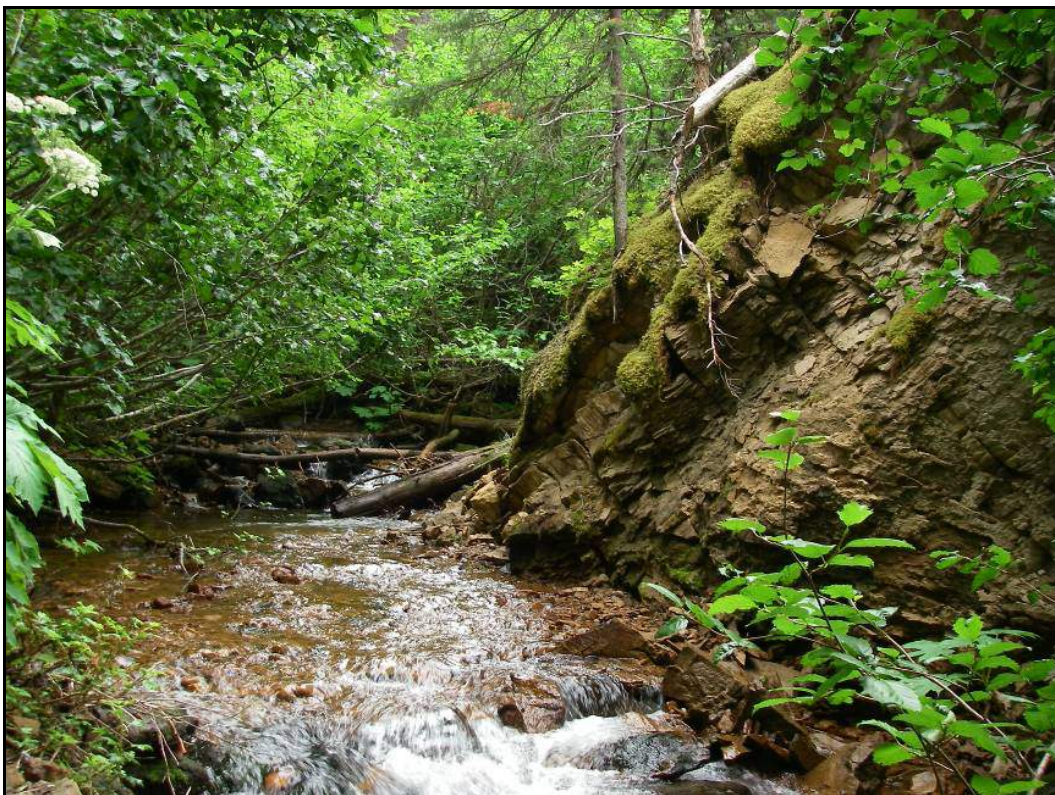
Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.036 ILP # 1099 Site 200

PHOTOS					
Photo			Foc Lg	Dir	Comments
R:	102	F: 4213	STD	NS	TC
R:	102	F: 4214	STD	NS	TC
R:	102	F: 4215	STD	NS	TC
R:	102	F: 4216	STD	NS	TC
R:	102	F: 4217	STD	NS	TC
R:	102	F: 4218	STD	NS	TC
R:	102	F: 4219	STD	NS	TC
COMMENTS					
Section			Comments		
CHANNEL			S2 - nice sp stream with LWD boulders, somplex habitat. Some drops up to .7m but probably still passable. LB is 4m higher than RB and will require rb to be filled. Don't fill flood channels. Critical habitat.		



Site 200 – Upstream, boulder step-pool morphology



Site 200 – Upstream cliffs and step-pool morphology

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1101 Site # 202

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M82
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1101 NID Map #: 104G.036 NID #: 10121 Reach #: 1.0 Site #: 202
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385537.6354612 Ref. Name:
 Date: 2007/08/18 Time: 08:55 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 103 F: 4222	STD	U	channelized section at rc

COMMENTS

Section	Comments
CHANNEL	NCD - seepage channelizes ~15m us for rc then seeps out ~20m ds of rc. Not a stream, no fish habitat.
SITE CARD	NCD



Site 202 – Upstream channelized section

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1102 Site # 203

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M83
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1102 NID Map #: 104G.036 NID #: 10122 Reach #: 1.0 Site #: 203
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385653.6354829 Ref. Name:
 Date: 2007/08/18 Time: 09:20 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.70	1.10	1.30	0.80	1.50	1.40					1.13	Method I:	15.0	C	15.00
Wetted Width (m):	MS	0.40	0.50									0.45	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .3 .4 .5 Avg: 0.40 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: S
 STG: SHR

LWD: F DIST: E
 LB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 10 Method: T3 Req #: Cond.: 210 Method: S3
 pH: 8.5 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 10.0 D (cm): 6.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 103 F: 4223	STD	D	dry section ds of rc
R: 103 F: 4224	STD	U	flowing section us of rc



Site 203 – Downstream dry section



Site 203 – Upstream flowing section

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1103 Site # 204

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M84
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1103 NID Map #: 104G.036 NID #: 10123 Reach #: 1.0 Site #: 204
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385578.6354862 Ref. Name:
 Date: 2007/08/18 Time: 09:45 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	MS	1.30	1.00	1.40	0.90	1.40	1.60					1.27	Method I:	3.0	7.0	C	5.00
Wetted Width (m):	MS	0.80	0.90	0.60	0.60	0.90	0.90					0.78	Method II:			C	
Pool Depth (m):	MS	0.30	0.25									0.28					

Wb Depth: .3 .3 .2 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	T	T	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: S
 STG: SHR

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Temp: 8 Method: T3 Req #: Cond.: 211 Method: S3
 pH: 8.0 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 8.00 D (cm): 4.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	good - nice gravel in riffles
OverWinter Habitat	poor - not enough flow or deep pools
Rearing Habitat	good - lots of cover, some deep pools

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 103 F: 4226	STD	U	
R: 103 F: 4227	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.036 ILP # 1103 Site 204

COMMENTS	
Section	Comments
CHANNEL	S4 default - very nice fishy looking small stream. Abundant cover, some pools, good spawning gravels. Important habitat.



Site 204 – Upstream view



Site 204 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1104 Site # 205

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1104 NID Map #: 104G.036 NID #: 10124 Reach #: 1.0 Site #: 205
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385650.6355219 Ref. Name:
 Date: 2007/08/18 Time: 10:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			DISTURBANCE INDICATORS									
Islands:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Coupling:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confinement:			Bars: N <input type="checkbox"/> SIDE <input type="checkbox"/> DIAG <input type="checkbox"/> MID <input type="checkbox"/> SPAN <input type="checkbox"/> BR <input type="checkbox"/>									
FSZ: <input type="checkbox"/>												

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 103 F: 4228	STD	X	
R: 103 F: 4229	STD	D	open water w of rc

COMMENTS

Section	Comments
CHANNEL	NCD - small wetland with some open water but poor connectivity. Wetland is at headwater of stream M85 and should be avoided if possible to avoid screwing up water flow ds.
SITE CARD	NCD



Site 205 – Across view



Site 205 – Downstream view, open water

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1105 Site # 206

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M85
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1105 NID Map #: 104G.036 NID #: 10125 Reach #: 1.0 Site #: 206
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385676.6355426 Ref. Name:
 Date: 2007/08/18 Time: 11:05 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.20	0.60	1.40	0.80	0.70	1.10					0.97		Method I: 21.0	20.0	C	20.50
Wetted Width (m):	MS	0.80	0.80	0.80	0.90	0.90	0.90					0.85		Method II:		C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .3 .3 Avg: 0.27 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	T	S	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 10 Method: T3 Req #: Cond.: 195 Method: S3
 pH: 8.0 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 18.0 D (cm): 4.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - low flow, no pools, steepish

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 103 F: 4230	STD	D	
R: 103 F: 4231	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1105	206

COMMENTS	
Section	Comments
CHANNEL	S6 - small stream through balsam and dc. Borderline gradient (20-21%) and marginal habitat= not fish bearing.



Site 206 – Downstream view



Site 206 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1106 Site # 207

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M86
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1106 NID Map #: 104G.036 NID #: 10126 Reach #: 1.0 Site #: 207
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385699.6355571 Ref. Name:
 Date: 2007/08/18 Time: 11:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.20	0.90	1.40	2.00	1.10	0.90					1.42	Method I:	8.0	13.0	C	10.50
Wetted Width (m):	MS	1.10	0.80	1.00	0.90	0.70	0.70					0.87	Method II:			C	
Pool Depth (m):	MS	0.18										0.18					

Wb Depth: .3 .3 .3 Avg: 0.30 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	T	T	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 230 Method: S3
 Temp: 9 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 24.0 D (cm): 9.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some patches of good gravel but steepish with some large (~50cm) steps
OverWinter Habitat	poor - not enough deep pools
Rearing Habitat	fair - some deep pools and lots of cover but moderate to high gradient

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 103 F: 4232	STD	U	.5m step at rc
R: 103 F: 4233	STD	D	ds rp/cp habitat



Site 207 – Upstream 0.5m step-pool



Site 207 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1107 Site # 208

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M87
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1107 NID Map #: 104G.036 NID #: 10127 Reach #: 1.0 Site #: 208
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385702.6355690 Ref. Name:
 Date: 2007/08/18 Time: 12:10 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.70	1.10	1.00	0.90	0.80	0.40					0.82	Method I:	28.0	22.0	C	25.00
Wetted Width (m):	MS	0.60	0.40	0.50	0.70	0.80	0.40					0.57	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .3 .4 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 10 Method: T3 Req #: Cond.: 168 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 14.0 D (cm): 6.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST Islands: N C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: DC Confinement: UN FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 103 F: 4235	STD	D	
R: 103 F: 4236	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.036 ILP # 1107 Site 208

COMMENTS	
Section	Comments
CHANNEL	S6 - small steep cp stream through alder and dc. No fish habitat.



Site 208 – Downstream view



Site 208 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1108 Site # 209

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M88 Nahta Cr.
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1108 NID Map #: 104G.036 NID #: 10128 Reach #: 1.0 Site #: 209
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385720.6356007 Ref. Name:
 Date: 2007/08/18 Time: 14:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	MS	18.00	16.00	22.00	17.00	25.00	20.00					19.67	Method I:	4.0	3.0	C	3.50
Wetted Width (m):	MS	15.00	14.00	18.00	15.00	17.00	18.00					16.17	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: 1.8 2.0 1.7 Avg: 1.83 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	S	D	N	T	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: MF

LWD: NS DIST: NA
 LB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: MF

WATER

EMS: Temp: 12 Method: T3 Req #: Cond.: 43 Method: S3
 pH: 8.1 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: log jam, erode banks Method: GE

MORPHOLOGY

Bed Material: Dominant: B Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 100.0 D (cm): 40.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.036	10129	F	1.5	GE	0	GE	R: F: L: #:		9.385720.6356007	GP3

Comments: small falls passable

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - not many suitable gravels.
OverWinter Habitat	fair - may be overwintering habitat in eddies behind boulders
Rearing Habitat	fair - swift current, but some deep pools and boulder cover

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.036 ILP # 1108 Site 209

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	103	F: 4237	STD	NS	TC 1 starting looking ds and working clockwise
R:	103	F: 4238	STD	NS	TC
R:	103	F: 4239	STD	NS	TC
R:	103	F: 4240	STD	NS	TC
R:	103	F: 4241	STD	NS	TC
R:	104	F: 4248	STD	NS	TC
R:	104	F: 4249	STD	NS	TC
R:	104	F: 4250	STD	NS	TC
COMMENTS					
Section		Comments			
CHANNEL		S2 - large stream with fair habitat. Clear and swift most cover is behind boulders. Shocked last year and found fish.			

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1109 Site # 210

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1109 NID Map #: 104G.036 NID #: 10130 Reach #: 1.0 Site #: 210
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385658.6357535 Ref. Name:
 Date: 2007/08/19 Time: 09:00 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 104 F: 4256	STD	U	dry organic substrates and gravel

COMMENTS

Section	Comments
CHANNEL	NCD - overland flow over organics a couple of areas of scour. Dry. No fish habitat.
SITE CARD	NCD



Site 210 – Upstream dry channel and gravel

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1110 Site # 211

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: _____ Local Name: _____
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1110 NID Map #: 104G.036 NID #: 10131 Reach #: 1.0 Site #: 211
 Field UTM (Z.E.N): .. Method: _____ Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385548.6357951 Ref. Name: _____
 Date: 2007/08/19 Time: 09:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.00	1.10	0.70	1.40	1.10	1.20					1.08		Method I: 6.0	9.0	C	7.50
Wetted Width (m):	MS	0.90	1.00	0.70	0.60	1.20	1.40					0.97		Method II:		C	
Pool Depth (m):	MS	0.22	0.14	0.13								0.16					

Wb Depth: Avg: 0.30 Method: MS Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 RB SHP: S Texture: F G C B R A
 RIP: C STG: MF

LWD: F DIST: E
 LB SHP: U Texture: F G C B R A
 RIP: C STG: MF

WATER

EMS: _____ Req #: _____
 Temp: 7 Method: T3 Cond.: 257 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: deposited fines Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 9.00 D (cm): 4.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some nice gravel, but questionable connectivity
OverWinter Habitat	none
Rearing Habitat	fair - good flow and a couple of small pools; lots of cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 104 F: 4257	STD	U	
R: 104 F: 4258	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1110	211

COMMENTS	
Section	Comments
CHANNEL	S4 default - small rp stream. Decent habitat but possible poor connectivity due to multiple small swd jams that create steps up to .3m high. Site not flagged.



Site 211 – Upstream view



Site 211 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1111 Site # 212

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M89
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1111 NID Map #: 104G.036 NID #: 10132 Reach #: 1.0 Site #: 212
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385511.6358187 Ref. Name:
 Date: 2007/08/19 Time: 10:35 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.70	1.60	0.90	1.10	1.30	1.50					1.35	Method I:	6.0	C	6.00
Wetted Width (m):	MS	0.40	1.00	0.60	1.00	1.00	0.80					0.80	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .3 .4 Avg: 0.35 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 LB SHP: U RB SHP: U
 Texture: F G C B R A
 RIP: C RB RIP: C
 STG: MF STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 309 Method: S3
 Temp: 9 Method: P2 Turb.: T M L C Method: GE
 pH: 8.5 Method: GE
 Flood Signs: deposited fines

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 12.0 D (cm): 3.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - lots of nice gravel but shallow and few holding areas
OverWinter Habitat	none
Rearing Habitat	poor - no pools, but abundant cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 104 F: 4261	STD	U	
R: 104 F: 4262	STD	D	



Site 212 – Upstream view



Site 212 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1113 Site # 214

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M91
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1113 NID Map #: 104G.036 NID #: 10134 Reach #: 1.0 Site #: 214
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385290.6359181 Ref. Name:
 Date: 2007/08/19 Time: 15:20 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			DISTURBANCE INDICATORS									
Islands:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Coupling:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confinement:			Bars: N <input type="checkbox"/> SIDE <input type="checkbox"/> DIAG <input type="checkbox"/> MID <input type="checkbox"/> SPAN <input type="checkbox"/> BR <input type="checkbox"/>									
FSZ: <input type="checkbox"/>												

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 104 F: 4289	STD	U	end of channelized part ~5m ds of rc

COMMENTS

Section	Comments
SITE CARD	NCD
CHANNEL	NCD - channelized for ~15m at rc, seeps out goes underground and pops out again ~20m ds of rc. No fish habitat.



Site 214 – Upstream end of channelized section

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1114 Site # 215

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M92
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1114 NID Map #: 104G.036 NID #: 10135 Reach #: 1.0 Site #: 215
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385245.6359315 Ref. Name:
 Date: 2007/08/19 Time: 15:35 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.50	0.90	1.50	1.00	0.60	0.40					0.82	Method I:	35.0	C	35.00
Wetted Width (m):	MS	0.40	0.70	1.40	0.60	0.50	0.50					0.68	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .3 .2 .3 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	S	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: N DIST: NA
 LB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 9 Method: T3 Req #: Cond.: 148 Method: S3
 pH: 8.3 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 28.0 D (cm): 12.0 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 104 F: 4290	STD	D	
R: 104 F: 4291	STD	U	



Site 215 – Downstream view



Site 215 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1115 Site # 216

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M93
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1115 NID Map #: 104G.036 NID #: 10136 Reach #: 1.0 Site #: 216
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385054.6359517 Ref. Name:
 Date: 2007/08/19 Time: 16:10 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.00	1.00	0.50	1.50	0.80	1.50					1.22	Method I:	25.0	29.0	C	27.00
Wetted Width (m):	MS	0.40	0.30	0.40	0.50	0.70	0.80					0.52	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .2 .2 Avg: 0.23 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	T	S	N	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 8 Method: T3 Req #: Cond.: 176 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 30.0 D (cm): 4.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 104 F: 4292	STD	U	trickle at rc
R: 104 F: 4293	STD	D	channel observed by dc



Site 216 – Upstream view, trickle



Site 216 – Downstream view



Site 217 – Upstream looking south



Site 217 – Downstream view to outlet



Site 217 – Upstream source



Site 217 – Downstream view from source

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1117 Site # 218

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M94
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1117 NID Map #: 104G.036 NID #: 10138 Reach #: 1.0 Site #: 218
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385034.6360299 Ref. Name:
 Date: 2007/08/20 Time: 09:10 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.80	1.40	1.50	1.20	1.30	0.90					1.18	Method I:	22.0	C	22.00
Wetted Width (m):												0.00	Method II:			
Pool Depth (m):												0.00				

Wb Depth: .2 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: Cond.: Method:
 Temp: Method: Turb.: T M L C Method: GE
 pH: Method: Method: GE
 Flood Signs: Method:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 5.00 D (cm): 5.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 105 F: 4299	STD	U	
R: 105 F: 4300	STD	D	



Site 218 – Upstream view



Site 218 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1118 Site # 219

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1118 NID Map #: 104G.036 NID #: 10139 Reach #: 1.0 Site #: 219
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385024.6360324 Ref. Name:
 Date: 2007/08/20 Time: 09:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 105 F: 4301	STD	D	

COMMENTS

Section	Comments
CHANNEL	NCD - dry, organic substrate
SITE CARD	NCD



Site 219 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1119 Site # 220

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M96
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1119 NID Map #: 104G.036 NID #: 10140 Reach #: 1.0 Site #: 220
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385034.6360354 Ref. Name:
 Date: 2007/08/20 Time: 09:35 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.80	0.60	2.30	1.70	1.40	0.60					1.40	Method I:	29.0	C	29.00
Wetted Width (m):	MS	0.70	0.40	0.50	0.20	0.10	0.20					0.35	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .2 .5 .4 Avg: 0.37 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	T	T	N	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

5 >90%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: V

Texture: F G C B R A

RIP: D

STG: PS

RB SHP: V

Texture: F G C B R A

RIP: D

STG: PS

WATER

EMS: Temp: 10 Method: T3 Req #: Cond.: 205 Method: S3
 pH: 8.4 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 16.0 D (cm): 16.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI Islands: N Coupling: DC Confinement: OC FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 105 F: 4302	STD	U	
R: 105 F: 4303	STD	D	



Site 220 – Upstream view



Site 220 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1120 Site # 221

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M97
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1120 NID Map #: 104G.036 NID #: 10141 Reach #: 1.0 Site #: 221
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385004.6360454 Ref. Name:
 Date: 2007/08/20 Time: 10:00 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.20	1.20	1.00	0.50	0.70						0.92	Method I:	22.0	C	22.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .2 .4 Avg: 0.30 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	T	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 LB SHP: V RB SHP: V
 Texture: F G C B R A
 RIP: C RB RIP: C
 STG: MF STG: MF

LWD: N DIST: NA
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 24.0 D (cm): 6.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 105 F: 4304	STD	D	
R: 105 F: 4305	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.036 ILP # 1120 Site 221

COMMENTS	
Section	Comments
SITE CARD	water measurements not taken.
CHANNEL	S6 - small dry streambed, totally covered in dc. Steep no fish habitat.



Site 221 – Downstream view



Site 221 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1121 Site # 222

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M98
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1121 NID Map #: 104G.036 NID #: 10142 Reach #: 1.0 Site #: 222
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384993.6360461 Ref. Name:
 Date: 2007/08/20 Time: 10:45 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.80	0.60	0.70	1.00	0.80	0.60					0.75	Method I:	24.0	C	24.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .2 .3 .3 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 LB SHP: V RB SHP: V
 Texture: F G C B R A
 RIP: C STG: MF

WATER

EMS: Temp: Method: T3 Req #: Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 19.0 D (cm): 4.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 105 F: 4306	STD	D	
R: 105 F: 4307	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1121	222

COMMENTS	
Section	Comments
CHANNEL	S6 - dry small stream channel. Totally covered by dc, cranberry, elderberry. No fish habitat.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1122 Site # 223

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M99 Wayne
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1122 NID Map #: 104G.036 NID #: 10143 Reach #: 1.0 Site #: 223
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384985.6361012 Ref. Name:
 Date: 2007/08/20 Time: 13:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.70	1.20	0.70	0.70	2.00	1.80					1.18	Method I:	27.0	25.0	C	26.00
Wetted Width (m):	MS	0.40	0.80	0.20	0.30	0.10	0.10					0.32	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: Avg: 0.35 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	T	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 10 Method: T3 Req #: Cond.: 109 Method: S3
 pH: 7.9 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 30.0 D (cm): 3.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 105 F: 4311	STD	D	
R: 105 F: 4313	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1122	223

COMMENTS	
Section	Comments
CHANNEL	S6 - small barely flowing creek through dc and balsam. Choked w/SWD. High gradient 27%. Portions of subsurface flow. No fish habitat.



Site 223 – Downstream view



Site 223 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1123 Site # 224

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1123 NID Map #: 104G.036 NID #: 10144 Reach #: 1.0 Site #: 224
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384978.6361222 Ref. Name:
 Date: 2007/08/20 Time: 14:20 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Islands:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coupling:												
Confinement:												
FSZ: <input checked="" type="checkbox"/>			Bars:	N <input type="checkbox"/>	SIDE <input type="checkbox"/>	DIAG <input type="checkbox"/>	MID <input type="checkbox"/>	SPAN <input type="checkbox"/>	BR <input type="checkbox"/>			

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 105 F: 4316	STD	D	from rc towards mess cr.
R: 105 F: 4317	STD	U	at rc.

COMMENTS

Section	Comments
CHANNEL	NCD - seepage with ponded water along base of slope. Seeps underground in places not continuous. Probably floods at high water from mess cr and may provide off channel refuge. Recommend cv to maintain water flow. Currently shallow stagnant and weed choked
SITE CARD	NCD



Site 224 – Downstream view



Site 224 – Upstream view



Site 225 – Upstream view



Site 225 – Downstream view



Site 226 – Upstream view



Site 226 – Downstream view



Site 226 – Across view to right bank



Site 229 – Downstream view



Site 229 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1128 Site # 231

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M105
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1128 NID Map #: 104G.036 NID #: 10155 Reach #: 1.0 Site #: 231
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384167.6362325 Ref. Name:
 Date: 2007/08/22 Time: 09:45 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.50	1.40	0.80	1.20	1.00						1.18	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .1 .2 Avg: 0.15 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	N	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: W
 STG: NA

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 10.0 D (cm): 7.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: NA
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - some potential but dries up.
OverWinter Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4343	STD	U	
R: 101 F: 4344	STD	D	



Site 231 – Upstream view



Site 231 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1129 Site # 232

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-0000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M106 Shift Cr
 Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1129 NID Map #: 104G.036 NID #: 10156 Reach #: 1.0 Site #: 232
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384075.6362392 Ref. Name:
 Date: 2007/08/22 Time: 10:15 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS											0.00		Method I: 6.0	5.0	C	5.50
Wetted Width (m):	MS	2.30	2.50	3.80	3.00	2.50	2.90					2.83		Method II:		C	
Pool Depth (m):	MS											0.00					

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	S	T	N	T	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: M STG: MF

WATER

EMS: Temp: 9 Method: T3 Req #: Cond.: 73 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 19.0 D (cm): 16.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: NA FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	good - lots of substrate, good flow
OverWinter Habitat	poor - fast flow, few really deep pools
Rearing Habitat	fair - some pools (plunge), cover from LWD and OV

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4345	STD	D	
R: 101 F: 4346	STD	U	
R: 101 F: 4347	STD	X	LB

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1129 Site 232

PHOTOS				
Photo		Foc Lg	Dir	Comments
R:	101	F: 4348	STD	X RB
COMMENTS				
Section		Comments		
CHANNEL		S3 - this crossing is on a dynamic constantly changing alluvial fan, RB present during previous trips. Extensive bedload movement, recommend moving crossing to top of fan where stream is more confined		
SITE CARD		main channel down alluvial fan, no banks, so some measurements not taken		



Site 232 – Downstream view



Site 232 – Upstream view



Site 232 – Left bank



Site 232 – Right bank

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1130 Site # 233

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M107 Big B Cr
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1130 NID Map #: 104G.036 NID #: 10157 Reach #: 1.0 Site #: 233
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383648.6363017 Ref. Name:
 Date: 2007/08/22 Time: 12:05 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.80	3.20	3.30	2.70	2.80	3.60					2.90		Method I: 5.0	6.0	C	5.50
Wetted Width (m):	MS	1.80	2.70	3.20	2.80	2.40	1.80					2.45		Method II:			
Pool Depth (m):	MS	0.32	0.29	0.40	0.25	0.35	0.30					0.32					

Wb Depth: .3 .3 .2 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	S	S	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 8 Method: T3 Req #: Cond.: 185 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: deposit sand onbank Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 23.0 D (cm): 15.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI Islands: O C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: DC Confinement: OC FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	good - lots of gravel, good flow, clear
OverWinter Habitat	good - nice deep pools, cover, good flow - lake headed
Rearing Habitat	good - clear water deep pools, lots of good quality cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 105 F: 4350	STD	U	riffle section
R: 105 F: 4351	STD	U	sp sequence @ rc
R: 105 F: 4352	STD	D	from rc

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.036 ILP # 1130 Site 233

PHOTOS				
Photo		Foc Lg	Dir	Comments
R:	105	F: 4353	STD	X deep pool us at rc
COMMENTS				
Section		Comments		
CHANNEL		S3 default - excellent stream, critical habitat. Low stable banks, somewhat confined by stable valley walls		



Site 233 – Upstream riffle section



Site 233 – Upstream step-pool section



Site 233 – Downstream view



Site 233 – Across view, showing deep pool

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1131 Site # 234

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M108
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1131 NID Map #: 104G.036 NID #: 10158 Reach #: 1.0 Site #: 234
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383567.6363093 Ref. Name:
 Date: 2007/08/22 Time: 14:00 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.60	1.70	1.60	4.70	1.40	1.40					2.07	Method I:	13.0	12.0	C	12.50
Wetted Width (m):	MS	0.70	0.60	0.90	1.20	1.20	0.80					0.90	Method II:				
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .2 .5 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 113 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: 7.8 Method: Method:
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 17.0 D (cm): 5.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.036	10159	GE	1.5	GE	2	GE	R: 101 F: 4356 L: #:		9.383548.6363152	GP3

Comments: seepage barrier, overland flow

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - patches of gravel but lots of fines, spread out
OverWinter Habitat	none
Rearing Habitat	poor - pockets of good flow, but mostly spread out, undefined

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1131 Site 234

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	101	F: 4354	STD	U	marginal flow us of rc
R:	101	F: 4355	STD	D	almost a seepage at rc
R:	101	F: 4356	STD	U	seepage barrier
R:	101	F: 4357	STD	D	decent habitat ~20m ds of rc
COMMENTS					
Section		Comments			
CHANNEL		S6 - small stream w/marginal habitat, a bit of scour @ rc but v. seepage like. Then there's a stretch of decent habitat ~20m long. Outlet has an overland flow barrier (drops 1.5m over 2m, flows over moss and SWD)			



Site 234 – Upstream view



Site 234 – Downstream view, almost a seepage



Site 234 – Upstream seepage barrier



Site 234 – Downstream good habitat

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1132 Site # 235

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M109
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1132 NID Map #: 104G.036 NID #: 10160 Reach #: 1.0 Site #: 235
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383516.6363131 Ref. Name:
 Date: 2007/08/22 Time: 14:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.60	1.90	1.50	1.90	3.90	1.80					2.10		Method I: 17.0	24.0	C	20.50
Wetted Width (m):	MS	1.20	1.60	1.20	1.80	2.40	1.50					1.62		Method II:		C	
Pool Depth (m):	MS	0.13	0.24									0.18					

Wb Depth: .3 .3 .3 Avg: 0.30 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	T	T	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: A DIST: E

LB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Temp: 6 Method: T3 Cond.: 119 Method: S3
 pH: 7.9 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 27.0 D (cm): 8.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.036	10161	C	3.0	GE	12	GE	R: F: L: #:		9.383539.6363100	GP3

Comments: 24% cascade

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - few pools, lots of debris

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.036 ILP # 1132 Site 235

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	101	F: 4358	STD	D	24% cascade barrier
R:	101	F: 4359	STD	D	@ rc
R:	101	F: 4360	STD	U	@ rc
COMMENTS					
Section			Comments		
CHANNEL			S6 - small stream w/good flow, abundant SWD at RC. Some decent pools, but generally shallow. 24% cascade barrier ~40m DS of RC		



Site 235 – Downstream 25% cascade barrier



Site 235 – Downstream view



Site 235 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1133 Site # 237

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M110
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1133 NID Map #: 104G.036 NID #: 10163 Reach #: 1.0 Site #: 237
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383484.6363126 Ref. Name:
 Date: 2007/08/22 Time: 15:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.00	0.70	2.60	2.90	1.10	1.40					1.78	Method I:	7.0	12.0	C	16.00
Wetted Width (m):	MS	1.00	0.80	2.20	2.60	1.10	1.40					1.52	Method II:	29.0		C	
Pool Depth (m):	MS	0.31	0.15									0.23					

Wb Depth: .2 .2 .4 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	S	T	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 6 Method: T3 Req #: Cond.: 108 Method: S3
 pH: 7.6 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 40.0 D (cm): 10.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none - at RC, poor DS of RC
Rearing Habitat	poor - at RC, fair ~20m ds of RC w/more pools and defined channel

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4362	STD	D	nice habitat about 20m ds from RC
R: 101 F: 4363	STD	U	crappy habitat @ rc

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1133	237

COMMENTS	
Section	Comments
CHANNEL	S6 - at RC due to marginal channelization 29% slope at rc, ~20m ds of rc maybe fb. US of road marginal w/several sections of overland and subsurface flow, mostly seepage, ~10m ds of RC several other streams enter and resulting stream is way better habitat



Site 237 – Downstream view, nice habitat



Site 237 – Upstream view, bad habitat

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1135 Site # 239

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M112
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1135 NID Map #: 104G.036 NID #: 10165 Reach #: 1.0 Site #: 239
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383477.6363136 Ref. Name:
 Date: 2007/08/22 Time: 15:55 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.70	0.70	0.90	1.20	0.60	0.90					0.83		Method I: 13.0	14.0	C	13.50
Wetted Width (m):	MS	0.40	0.90	0.50	1.40	0.70	1.30					0.87		Method II:		C	
Pool Depth (m):	MS	0.18	0.21	0.28								0.22					

Wb Depth: .4 .2 Avg: 0.30 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	S	T	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

3 41-70%

INSTREAM VEG: N A M V

LWD: A DIST: E

LB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: U

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Method: S3
 Temp: 7 Method: T3 Cond.: 118 Method: GE
 pH: 8.0 Method: P2 Turb.: T M L C
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 9.00 D (cm): 25.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - some deep pools but poor connectivity

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4366	STD	U	defined channel us of rc
R: 101 F: 4367	STD	D	from rc



Site 239 – Upstream view, defined channel



Site 239 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1138 Site # 245

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M113
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1138 NID Map #: 104G.036 NID #: 10170 Reach #: 1.0 Site #: 245
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383316.6363459 Ref. Name:
 Date: 2007/08/23 Time: 08:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.60	1.10	1.50	2.00	1.70	1.20					1.52	Method I:	13.0	26.0	C	19.50
Wetted Width (m):	MS	1.00	0.80	1.70	1.70	1.10	1.40					1.28	Method II:			C	
Pool Depth (m):	MS	0.12										0.12					

Wb Depth: .3 .3 .3 Avg: 0.30 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	S	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: A DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 151 Method: S3
 pH: 8.0 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 24.0 D (cm): 13.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI Islands: N Coupling: DC Confinement: OC FSZ:
 Bars: N SIDE DIAG MID SPAN BR

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.036	10171	RB		GE		GE	R: F: L: #:		9.383345.6363492	GP3

Comments: 26% cascade ~30m ds of RC

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - little gravel, mostly cobble
OverWinter Habitat	none
Rearing Habitat	poor - very few pools, shallow

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.036 ILP # 1138 Site 245

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	102	F: 4368	STD	D	from rc
R:	102	F: 4369	STD	U	from rc
COMMENTS					
Section		Comments			
CHANNEL		S6 - marginal habitat, shallow but clear stream with good flow. Gradient barrier ds of rc 26% slope (feature)			



Site 245 – Downstream view



Site 245 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1138 Site # 246

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M114
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1138 NID Map #: 104G.036 NID #: 10172 Reach #: 1.0 Site #: 246
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383003.6363545 Ref. Name:
 Date: 2007/08/23 Time: 09:25 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	3.70	3.00	3.40	2.70	1.10	4.70					3.10	Method I:	16.0	20.0	C	18.00
Wetted Width (m):	MS	0.90	1.30	0.90	2.00	1.30	0.90					1.22	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .4 .4 .4 Avg: 0.40 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	N	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

3 41-70%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Method: S3
 Temp: 7 Method: T3 Cond.: 190 Method: GE
 pH: 8.3 Method: P2 Turb.: T M L C
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 25.0 D (cm): 14.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - no pools

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4370	STD	U	
R: 102 F: 4371	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1138	246

COMMENTS	
Section	Comments
CHANNEL	S6 - 26% barrier @ 1st crossing, marginal habitat, no pools, shallow. Same stream as site 245.



Site 246 – Upstream view



Site 246 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1140 Site # 248

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1140 NID Map #: 104G.036 NID #: 10174 Reach #: 1.0 Site #: 248
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382977.6363387 Ref. Name:
 Date: 2007/08/23 Time: 10:35 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.60	0.30	0.50	0.30	0.20	1.00					0.48	Method I:	29.0	27.0	C	28.00
Wetted Width (m):	MS	0.30	0.10	0.20	0.60	0.20	0.60					0.33	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .5 .2 Avg: 0.30 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	S	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Temp: 8 Method: T3 Req #: Cond.: 185 Method: S3
 pH: 7.8 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 18.0 D (cm): 2.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4373	STD	U	us of rc
R: 102 F: 4374	STD	D	@ rc

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.036 ILP # 1140 Site 248

COMMENTS	
Section	Comments
CHANNEL	S6 - barely a stream, very narrow, defined channel with barely a trickle of flow. High gradient (27%)



Site 248 – Upstream view



Site 248 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1143 Site # 251

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1143 NID Map #: 104G.036 NID #: 10177 Reach #: 1.0 Site #: 251
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382955.6362792 Ref. Name:
 Date: 2007/08/23 Time: 12:00 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.70	2.60	1.70	1.80	1.60	1.90					2.05		Method I: 22.0	24.0	C	23.00
Wetted Width (m):	MS	2.00	2.10	1.60	1.50	1.40	1.40					1.67		Method II:		C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .3 .3 Avg: 0.30 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	S	N	T	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 90 Method: S3
 pH: 7.8 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 30.0 D (cm): 7.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4379	STD	U	
R: 102 F: 4380	STD	D	



Site 251 – Upstream view



Site 251 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1145 Site # 253

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M120
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1145 NID Map #: 104G.036 NID #: 10179 Reach #: 1.0 Site #: 253
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382972.6362776 Ref. Name:
 Date: 2007/08/23 Time: 13:30 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.00	1.20	1.40	6.00	4.70	4.40					3.28	Method I:	27.0	30.0	C	28.50
Wetted Width (m):	MS	0.50	0.40	0.30	0.70	0.00	0.00					0.32	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .4 .3 .4 Avg: 0.37 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	S	N	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

3 41-70%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Temp: 6 Method: T3 Cond.: 94 Method: S3
 pH: 7.6 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 46.0 D (cm): 16.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: CO
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	none

COMMENTS

Section	Comments
CHANNEL	S6 - small stream down debris chute. Scoured to rock in places. Water goes underground in places

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1146 Site # 254

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1146 NID Map #: 104G.036 NID #: 10180 Reach #: 1.0 Site #: 254
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382959.6362724 Ref. Name:
 Date: 2007/08/23 Time: 13:55 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.80	0.70	1.10	1.20	1.00	1.40					1.03		Method I: 27.0	15.0	C	21.00
Wetted Width (m):	MS	0.80	0.90	1.00	1.10	0.80	1.40					1.00		Method II:		C	
Pool Depth (m):	MS	0.13										0.13					

Wb Depth: .3 .3 .4 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	S	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 115 Method: S3
 pH: 8.0 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 32.0 D (cm): 7.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI Islands: N Coupling: DC Confinement: FC FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - steep, few pools

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4389	STD	U	cascade barrier ds of rc
R: 102 F: 4390	STD	U	@ rc
R: 102 F: 4392	STD	D	@ rc



Site 254 – Upstream cascade barrier



Site 254 – Upstream view



Site 254 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1148	256

COMMENTS	
Section	Comments
CHANNEL	S6 - small stream @ bottow of av chute. Lots of SWD. Good flow, but shallow, no pools. Probably ds barrier. Road follows stream (actually on top of stream) for several M us of rc.



Site 256 – Upstream view



Site 256 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1149 Site # 257

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M104
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 1149 NID Map #: 104G.036 NID #: 10183 Reach #: 1.0 Site #: 257
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382772.6362276 Ref. Name:
 Date: 2007/08/23 Time: 15:05 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	MS	0.60	0.50	1.10	0.30	0.50	0.80					0.63	Method I:	5.0	4.0	C	4.50
Wetted Width (m):	MS	0.40	0.50	0.70	0.40	0.60	0.80					0.57	Method II:			C	
Pool Depth (m):	MS											0.00					

Wb Depth: .3 .3 Avg: 0.30 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	N	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: NS DIST: NS

LB SHP: V

Texture: F G C B R A

RIP: M

STG: YF

RB SHP: U

Texture: F G C B R A

RIP: M

STG: YF

WATER

EMS: Temp: 7 Method: T3 Req #: Cond.: 153 Method: S3
 pH: 7.9 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: RP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	poor - no pools, lots of flow

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4399	STD	D	
R: 102 F: 4400	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1149	257

COMMENTS	
Section	Comments
SITE CARD	bedmaterial and LWD func. Missing on site card.
CHANNEL	S6 - small stream along edge of wetland. Multiple sections of underground flow, no pools. Marginal habitat.



Site 257 – Downstream view



Site 257 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 1152 Site # 260

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M126
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 1152 NID Map #: 104G.036 NID #: 10186 Reach #: 1.0 Site #: 260
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382508.6361780 Ref. Name:
 Date: 2007/08/23 Time: 15:55 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.10	0.90	0.70	1.10	0.50	0.50					0.80	Method I:	14.0	C	14.00
Wetted Width (m):	MS	1.00	1.10	0.70	0.70	0.40	0.50					0.73	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: .3 .2 .3 Avg: 0.27 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	S	N	T	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: C RB RIP: C
 STG: MF STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 168 Method: S3
 Temp: 11 Method: P2 Turb.: T M L C Method: GE
 pH: 8.0 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 13.0 D (cm): 6.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: F
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 102 F: 4412	STD	U	us to av chute, SWD
R: 102 F: 4413	STD	D	@ rc

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	1152	260

COMMENTS

Section	Comments
CHANNEL	S6 - small stream comes from av chute and splits into 2 channels just us of rc. Shallow no pools, marginal habitat. Probably gradient barrier ds.



Site 260 – Upstream to avalanche chute



Site 260 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2000 Site # 300

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M27 Arctic Cr.
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2000 NID Map #: 104G.016 NID #: 20000 Reach #: 1.0 Site #: 300
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383909.6337546 Ref. Name:
 Date: 2007/08/10 Time: 09:10 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	14.30	12.80	12.00	10.60	13.30	12.00					12.50		Method I: 4.0	6.0	C	4.33
Wetted Width (m):	MS	10.70	11.40	8.50	7.40	8.30	7.40					8.95		Method II: 3.0		C	
Pool Depth (m):	MS	0.38	0.35	0.48	0.27	0.36						0.37					

Wb Depth: .8 .8 .6 Avg: 0.73 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	D	N	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: S

Texture: F G C B R A

RIP: D

STG: PS

RB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

WATER

EMS: Req #: Temp: 4 Method: T3 Cond.: 50 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: rafted lg and sm wd Method: GE

MORPHOLOGY

Bed Material: Dominant: B Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 0.90 D (cm): 0.23 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - primarily boulders and cobbles. Occasional gravel patches.
OverWinter Habitat	fair - few deep pools and no overhanging banks
Rearing Habitat	good - plenty of cover and boulders in stream

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 106 F: 389	STD	U	
R: 106 F: 390	STD	D	
R: 106 F: 391	STD	X	erode bank LB

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2000 Site 300

PHOTOS				
Photo		Foc Lg	Dir	Comments
R:	106	F:	392	STD X eroding bank LB
R:	106	F:	393	STD X abandoned channel
COMMENTS				
Section		Comments		
CHANNEL		S3 Default - adequate habitat probably not dense enough to have recovered fish via shocking. Important habitat value. Recommend moving bridge site us 40+m due to eroding banks on RB.		



Site 300 – Upstream view



Site 300 – Downstream view



Site 300 – Erosion left bank



Site 300 – Erosion right bank



Site 300 – Abandoned channel

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2001 Site # 301

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M28
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2001 NID Map #: 104G.016 NID #: 20001 Reach #: 1.0 Site #: 301
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384549.6338538 Ref. Name:
 Date: 2007/08/10 Time: 15:30 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

Mtd	width	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %	Mtd	Avg
Channel Width (m):												0.00	Method I:		0.00
Wetted Width (m):												0.00	Method II:		
Pool Depth (m):												0.00			

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: Cond.: Method:
 Temp: Method: Turb.: T M L C Method: GE
 pH: Method:
 Flood Signs: Method:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

COMMENTS

Section	Comments
CHANNEL	no visible channel
SITE CARD	no visible channel

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2002 Site # 302

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M29
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2002 NID Map #: 104G.016 NID #: 20002 Reach #: 1.0 Site #: 302
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384561.6338542 Ref. Name:
 Date: 2007/08/10 Time: 15:45 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

Mtd	width	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %			Mtd	Avg
Channel Width (m):												0.00	Method I:				0.00
Wetted Width (m):												0.00	Method II:				
Pool Depth (m):												0.00					

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LWD: DIST:
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: Cond.: Method:
 Temp: Method: Turb.: T M L C Method: GE
 pH: Method:
 Flood Signs: Method:

MORPHOLOGY

Bed Material: Dominant: B Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 106 F: 403	STD	U	lighter for scale

COMMENTS

Section	Comments
CHANNEL	NCD
SITE CARD	NCD



Site 302 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2007 Site # 307

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M34
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2007 NID Map #: 104G.016 NID #: 20007 Reach #: 1.0 Site #: 307
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384858.6339948 Ref. Name:
 Date: 2007/08/10 Time: 08:30 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	3.00	1.40	2.00	2.60	1.80	0.90					1.95	Method I:	37.0	C	37.00
Wetted Width (m):	MS	1.40	0.70	1.30	2.00	1.20	0.90					1.25	Method II:		C	
Pool Depth (m):	MS	0.10	0.19	0.10	0.11	0.12	0.17					0.13				

Wb Depth: .4 .5 .7 Avg: 0.53 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	D				T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

LWD: F DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: D
 STG: PS

WATER

EMS: Req #: Method: S3
 Temp: 4 Method: T3 Cond.: 80 Method: GE
 pH: 8.1 Method: P2 Turb.: T M L C
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 60.0 D (cm): 2.50 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none - poor substrate and high gradient
OverWinter Habitat	none - few pools
Rearing Habitat	poor - gradient and few pools, but good boulder cover.

PHOTOS

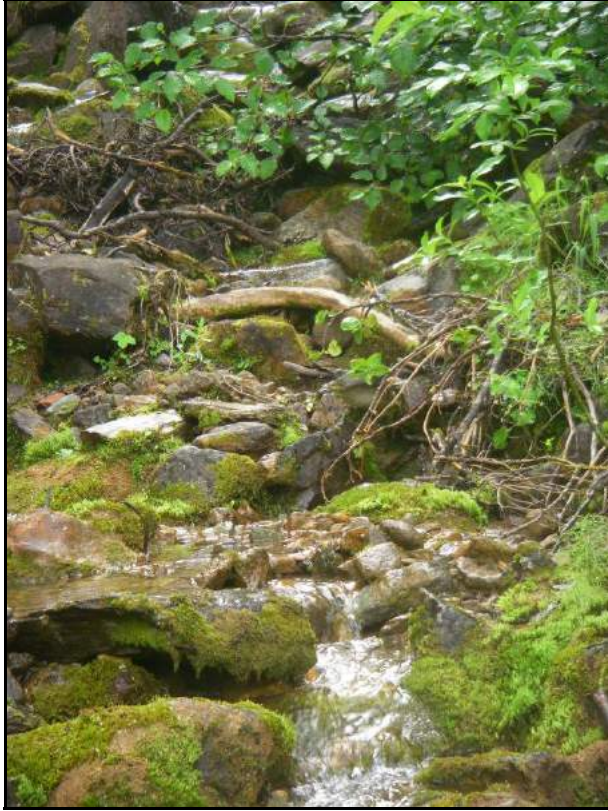
Photo	Foc Lg	Dir	Comments
R: 107 F: 408	STD	U	
R: 107 F: 410	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	2007	307

COMMENTS	
Section	Comments
CHANNEL	S6 - beautiful glacier fed stream, high gradient with no habitat value due to slope, current and lack of pools. Riparian veg consisted on alder and devils club. Marginal habitat value.



Site 307 – Upstream view



Site 307 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2008 Site # 308

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M36
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2008 NID Map #: 104G.016 NID #: 20008 Reach #: 1.0 Site #: 308
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384893.6340048 Ref. Name:
 Date: 2007/08/10 Time: 09:50 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	2.00	1.30	0.90	2.30	1.20	1.40					1.52		Method I: 40.0	38.0	C	31.67
Wetted Width (m):	MS	0.50	0.90	0.80	0.90	1.00	0.80					0.82		Method II: 17.0		C	
Pool Depth (m):	MS	0.10	0.12	0.11	0.11	0.90	0.70					0.34					

Wb Depth: .4 .6 .4 Avg: 0.47 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T		S	T		D	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

5 >90%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S

Texture: F G C B R A

RIP: C

STG: PS

RB SHP: S

Texture: F G C B R A

RIP: D

STG: PS

WATER

EMS: Req #: Method: T3 Cond.: 160 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 48.0 D (cm): 20.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: CO
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	fair - slow flows with good cover but few pools and shallow

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 411	STD	U	note extensive over veg.
R: 107 F: 412	STD	D	



Site 308 – Upstream view



Site 308 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2009 Site # 309

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M37
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2009 NID Map #: 104G.016 NID #: 20009 Reach #: 1.0 Site #: 309
 Field UTM (Z.E.N): Method: Site Lg: 50 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384890.6340063 Ref. Name:
 Date: 2007/08/10 Time: 10:10 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

COMMENTS

Section	Comments
CHANNEL	NCD - seepage channel. Some gravel accumulated but no scour and no banks and overgrown.
SITE CARD	NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2010 Site # 310

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2010 NID Map #: 104G.016 NID #: 20010 Reach #: 1.0 Site #: 310
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384963.6340087 Ref. Name:
 Date: 2007/08/10 Time: 10:40 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.36	0.45	0.30	0.34							0.36	Method I:	38.0	42.0	C	38.67
Wetted Width (m):	MS	0.16	0.20	0.12								0.16	Method II:		36.0	C	
Pool Depth (m):	MS											0.00					

Wb Depth: .2 .5 .2 Avg: 0.30 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D					S	
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 5 >90%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

LWD: N DIST: NA
 LB SHP: U
 Texture: F G C B R A
 RIP: S
 STG: YF

WATER

EMS: Temp: 3 Method: T3 Req #: Cond.: 190 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: this could be fld ch Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 2.00 D (cm): 0.01 Morph: SP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 413	STD	U	with pencil for scale
R: 107 F: 414	STD	D	
R: 107 F: 415	STD	X	showing lack of formal banks at road crossing



Site 310 – Upstream view



Site 310 – Downstream view



Site 310 – Across view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2011 Site # 311

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2011 NID Map #: 104G.016 NID #: 10227 Reach #: 1.0 Site #: 311
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384887.6340234 Ref. Name:
 Date: 2007/08/26 Time: 15:30 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.72	2.18	2.93	3.25	3.30	2.59					2.66	Method I:	26.0	10.0	C	17.00
Wetted Width (m):	MS	0.75	1.50	2.05	2.89	2.66	1.66					1.92	Method II:	15.0		C	
Pool Depth (m):	MS	0.15	0.23									0.19					

Wb Depth: .3 .2 Avg: 0.25 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	D	S	T	T	S	T	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>

CROWN CLOSURE

2 21-40%

INSTREAM VEG: N A M V

LWD: F DIST: C

LB SHP: V

Texture: F G C B R A

RIP: S

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: C

STG: SHR

WATER

EMS: Temp: 6 Method: T3 Req #: Cond.: 210 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: overflow channel Method: GE

MORPHOLOGY

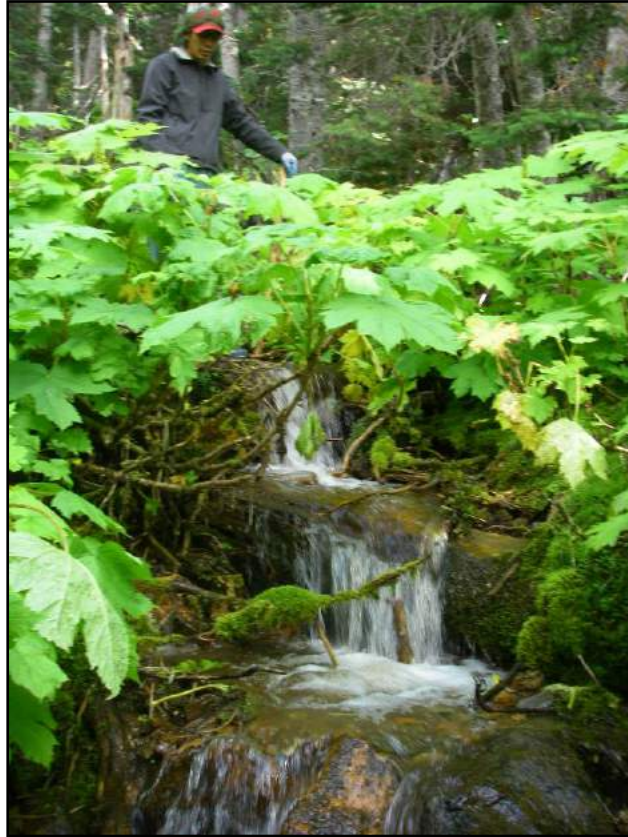
Bed Material: Dominant: B Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 0.41 D (cm): 0.41 Morph: SPB DISTURBANCE INDICATORS
 Pattern: TM C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC FSZ:

PHOTOS

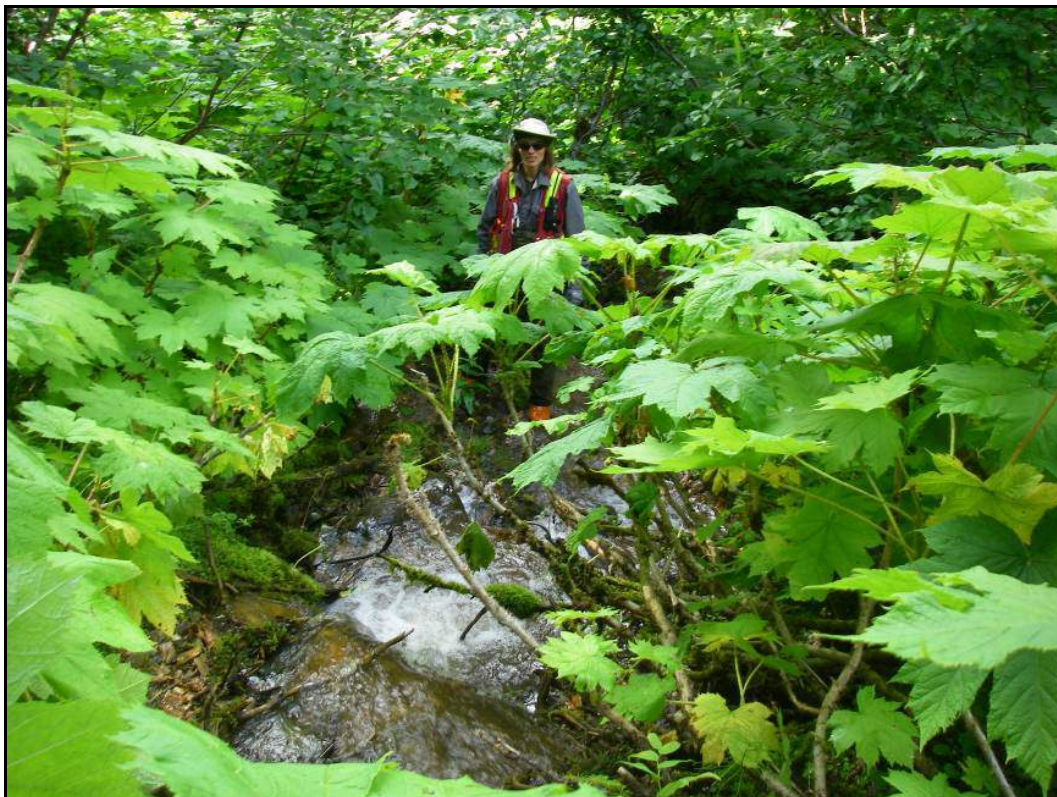
Photo	Foc Lg	Dir	Comments
R: 102 F: 2	STD	U	
R: 102 F: 3	STD	D	

COMMENTS

Section	Comments
CHANNEL	S6 - steep gradient barrier (26%) ds of rc for 15m, then 10% ds from there. Boulder and cobble with some gravel (shale). LWD forms step pools ds of rc. 15% us of rc.



Site 311 – Upstream view



Site 311 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.0 ILP Map # 104G.016 ILP # 2011 Site # 312

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M38
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2011 NID Map #: 104G.016 NID #: 20013 Reach #: 2.0 Site #: 312
 Field UTM (Z.E.N): .. Method: Site Lg: 50 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384899.6340250 Ref. Name:
 Date: 2007/08/06 Time: 12:00 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.70	1.80	2.00	2.30	3.20	3.00					2.33		Method I: 26.0	C	26.00
Wetted Width (m):	MS	1.50	1.50	2.00	2.00	2.40	2.70					2.02		Method II:		C
Pool Depth (m):	MS	0.11	0.24	0.20	0.17	0.10	0.70	0.25				0.25				

Wb Depth: .3 .6 .4 Avg: 0.43 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D				D	
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 5 >90%
 INSTREAM VEG: N A M V

LWD: NS DIST: NS
 LB SHP: Texture: F G C B R A
 RIP: S STG: SHR
 RB SHP: Texture: F G C B R A
 RIP: C STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 180 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 50.0 D (cm): 3.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	20014	F	2.0	GE	3	GE	R: 107 F: 421 L: #:		9.384899.6340250	GP3

Comments: possible barrier

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - good gravel substrate except for ds mult channel avulsions and wetland area
OverWinter Habitat	poor - good cover no deep pools
Rearing Habitat	good - excellent flow and cover and food source, few small pools

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.0 ILP Map # 104G.016 ILP # 2011 Site 312

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 107	F: 420	STD	D	
R: 107	F: 421	STD	U	barriers possible
WILDLIFE				
Group		Observations		
BIR		songbird feathers		
MAM		moose scat		
COMMENTS				
Section		Comments		
CHANNEL		S4 - reach 2 exhibits good gravel substrate and good cover. The stream is wildly unconfined yet streamlike 100% ov for cover. Good flow nd many side channels. Important habitat values.		



Site 312 – Downstream view



Site 312 – Upstream view, possible barrier

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2012 Site # 313

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: _____ Local Name: _____
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2012 NID Map #: 104G.016 NID #: _____ Reach #: 1.0 Site #: 313
 Field UTM (Z.E.N): _____ Method: _____ Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384826.6340470 Ref. Name: _____
 Date: 2007/08/10 Time: 15:05 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.30	1.50	1.70	0.90	1.20						1.32	Method I:	17.0	C	17.00
Wetted Width (m):	MS	0.70	1.10	0.80	0.80	0.90						0.86	Method II:		C	
Pool Depth (m):	MS	0.12	0.14	0.19								0.15				

Wb Depth: Avg: 0.40 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T				D	
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 4 71-90%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: S RB RIP: C
 STG: SHR STG: MF

WATER

EMS: _____ Req #: _____
 Temp: 7 Method: T3 Cond.: 260 Method: S3
 pH: _____ Method: P2 Turb.: T M L C Method: GE
 Flood Signs: _____ Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 1.00 Morph: SP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: NS
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - low h20 level wetland barrier leading to decent gravel.
OverWinter Habitat	none
Rearing Habitat	poor - low velocity flow. Muddy substrate leading to nice gravel sp.

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 423	STD	D	pen for scale
R: 107 F: 424	STD	D	better photo of ds
R: 107 F: 425	STD	NS	dead vole

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2012 Site 313

PHOTOS				
Photo		Foc Lg	Dir	Comments
R:	107	F:	426	STD U note 18% ov.
WILDLIFE				
Group		Observations		
MAM		moose scat		
MAM		dead vole		
COMMENTS				
Section		Comments		
CHANNEL		S6 - habitat value important, compromised by wetland adct to Mess Cr. Good gravels flow unconfined. Extensive devils club= rip veg.		



Site 313 – Downstream view



Site 313 – Downstream view



Site 313 – Dead vole



Site 313 – Upstream view showing vegetation

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2013 Site # 314

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2013 NID Map #: 104G.016 NID #: 20016 Reach #: 1.0 Site #: 314
 Field UTM (Z.E.N): .. Method: Site Lg: 30 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384852.6340678 Ref. Name:
 Date: 2007/08/18 Time: 15:20 Agency: C660 Crew: SH RD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 107 F: 430	STD	NS	

COMMENTS

Section	Comments
CHANNEL	NCD - seepage starting to form a channel though.



Site 314 – Showing stream bed

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2050 Site # 320

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.):
 Project Watershed Code: 610-517000-59500-00000-0000-0000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Local Name: M222
 ILP Map #: 104G.016 ILP #: 2050 NID Map #: 104G.016 NID #: 20020 Reach #: 1.0 Site #: 320
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382514.6331690 Ref. Name:
 Date: 2007/10/11 Time: 09:18 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.20	1.20	0.75	1.10	1.10	0.80					1.03		Method I: 15.0	9.0	C	12.00
Wetted Width (m):	MS	0.80	0.70	0.50	0.70	0.85	0.60					0.69		Method II:		C	
Pool Depth (m):	MS	0.06	0.04	0.07	0.12	0.08	0.11					0.08					

Wb Depth: .3 .7 .3 Avg: 0.43 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	S	N	N	T	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 1 Method: T3 Req #: Cond.: 20 Method: S3
 pH: 8.5 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 0.50 D (cm): 5.00 Morph: RPG DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: NS
 Coupling: CO
 Confinement: CO FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	poor - minimal pool depth and flow
Rearing Habitat	poor - minimal pool depth and flow
Spawning Habitat	poor - few sections of fine mix. Lots of organics.

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1370	STD	U	
R: DIG F: 1371	STD	D	
R: DIG F: 1372	STD	X	looking west



Site 320 – Upstream view



Site 320 – Downstream view



Site 320 – Looking west across stream

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2051 Site # 321

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.):
 Project Watershed Code: 610-517000-59500-00000-0000-0000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: Local Name: M221
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2051 NID Map #: 104G.016 NID #: 20021 Reach #: 1.0 Site #: 321
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382573.6332015 Ref. Name:
 Date: 2007/10/11 Time: 09:50 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.80	0.82	0.79	0.78	0.72	0.94					0.81		Method I: 1.0	C	1.00
Wetted Width (m):	MS	0.66	0.61	0.61	0.61	0.61	0.77					0.65		Method II:		C
Pool Depth (m):	MS	0.28	0.20	0.50	0.50	0.60	0.40					0.41				

Wb Depth: Avg: 0.40 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	D	S	S	T
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Temp: 1 Method: T3 Req #: Cond.: 50 Method: S3
 pH: 8.1 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: NA O1 B1 B2 B3 D1 D2 D3
 D95: 0.50 D (cm): 2.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	poor - minimal depth and flow.
Rearing Habitat	good - abundant cover
Spawning Habitat	poor - few gravels

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1374	STD	U	
R: DIG F: 1375	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	2051	321

COMMENTS	
Section	Comments
CHANNEL	S6 - resample 0.5 degrees at sample time. Good channel with cover in wetland/marsh.



Site 321 – Upstream view



Site 321 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2052 Site # 322

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.):
 Project Watershed Code: 610-517000-59500-00000-0000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: Local Name: M220
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2052 NID Map #: 104G.016 NID #: 20022 Reach #: 1.0 Site #: 322
 Field UTM (Z.E.N): .. Method: Site Lg: 75 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382595.6332113 Ref. Name:
 Date: 2007/10/11 Time: 10:10 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1376	STD	D	

COMMENTS

Section	Comments
CHANNEL	NCD - flows nto WL with M221. intermittent dry, no defined channel.
SITE CARD	NCD



Site 322 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2053 Site # 323

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.):
 Project Watershed Code: 610-517000-59500-00000-0000-0000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2053 NID Map #: 104G.016 NID #: 20023 Reach #: 1.0 Site #: 323
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382603.6332164 Ref. Name:
 Date: 2007/10/11 Time: 10:20 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1377	STD	U	

COMMENTS

Section	Comments
CHANNEL	NCD - short reach with water and flow <100m
SITE CARD	NCD



Site 323 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2054 Site # 324

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.):
 Project Watershed Code: 610-517000-59500-00000-0000-0000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2054 NID Map #: 104G.016 NID #: 20024 Reach #: 1.0 Site #: 324
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382616.6332247 Ref. Name:
 Date: 2007/10/11 Time: 10:32 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.50	0.53	0.70	0.64	0.44	0.35					0.53		Method I: 25.0	30.0	C	33.33
Wetted Width (m):	MS	0.30	0.41	0.49	0.46	0.32	0.27					0.38		Method II: 45.0		C	
Pool Depth (m):	MS	0.03	0.10	0.06	0.02	0.04	0.04					0.05					

Wb Depth: .1 .1 .1 Avg: 0.10 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	N	N	T	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: NS DIST: NS
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 1 Method: T3 Req #: Cond.: 10 Method: S3
 pH: 8.3 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: NA O1 B1 B2 B3 D1 D2 D3
 D95: 0.50 D (cm): 3.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: SI Islands: N Coupling: DC Confinement: CO FSZ:
 Bars: N SIDE DIAG MID SPAN BR

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	20025	C	30.0	GE	50	GE	R: F: L: #:		9.382650.6332238	GP3

Comments: gradient barrier >40%

HABITAT QUALITY

Name	Comments
OverWinter Habitat	poor - shallow pools
Rearing Habitat	poor - shallow pools
Spawning Habitat	poor - few fines, poor gravel mix



Site 324 – Upstream view



Site 324 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2056 Site # 326

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M219
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2056 NID Map #: 104G.016 NID #: 20027 Reach #: 1.0 Site #: 326
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382477.6332728 Ref. Name:
 Date: 2007/10/11 Time: 11:15 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.30	1.00	1.30	1.10	1.00	1.10					1.13		Method I: 22.0	27.0	C	30.67
Wetted Width (m):	MS	1.20	0.80	1.10	0.90	0.70	0.76					0.91		Method II: 43.0		C	
Pool Depth (m):	MS	0.12	0.12	0.10	0.90	0.80	0.30					0.39					

Wb Depth: .3 .4 .3 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	T	S	S	D	T	N
Loc: P/S/O:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: NS DIST: NS
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 70 Method: S3
 Temp: 1 Method: P2 Turb.: T M L C Method: GE
 pH: 8.0 Method: GE
 Flood Signs: none

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 2.00 D (cm): 20.00 Morph: RPG DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: EN
 FSZ:

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.016	20028	C	50.0	GE	75	GE	R: DIG F: 1385 L: #:		9.382500.6332732	GP3

Comments: >40%

HABITAT QUALITY

Name	Comments
OverWinter Habitat	good - cover, pools, flow
Rearing Habitat	good - abundant cover
Spawning Habitat	good - nice mix of fines



Site 326 – Downstream view



Site 326 – Upstream view



Site 326 – Downstream view



Site 326 – Across view



Site 327 – Upstream view



Site 327 – Downstream view



Site 327 – Cascade

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2058 Site # 328

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2058 NID Map #: 104G.016 NID #: 20031 Reach #: 1.0 Site #: 328
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382515.6333003 Ref. Name:
 Date: 2007/10/11 Time: 12:30 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1393	STD	D	

COMMENTS

Section	Comments
SITE CARD	NCD
CHANNEL	NCD - McElhanney notes as seepage



Site 328 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # 1.0 ILP Map # 104G.016 ILP # 2059 Site 329

PHOTOS					
Photo			Foc Lg	Dir	Comments
R:	DIG	F: 1394	STD	U	
R:	DIG	F: 1395	STD	D	
COMMENTS					
Section		Comments			
CHANNEL		S6 - >35% at mouth into S Mess lk.			



Site 329 – Upstream view



Site 329 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2060 Site # 330

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2060 NID Map #: 104G.016 NID #: 20034 Reach #: 1.0 Site #: 330
 Field UTM (Z.E.N): Method: Site Lg: 50 Method: GE Access: FT
 GIS UTM (Z.E.N): 9.382596.6333213 Ref. Name:
 Date: 2007/10/11 Time: 13:00 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:	C	0.00
Wetted Width (m):	MS										0.00	Method II:	C	
Pool Depth (m):	MS										0.00			

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1396	STD	U	

COMMENTS

Section	Comments
CHANNEL	NCD - "overland flow". No defined channel scour or continual reach.
SITE CARD	NCD



Site 330 – Upstream view of NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2061 Site # 331

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M216
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2061 NID Map #: 104G.016 NID #: 20035 Reach #: 1.0 Site #: 331
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: FT
 GIS UTM (Z.E.N): 9.382591.6333445 Ref. Name:
 Date: 2007/10/11 Time: 13:10 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	MS	12.00	11.30	10.80	9.50	10.00	8.20					10.30	Method I:	6.0	2.0	C	4.00
Wetted Width (m):	MS	2.10	2.30	3.20	3.20	5.00	5.20					3.50	Method II:			C	
Pool Depth (m):	MS	0.15	0.12	0.12	0.10	0.10	0.10					0.12					

Wb Depth: .7 .8 1.3 Avg: 0.93 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: N

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	D	N	S	T	N
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: NS DIST: NS
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 0 Method: T3 Req #: Cond.: 110 Method: S3
 pH: 7.7 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 4.50 D (cm): 60.00 Morph: RPC DISTURBANCE INDICATORS
 Pattern: NS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: EN FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	good - pools and flow
Rearing Habitat	good - abundant cover
Spawning Habitat	good - lots of fines

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1344	STD	D	
R: DIG F: 1346	STD	U	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 2061 Site 331

COMMENTS	
Section	Comments
CHANNEL	S2 default - return to sample/EF

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2062 Site # 332

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M215
 Watershed Code: 000-000000-00000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2062 NID Map #: 104G.016 NID #: 20036 Reach #: 1.0 Site #: 332
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: FT
 GIS UTM (Z.E.N): 9.382775.6334355 Ref. Name:
 Date: 2007/10/11 Time: 14:25 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.30	1.40	1.90	1.10	1.60	1.30					1.43		Method I: 35.0	C	35.00
Wetted Width (m):	MS	0.80	1.20	1.20	0.70	1.10	1.10					1.02		Method II:		C
Pool Depth (m):	MS	0.11	0.06	0.12	0.12	0.16	0.10					0.11				

Wb Depth: .3 .5 .6 Avg: 0.47 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	D	T	S	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: NS DIST: NS
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 40 Method: S3
 Temp: 1 Method: P2 Turb.: T M L C Method: GE
 pH: 8.1 Method: GE
 Flood Signs: none

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 3.00 D (cm): 20.00 Morph: CPC DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO
 Confinement: EN FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	poor - steep
Rearing Habitat	poor - cascade pool morph
Spawning Habitat	poor -

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1419	STD	U	from creek at mouth
R: DIG F: 1420	STD	U	at crossing
R: DIG F: 1421	STD	D	at crossing

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	2062	332

COMMENTS	
Section	Comments
CHANNEL	S6 - ~35% gradient along entire reach. 2m drops at line. Other wise step pool. Barrier at mouth.



Site 332 – Upstream view



Site 332 – Upstream view



Site 332 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2063 Site # 333

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M214
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2063 NID Map #: 104G.016 NID #: 20037 Reach #: 1.0 Site #: 333
 Field UTM (Z.E.N): .. Method: Site Lg: 50 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382756.6334570 Ref. Name:
 Date: 2007/10/11 Time: 15:00 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	1.10	0.80	0.90	1.30	1.25	0.80					1.02	Method I:	75.0	C	75.00
Wetted Width (m):												0.00	Method II:			
Pool Depth (m):												0.00				

Wb Depth: .6 .5 .5 Avg: 0.53 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent: Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	T	D	T	T	T	N
Loc: P/S/O:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: Cond.: Method:
 Temp: Method: Turb.: T M L C Method: GE
 pH: Method: Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 3.00 D (cm): 20.00 Morph: CPC DISTURBANCE INDICATORS
 Pattern: ST Islands: N C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: DC Confinement: CO FSZ: Bars: N SIDE DIAG MID SPAN BR

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1423	STD	U	
R: DIG F: 1424	STD	D	

COMMENTS

Section	Comments
CHANNEL	S6 - 75% gradient.



Site 333 – Upstream view



Site 333 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2064 Site # 334

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M213
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2064 NID Map #: 104G.016 NID #: 20038 Reach #: 1.0 Site #: 334
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382760.6334600 Ref. Name:
 Date: 2007/10/11 Time: 15:15 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.70	0.85	0.82	0.70	0.75	0.80					0.77	Method I:	45.0	41.0	C	43.00
Wetted Width (m):												0.00	Method II:				
Pool Depth (m):												0.00					

Wb Depth: .2 .4 .3 Avg: 0.30 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	T	D	T	S	T	N
Loc: P/S/O:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: Cond.: Method:
 Temp: Method: Turb.: T M L C Method: GE
 pH: Method: Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 3.00 D (cm): 20.00 Morph: CPC DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: EN
 FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1425	STD	U	
R: DIG F: 1426	STD	D	

COMMENTS

Section	Comments
CHANNEL	S6



Site 334 – Upstream view



Site 334 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2066 Site # 335

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M211
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2066 NID Map #: 104G.016 NID #: 20040 Reach #: 1.0 Site #: 335
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382980.6335493 Ref. Name:
 Date: 2007/10/12 Time: 08:55 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.20	1.13	1.16								1.16	Method I:	22.0	50.0	C	36.00
Wetted Width (m):												0.00	Method II:				
Pool Depth (m):												0.00					

Wb Depth: .2 .4 .4 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	S	T	N	N	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: NS DIST: NS
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: Cond.: Method:
 Temp: Method: Turb.: T M L C Method: GE
 pH: Method: Method: GE
 Flood Signs: Method: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 1.50 D (cm): 10.00 Morph: RPG DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO
 Confinement: CO
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	poor
Rearing Habitat	poor
Spawning Habitat	poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1436	STD	U	
R: DIG F: 1437	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 2066 Site 335

COMMENTS	
Section	Comments
CHANNEL	S6 - dry channel no fish habitat.



Site 335 – Upstream view



Site 335 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2067 Site # 336

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M210 Chunky Mtn Cr.
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2067 NID Map #: 104G.016 NID #: 20041 Reach #: 1.0 Site #: 336
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382999.6335568 Ref. Name:
 Date: 2007/10/12 Time: 09:10 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg		
Channel Width (m):	MS	2.10	1.90	3.30							2.43		Method I:	36.0	40.0	C	38.00
Wetted Width (m):											0.00		Method II:				
Pool Depth (m):											0.00						

Wb Depth: .5 .6 .5 Avg: 0.53 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	D	N	T	N	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: Cond.: Method:
 Temp: Method: Turb.: T M L C Method: GE
 pH: Method: Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: B Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 10.0 D (cm): 25.00 Morph: CPB DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO Bars: N SIDE DIAG MID SPAN BR
 Confinement: EN
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Rearing Habitat	none
Spawning Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1439	STD	U	
R: DIG F: 1440	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 2067 Site 336

COMMENTS	
Section	Comments
CHANNEL	S6 - steep dry channel.



Site 336 – Upstream view



Site 336 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2068 Site # 337

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M209
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2068 NID Map #: 104G.016 NID #: 20042 Reach #: 1.0 Site #: 337
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383011.6335800 Ref. Name:
 Date: 2007/10/12 Time: 09:20 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.10	1.12	1.20	1.00	1.30	1.20					1.15	Method I:	50.0	45.0	C	47.50
Wetted Width (m):	MS	0.80	0.82	0.70	0.90	0.87	0.88					0.83	Method II:			C	
Pool Depth (m):	MS	0.03	0.03	0.03	0.05	0.06	0.04					0.04					

Wb Depth: .3 .3 .5 Avg: 0.37 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	D	T	T	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: S3
 Temp: 1 Method: T3 Cond.: 210 Method: GE
 pH: 8.3 Method: P2 Turb.: T M L C
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 2.50 D (cm): 17.00 Morph: RPC DISTURBANCE INDICATORS
 Pattern: ST Islands: N C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: CO Confinement: EN FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Rearing Habitat	poor
OverWinter Habitat	poor
Spawning Habitat	poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1443	STD	U	
R: DIG F: 1444	STD	D	



Site 337 – Upstream view



Site 337 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2069 Site # 338

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M208
 Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2069 NID Map #: 104G.016 NID #: 20043 Reach #: 1.0 Site #: 338
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383031.6335856 Ref. Name:
 Date: 2007/10/12 Time: 09:35 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.00	1.10	1.13	1.50							1.18	Method I:	45.0	C	45.00
Wetted Width (m):	MS	0.60	0.40	0.57	0.70							0.57	Method II:		C	
Pool Depth (m):	MS	0.02	0.03	0.02	0.02							0.02				

Wb Depth: .5 .5 .5 Avg: 0.50 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	S	D	T	T	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 LB SHP: V RB SHP: V
 Texture: F G C B R A
 RIP: M RIP: C
 STG: MF STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: MF

WATER

EMS: Temp: 1 Method: T3 Req #: Cond.: 210 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 4.00 D (cm): 7.00 Morph: RPC DISTURBANCE INDICATORS
 Pattern: ST Islands: NS Coupling: CO Confinement: EN FSZ:
 Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	poor
Rearing Habitat	poor
Spawning Habitat	poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1446	STD	U	
R: DIG F: 1448	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 2069 Site 338

COMMENTS	
Section	Comments
CHANNEL	S6 - steep channel.



Site 338 – Upstream view



Site 338 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2070 Site # 339

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M207
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2070 NID Map #: 104G.016 NID #: 20044 Reach #: 1.0 Site #: 339
 Field UTM (Z.E.N): .. Method: Site Lg: 75 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383089.6335998 Ref. Name:
 Date: 2007/10/12 Time: 09:54 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.70	0.75	1.60	2.50	1.80	2.00					1.56	Method I:	45.0	C	45.00
Wetted Width (m):	MS	0.30	0.28	0.60	0.70	0.65	0.60					0.52	Method II:		C	
Pool Depth (m):	MS	0.03	0.03	0.05	0.05	0.05	0.03					0.04				

Wb Depth: .1 .2 .2 Avg: 0.17 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	S	S	N	T	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Req #: Method: S3
 Temp: 1 Method: T3 Cond.: 220 Method: GE
 pH: 8.0 Method: P2
 Flood Signs: none Method: GE Turb.: T M L C

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 4.00 D (cm): 10.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO
 Confinement: CO
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Rearing Habitat	poor
OverWinter Habitat	poor
Spawning Habitat	poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1451	STD	U	
R: DIG F: 1452	STD	D	



Site 339 – Upstream view



Site 339 – Downstream view



Site 340 – Upstream view



Site 340 – Downstream view



Site 340 – Across view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2072 Site # 341

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: _____ Local Name: M205
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2072 NID Map #: 104G.016 NID #: 20046 Reach #: 1.0 Site #: 341
 Field UTM (Z.E.N): .. Method: _____ Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383200.6336190 Ref. Name: _____
 Date: 2007/10/12 Time: 10:40 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.50	1.60	2.20	2.80	2.10	2.00					2.03		Method I: 60.0	C	60.00
Wetted Width (m):	MS	0.90	1.20	2.00	2.40	1.40	1.50					1.57		Method II:		C
Pool Depth (m):	MS	0.05	0.04	0.04	0.03	0.03	0.03					0.04				

Wb Depth: Avg: 0.40 Method: MS Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	T	T	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: NS DIST: C
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: _____ Req #: _____
 Temp: 1 Method: T3 Cond.: 180 Method: S3
 pH: 8.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: none Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 2.00 D (cm): 10.00 Morph: RPG DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO
 Confinement: EN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Spawning Habitat	none
Rearing Habitat	none

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1459	STD	U	
R: DIG F: 1460	STD	D	

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.016	2072	341

COMMENTS	
Section	Comments
CHANNEL	S6 - steep gradient. In valley wall, tributary to Tish Cr.



Site 341 – Upstream view



Site 341 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2073 Site # 342

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M204
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2073 NID Map #: 104G.016 NID #: 20047 Reach #: 1.0 Site #: 342
 Field UTM (Z.E.N): .. Method: Site Lg: 50 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383223.6336197 Ref. Name:
 Date: 2007/10/12 Time: 10:50 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1462	STD	U	

COMMENTS

Section	Comments
CHANNEL	NCD
SITE CARD	NCD



Site 342 – Upstream view



Site 343 – Upstream view



Site 343 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2075 Site # 344

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M202
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 2075 NID Map #: 104G.016 NID #: 20049 Reach #: 1.0 Site #: 344
 Field UTM (Z.E.N): .. Method: Site Lg: 50 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383640.6336995 Ref. Name:
 Date: 2007/10/12 Time: 12:00 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1467	STD	D	

COMMENTS

Section	Comments
CHANNEL	NCD - >70% slope ds.
SITE CARD	NCD



Site 344 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 2076 Site # 345

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M201
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.016 ILP #: 2076 NID Map #: 104G.016 NID #: 20050 Reach #: 1.0 Site #: 345
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383745.6337089 Ref. Name:
 Date: 2007/10/12 Time: 12:04 Agency: C660 Crew: SF SC Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.45	0.75	0.90	0.70	0.65	1.00					0.74	Method I:	40.0	C	40.00
Wetted Width (m):	MS	0.30	0.60	0.65	0.40	0.40	0.70					0.51	Method II:		C	
Pool Depth (m):	MS	0.05	0.02	0.03	0.08	0.02	0.03					0.04				

Wb Depth: .2 .4 .4 Avg: 0.33 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	S	D	T	T	S	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: C RB RIP: C
 STG: MF STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 250 Method: S3
 Temp: 0 Method: P2 Turb.: T M L C Method: GE
 pH: 8.1 Method: GE
 Flood Signs: none

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 1.00 D (cm): 3.00 Morph: RPG DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC
 Confinement: FC
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	poor
Rearing Habitat	poor
Spawning Habitat	poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: DIG F: 1469	STD	U	
R: DIG F: 1470	STD	D	



Site 345 – Upstream view



Site 345 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # 104G.016 ILP # 2077 Site 346

COMMENTS	
Section	Comments
CHANNEL	S6 - up from crossing, S4 down from crossing. Sampling required. Marginal fish habitat.



Site 346 – Downstream view



Site 346 – Upstream view



Site 399 – Upstream view



Site 399 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4000 Site # 400

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 4000 NID Map #: 104G.036 NID #: 10200 Reach #: 1.0 Site #: 400
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382493.6361723 Ref. Name:
 Date: 2007/08/24 Time: 09:33 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			DISTURBANCE INDICATORS									
Islands:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Coupling:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confinement:			Bars: N <input type="checkbox"/> SIDE <input type="checkbox"/> DIAG <input type="checkbox"/> MID <input type="checkbox"/> SPAN <input type="checkbox"/> BR <input type="checkbox"/>									
FSZ: <input type="checkbox"/>												

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 1	STD	U	
R: 100 F: 2	STD	D	

COMMENTS

Section	Comments
CHANNEL	NCD - ~60m ds goes subsurface for ~10m along 30% grade. Returns ds in aw grade section. ~20% w/ defined channel @ rd crossing, cw-2m
SITE CARD	NCD



Site 400 – Upstream view



Site 400 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4001 Site # 401

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 4001 NID Map #: 104G.036 NID #: 10201 Reach #: 1.0 Site #: 401
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382481.6361649 Ref. Name:
 Date: 2007/08/24 Time: 10:06 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	0.90	1.20	0.48	0.59							0.79	Method I:	20.0	10.0	C	15.00
Wetted Width (m):	MS	0.90	0.91	0.48	0.59							0.72	Method II:			C	
Pool Depth (m):	MS	0.07	0.05									0.06					

Wb Depth: .1 .1 Avg: 0.10 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: NS

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	N	T	N	D	S
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%

INSTREAM VEG: N A M V

LWD: F DIST: C

LB SHP: S

Texture: F G C B R A

RIP: M

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: M

STG: MF

WATER

EMS: Temp: 6 Method: T3 Req #: Cond.: 200 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 0.13 D (cm): 0.11 Morph: RPG DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: OC
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	none
Rearing Habitat	poor
Spawning Habitat	poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3	STD	U	taken ~10m ds rd crossing
R: 100 F: 4	STD	D	taken ~10m ds rd crossing



Site 401 – Upstream view



Site 401 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4002 Site # 402

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: _____ Local Name: _____
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4002 NID Map #: 104G.036 NID #: 10202 Reach #: 1.0 Site #: 402
 Field UTM (Z.E.N): .. Method: _____ Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382464.6361639 Ref. Name: _____
 Date: 2007/08/24 Time: 10:36 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %			Mtd	Avg
Channel Width (m):	MS	0.58	0.61	0.29	0.93	0.61						0.60	Method I:	19.0	14.0	C	16.50
Wetted Width (m):	MS	0.58	0.61	0.29	1.10	0.69						0.65	Method II:			C	
Pool Depth (m):	MS	0.16	0.10									0.13					

Wb Depth: Avg: 0.10 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	D	T	T	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: C RB RIP: C
 STG: YF RB STG: YF

LWD: NS DIST: NS
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: YF

WATER

EMS: _____ Req #: _____
 Temp: 6 Method: T3 Cond.: 210 Method: S3
 pH: _____ Method: P2 Turb.: T M L C Method: GE
 Flood Signs: _____ Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: NA O1 B1 B2 B3 D1 D2 D3
 D95: 5.50 D (cm): 5.50 Morph: RPG DISTURBANCE INDICATORS
 Pattern: TM C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	not specified
Rearing Habitat	poor
Spawning Habitat	good

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 5 STD		U	taken above rd crossing
R: 100 F: 6 STD		D	taken below rd crossing

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	4002	402

COMMENTS	
Section	Comments
CHANNEL	S6 - good flow in channel. Steady open channel, branched from another channel located ~20m from rd crossing. Multiple braids from main channel through slide area. Good gravels for spawning, limited rearing. Site 403 on another branch from same stream us
SITE CARD	some measurements missing (ph, additional stream widths)



Site 402 – Upstream view



Site 402 – Downstream view



Site 402 – Upstream view



Site 403 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4002 Site # 403

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: _____ Local Name: _____
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4002 NID Map #: 104G.036 NID #: 10203 Reach #: 1.0 Site #: 403
 Field UTM (Z.E.N): .. Method: _____ Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382456.6361619 Ref. Name: _____
 Date: 2007/08/24 Time: 11:05 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.66	0.95	0.94	0.68							0.81		Method I: 13.5	C	13.50
Wetted Width (m):	MS	0.88	0.91	0.98	0.62							0.85		Method II:		C
Pool Depth (m):	MS	0.03	0.11									0.07				

Wb Depth: Avg: 0.10 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	S	N	S	T	D	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: INIT

LWD: F DIST: C
 LB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: INIT

WATER

EMS: Temp: 6 Method: T3 Req #: _____ Cond.: 200 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 0.07 D (cm): 0.07 Morph: RPG Morph: RPG
 Pattern: TM DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Rearing Habitat	poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 7	STD	U	
R: 100 F: 8	STD	D	

COMMENTS

Section	Comments

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	4002	403

COMMENTS	
Section	Comments
CHANNEL	S6 - 13.5% below from same water source as site 402 in slide area. Frequently flows under wood debris and root woods. Poor for rearing. Good gravel but access impaired by flow under root systems and shallow depths. Immediately us rd xing creek branches.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4003 Site # 404

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: #131
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4003 NID Map #: 104G.036 NID #: 10204 Reach #: 1.0 Site #: 404
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382418.6361572 Ref. Name:
 Date: 2007/08/24 Time: 11:56 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.46	0.83	0.82	0.20	0.57	0.39					0.54	Method I:	18.0	C	18.00
Wetted Width (m):	MS	0.55	0.38	0.82	0.28	0.57	0.39					0.50	Method II:		C	
Pool Depth (m):	MS	0.03	0.07	0.06								0.05				

Wb Depth: .1 Avg: 0.10 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	N	T	T	D	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V

LWD: F DIST: C
 LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: M RB RIP: M
 STG: INIT STG: INIT

WATER

EMS: Req #: Method: T3 Cond.: 190 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: F Subdom: NA O1 B1 B2 B3 D1 D2 D3
 D95: 0.01 D (cm): 0.01 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 10	STD	U	at rd crossing
R: 100 F: 9	STD	D	at rd crossing

COMMENTS

Section	Comments
CHANNEL	S6 - still in slide area, above road crossing spreads into flat mud area and goes subsurface.



Site 404 – Downstream view



Site 404 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4004 Site # 405

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4004 NID Map #: 104G.036 NID #: 10205 Reach #: 1.0 Site #: 405
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382414.6361567 Ref. Name:
 Date: 2007/08/24 Time: 12:15 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	0.48										0.48	Method I:	12.0	C	12.00
Wetted Width (m):	MS	0.27										0.27	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 11	STD	D	taken ds rd crossing
R: 100 F: 12	STD	U	taken at rd crossing

COMMENTS

Section	Comments
CHANNEL	NCD - goes subsurface ~20m us rd crossing. Flows for 30m then goes under large mass woody debris and spreads out.
SITE CARD	NCD



Site 405 – Downstream view



Site 405 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4005 Site # 406

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4005 NID Map #: 104G.036 NID #: 10205 Reach #: 1.0 Site #: 406
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382399.6361561 Ref. Name:
 Date: 2007/08/24 Time: 12:50 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 13	STD	U	at road crossing

COMMENTS

Section	Comments
CHANNEL	NCD - us subsurface, ds rd intermittent underground and under logs.
SITE CARD	NCD



Site 406 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4006 Site # 407

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: _____ Local Name: _____
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4006 NID Map #: 104G.036 NID #: 10207 Reach #: 1.0 Site #: 407
 Field UTM (Z.E.N): .. Method: _____ Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382390.6361528 Ref. Name: _____
 Date: 2007/08/24 Time: 13:01 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	1.90	1.33									1.62	Method I:	13.5	C	13.50
Wetted Width (m):	MS	1.13	0.95									1.04	Method II:		C	
Pool Depth (m):	MS	0.13										0.13				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	N	N	S	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: SHR

LWD: F DIST: C
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: SHR

WATER

EMS: _____ Req #: _____
 Temp: 7 Method: T3 Cond.: 200 Method: S3
 pH: _____ Method: P2 Turb.: T M L C Method: GE
 Flood Signs: _____ Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 2.00 D (cm): 2.00 Morph: RPG
 Pattern: IR DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Rearing Habitat	poor
Spawning Habitat	poor
OverWinter Habitat	poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 14	STD	U	taken at rd crossing
R: 100 F: 15	STD	D	taken at rd crossing

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	4006	407

COMMENTS	
Section	Comments
CHANNEL	S6 - heavy avulsions rarely confined, only 2 measurements possible in site area. Gravel and fines, shallow pools. In slide area still, though some mature trees still standing.



Site 407 – Upstream view



Site 407 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4007 Site # 408

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4007 NID Map #: 104G.036 NID #: 10208 Reach #: 1.0 Site #: 408
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382296.6361414 Ref. Name:
 Date: 2007/08/24 Time: 13:37 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:	12.0	C	12.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			DISTURBANCE INDICATORS									
Islands:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Coupling:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Confinement:			Bars: N <input type="checkbox"/> SIDE <input type="checkbox"/> DIAG <input type="checkbox"/> MID <input type="checkbox"/> SPAN <input type="checkbox"/> BR <input type="checkbox"/>									
FSZ: <input type="checkbox"/>												

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 16	STD	U	at road crossing

COMMENTS

Section	Comments
CHANNEL	NCD - goes subsurface at road crossing for 2m, then again 30m ds for another 3m, continues w/intermittent surface flow ds.
SITE CARD	NCD



Site 408 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4008 Site # 410

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4008 NID Map #: 104G.036 NID #: 10210 Reach #: 1.0 Site #: 410
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382280.6361401 Ref. Name:
 Date: 2007/08/24 Time: 12:00 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: 120 Method: S3
 Temp: 6 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 19	STD	U	at road crossing

COMMENTS

Section	Comments
CHANNEL	NCD - same creek as site 409, branch is NCD, goes underground.
SITE CARD	NCD



Site 409 – Upstream view



Site 409 – Downstream view



Site 410 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4009 Site # 411

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4009 NID Map #: 104G.036 NID #: 10211 Reach #: 1.0 Site #: 411
 Field UTM (Z.E.N): Method: Site Lg: 60 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382265.6361358 Ref. Name:
 Date: 2007/08/24 Time: 14:20 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 20	STD	U	taken 5m ds rd crossing

COMMENTS

Section	Comments
CHANNEL	NCD - seeps out of ground at rd crossing, open channel for ~45m ds then intermittent subsurface through soil. ~10m ds site, and ww=20cm.
SITE CARD	NCD



Site 411 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4010 Site # 412

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4010 NID Map #: 104G.036 NID #: 10212 Reach #: 1.0 Site #: 412
 Field UTM (Z.E.N): Method: Site Lg: 50 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382124.6361160 Ref. Name:
 Date: 2007/08/24 Time: 14:52 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Islands:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coupling:												
Confinement:												
FSZ: <input type="checkbox"/>			Bars: N <input type="checkbox"/> SIDE <input type="checkbox"/> DIAG <input type="checkbox"/> MID <input type="checkbox"/> SPAN <input type="checkbox"/> BR <input type="checkbox"/>									

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 21	STD	X	dry

COMMENTS

Section	Comments
CHANNEL	NCD - dry at time of survey. Scoured siols indicate wide seepage that frequently goes subsurface.
SITE CARD	NCD



Site 412 – Across view of dry channel

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4011 Site # 413

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: #137
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4011 NID Map #: 104G.036 NID #: 10213 Reach #: 1.0 Site #: 413
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382031.6361027 Ref. Name:
 Date: 2007/08/24 Time: 15:10 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	MS	1.19	0.41	0.60	0.44	0.79	0.71					0.69		Method I: 17.0	16.0	C	16.50
Wetted Width (m):	MS	1.10	0.66	0.63	0.83	0.80	1.50					0.92		Method II:		C	
Pool Depth (m):	MS	0.16	0.18	0.07								0.14					

Wb Depth: .2 .2 .2 Avg: 0.20 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	D	S	S	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: C
 LB SHP: S
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 140 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: G Subdom: NA O1 B1 B2 B3 D1 D2 D3
 D95: 7.00 D (cm): 0.24 Morph: RPC DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: FC
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
OverWinter Habitat	poor
Rearing Habitat	poor
Spawning Habitat	good

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 22	STD	U	taken ds at rd crossing
R: 100 F: 23	STD	D	taken us at rd crossing

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	4011	413

COMMENTS	
Section	Comments
CHANNEL	S6 - channel had good flow at time of survey. Frequently runs below surface but w/enough power to have an underground channel. Still may be migratory barrier. Good clean gravels suitable for spawning, good LWD cover.



Site 413 – Upstream view



Site 413 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4012 Site # 414

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: #138
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4012 NID Map #: 104G.036 NID #: 10214 Reach #: 1.0 Site #: 414
 Field UTM (Z.E.N): Method: Site Lg: 30 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381920.6360824 Ref. Name:
 Date: 2007/08/24 Time: 15:41 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 24	STD	U	view us taken ~6m ds of road crossing

COMMENTS

Section	Comments
CHANNEL	NCD - subsurface above rd for ~5m, comes out 4m ds from rd crossing, flows for 10m then intermittent/subsurface flow.
SITE CARD	NCD



Site 414 – Upstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	4013	415

COMMENTS	
Section	Comments
CHANNEL	S6 - some gradient 20+%, frequently goes under root systems of trees and shrubs. Fair spawning gravels dominate. Cover high, poor for holding, but abundant LWD and SWD. Mig access poor. No defined step pools us rd crossing creek is spread out and branches



Site 415 – Upstream view



Site 415 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4014 Site 416

HABITAT QUALITY						
Name			Comments			
OverWinter Habitat			good			
Spawning Habitat			good			
Rearing Habitat			good			
PHOTOS						
Photo		Foc Lg		Dir		Comments
R:	100	F:	27	STD		U
R:	100	F:	28	STD		D
R:	100	F:	29	STD		NS feature
COMMENTS						
Section			Comments			
CHANNEL			S6 - 25m ds crossing creek goes underground for 7m. Under moss and tree roots over low gradient. Likely barrier to us mig. Though good flows may provide underground connectivity. Good pools, gravel and LWD cover. Several high drops ~.4 barrier to us mig.			
SITE CARD			morphology not recorded			



Site 416 – Upstream view



Site 416 – Feature falls



Site 416 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4015 Site # 417

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: #141
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4015 NID Map #: 104G.036 NID #: 10219 Reach #: 1.0 Site #: 417
 Field UTM (Z.E.N): .. Method: Site Lg: 20 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381626.6360439 Ref. Name:
 Date: 2007/08/24 Time: 17:07 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material:	Dominant:	Subdom:	O1	B1	B2	B3	D1	D2	D3			
D95:	D (cm):	Morph:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Pattern:			C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
Islands:			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coupling:												
Confinement:												
FSZ: <input type="checkbox"/>			Bars: N <input type="checkbox"/>	SIDE <input type="checkbox"/>	DIAG <input type="checkbox"/>	MID <input type="checkbox"/>	SPAN <input type="checkbox"/>	BR <input type="checkbox"/>				

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 30	STD	X	at rd crossing

COMMENTS

Section	Comments
CHANNEL	NCD - seep goes into ground at crossing
SITE CARD	NCD



Site 417 – Across view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4016 Site # 418

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: #142
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 4016 NID Map #: 104G.036 NID #: 10220 Reach #: 1.0 Site #: 418
 Field UTM (Z.E.N): .. Method: Site Lg: 25 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381590.6360382 Ref. Name:
 Date: 2007/08/24 Time: 17:21 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 31	STD	NS	view ds NCD

COMMENTS

Section	Comments
CHANNEL	NCD
SITE CARD	NCD



Site 418 – Downstream at NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4017 Site 419

HABITAT QUALITY						
Name		Comments				
OverWinter Habitat		good				
Rearing Habitat		good				
Spawning Habitat		good				
PHOTOS						
Photo		Foc Lg		Dir	Comments	
R:	101	F:	2	STD	U	taken at road crossing
R:	101	F:	3	STD	D	taken at road crossing
COMMENTS						
Section		Comments				
CHANNEL		S4 default - followed ~350m to where it enters large creek, branched to 2 channels before confluence, barriers to juvenile and possible adults. Banks undercut, frequent pockets clean gravel, low gradient, grade at rd xing 3% below, 2% above				



Site 419 – Upstream view



Site 419 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4018 Site # 420

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: _____ Local Name: _____
 Watershed Code: 000-000000-00000-00000-00000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 4018 NID Map #: 104G.036 NID #: 10224 Reach #: 1.0 Site #: 420
 Field UTM (Z.E.N): .. Method: _____ Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381032.6359884 Ref. Name: _____
 Date: 2007/08/25 Time: 10:10 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):		0.89	1.34	0.91								1.05		Method I: 5.0	C	5.00
Wetted Width (m):												0.00		Method II:		
Pool Depth (m):												0.00				

Wb Depth: .3 Avg: 0.30 Method: MS Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	N	N	N	D	S
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 3 41-70%
 INSTREAM VEG: N A M V
 RB SHP: S Texture: F G C B R A
 RIP: M STG: MF

LWD: N DIST: NA
 LB SHP: S Texture: F G C B R A
 RIP: M STG: MF

WATER

EMS: _____ Req #: _____
 Temp: _____ Method: _____ Cond.: _____ Method: _____
 pH: _____ Method: _____ Turb.: T M L C Method: GE
 Flood Signs: _____ Method: _____

MORPHOLOGY

Bed Material: Dominant: G Subdom: NA O1 B1 B2 B3 D1 D2 D3
 D95: 15.0 D (cm): 15.00 Morph: RPG DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: FC
 FSZ: Bars: N SIDE DIAG MID SPAN BR

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4	STD	NS	goat trail along and crossing creek
R: 101 F: 5	STD	NS	wool in branches along goat trail
R: 101 F: 6	STD	U	
R: 101 F: 7	STD	D	

COMMENTS

Section	Comments
CHANNEL	S6 - mossy channel, ephemeral flow probably every 2-3 years.



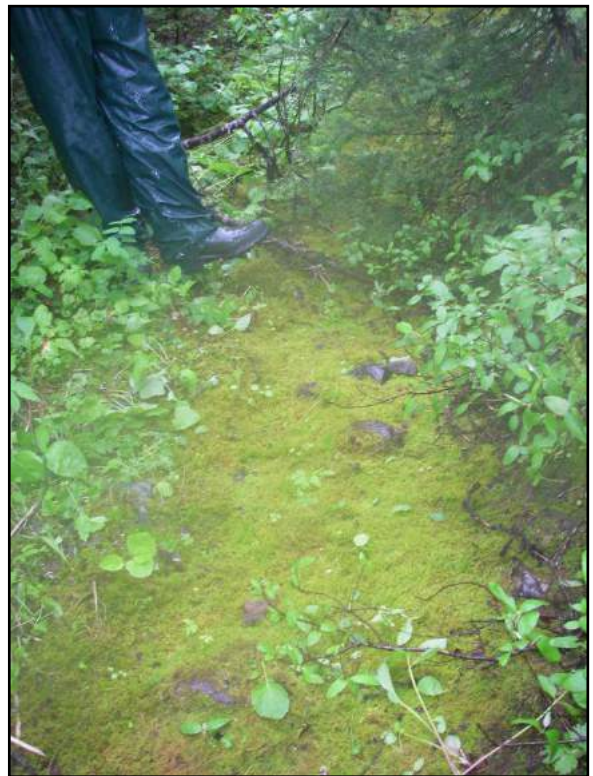
Site 420 – Goat trail along and crossing creek



Site 420 – Wool in branches



Site 420 – Upstream view



Site 420 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4019 Site # 421

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.036 ILP #: 4019 NID Map #: 104G.036 NID #: 10225 Reach #: 1.0 Site #: 421
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381000.6359858 Ref. Name:
 Date: 2007/08/25 Time: 10:12 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE

INSTREAM VEG: N A M V

LWD: DIST:
 LB SHP: Texture: F G C B R A
 RIP: STG:

RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 8	STD	D	at road crossing

WILDLIFE

Group	Observations
MAM	goat trail and wool in branches noted along route

COMMENTS

Section	Comments
CHANNEL	NCD - no water, no evidence of high scouring flows. Abundant moss.

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.0	104G.036	4019	421

COMMENTS	
Section	Comments
SITE CARD	NCD



Site 421 – Downstream view

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.036 ILP # 4020 Site # 422

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: 104G.036 ILP #: 4020 NID Map #: 104G.036 NID #: 10226 Reach #: 1.0 Site #: 422
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.380977.6359829 Ref. Name:
 Date: 2007/08/25 Time: 10:23 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS											0.00	Method I:		C	0.00
Wetted Width (m):	MS											0.00	Method II:		C	
Pool Depth (m):	MS											0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #:
 Temp: Method: T3 Cond.: Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 9	STD	U	wide swale with wet depression across road route

COMMENTS

Section	Comments
CHANNEL	NCD
SITE CARD	NCD



Site 422 – Upstream view, wide swale with wet depression

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.016 ILP # 4021 Site # 423

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name:
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.016 ILP #: 4021 NID Map #: 104G.016 NID #: 10228 Reach #: 1.0 Site #: 423
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384862.6340351 Ref. Name:
 Date: 2007/08/26 Time: 17:11 Agency: C660 Crew: LT DD Fish Crd?: Incomplete:

CHANNEL

Mtd	width	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %			Mtd	Avg
Channel Width (m):												0.00	Method I:				0.00
Wetted Width (m):												0.00	Method II:				
Pool Depth (m):												0.00					

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: Texture: F G C B R A
 RB SHP: Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: Cond.: Method:
 Temp: Method: Turb.: T M L C Method: GE
 pH: Method:
 Flood Signs: Method:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

COMMENTS

Section	Comments
CHANNEL	NCD - no visible channel, devil's club swale 25% grade.
SITE CARD	NCD

FDIS Site Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.0 ILP Map # 104G.026 ILP # 1999 Site # 999

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: M70
 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: 104G.026 ILP #: 1999 NID Map #: 104G.026 NID #: 10101 Reach #: 1.0 Site #: 999
 Field UTM (Z.E.N): Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384824.6348405 Ref. Name:
 Date: 2007/08/16 Time: 09:35 Agency: C660 Crew: KM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS										0.00	Method I:		C	0.00
Wetted Width (m):	MS										0.00	Method II:		C	
Pool Depth (m):	MS										0.00				

Wb Depth: Avg: 0.00 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total:

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:							
Loc: P/S/O:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CROWN CLOSURE
 INSTREAM VEG: N A M V
 LB SHP: RB SHP:
 Texture: F G C B R A
 RIP: STG:

WATER

EMS: Req #: Method: T3 Cond.: Method: S3
 Temp: Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: Subdom: O1 B1 B2 B3 D1 D2 D3
 D95: D (cm): Morph: DISTURBANCE INDICATORS
 Pattern: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands:
 Coupling: Bars: N SIDE DIAG MID SPAN BR
 Confinement: FSZ:

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 101 F: 4066	STD	U	subsurface and overland flow.

COMMENTS

Section	Comments
CHANNEL	NCD - seepage with some overland flow at rc.
SITE CARD	NCD



Site 999 – Upstream view, subsurface and overland flow

**APPENDIX 3.1-2
FISH SAMPLING CARDS COMPLETED FOR
STREAM CROSSINGS ALONG THE PROPOSED
SCHAFT ACCESS ROUTE**

FDIS Fish Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.0 ILP Map #: 104G.016 ILP #: 1038

WATERBODY													
Gazetted Name:						Local: M42							
Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-0													
WS Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #: 104G.016				ILP #: 1038		Reach #: 1 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/08/21			To: 2007/08/21			Agency: C660		Crew: KM RS		Resample: <input type="checkbox"/>
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment			
139	104G.016	10146	9			GP3	EF	1	7	250	C		
A. GEAR SETTINGS													
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment						
139	EF	1	1	2007/08/21	12:45	2007/08/21	13:00						
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model		
139	EF	1	1	O	157	80.0	2.0	400	30	4	SR	LR-24	
FISH SUMMARY													
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment				
139	EF	1	1	NFC		0							
COMMENTS													
Section			Comments										
WATERBODY			shocked from mouth at mess cr to 29% barrier us of rc.										

FDIS Fish Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.0 ILP Map #: 104G.016 ILP #: 1042

WATERBODY

Gazetted Name: _____ Local: M45
 Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-0
 WS Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Waterbody ID: _____ ILP Map #: 104G.016 ILP #: 1042 Reach #: 1 -
 Project ID: 17415 Lake/Stream: S Lake From Date: _____

Fish Permit #: SM07-34821 Date: 2007/08/21 To: 2007/08/21 Agency: C660 Crew: KM RS Resample:

SITE / METHOD

Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment
143	104G.016	10149	9			GP3 EF 1			C	

A. GEAR SETTINGS

Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment
143	EF 1	1	2007/08/21	14:00	2007/08/21	14:20	

C. ELECTROFISHER SPECIFICATIONS

Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model
143	EF	1	1	O	87	50.0	1.0	250	30	4	SR LR-24

FISH SUMMARY

Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment
143	EF	1	1	NFC		0			

COMMENTS

Section	Comments
WATERBODY	shocked up from 50m ds of rc, really marginal habitat with steps up to .5m, lots of swd and moss.

FDIS Fish Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
 Reach #: 1.0 ILP Map #: 104G.026 ILP #: 1064

WATERBODY															
Gazetted Name:							Local: M57								
Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-0															
WS Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000															
Waterbody ID:							ILP Map #: 104G.026			ILP #: 1064		Reach #: 1 -			
Project ID: 17415							Lake/Stream: S			Lake From Date:					
Fish Permit #: SM07-34821				Date: 2007/08/14		To: 2007/08/14		Agency: C660		Crew: KM RS RD		Resample: <input type="checkbox"/>			
SITE / METHOD															
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment					
165	104G.026	10083	9			GP3 EF 1	6.5	387	C						
A. GEAR SETTINGS															
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment								
165	EF 1	1	2007/08/14	12:20	2007/08/14	12:45									
C. ELECTROFISHER SPECIFICATIONS															
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model				
165	EF	1	1	O	219	100.0	250	30	4	SR	LR-24				
FISH SUMMARY															
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment						
165	EF	1	1	RB	NS	1	132 132	R	caught in r1 not by rc.						
INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
165	EF	1	1	RB	132	33.9	U	U	FR	1	2				
COMMENTS															
Section			Comments												
WATERBODY			rb caught in WL @outlet of this stream. NFC in R-2 where rc is.												

FDIS Fish Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 Reach # 1.0 ILP Map # 104G.036 ILP # 1103

WATERBODY														
Gazetted Name:										Local: M84				
Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000														
WS Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000														
Waterbody ID:						ILP Map #: 104G.036				ILP #: 1103		Reach #: 1 -		
Project ID: 17415						Lake/Stream: S				Lake From Date:				
Fish Permit #: SM07-34821				Date: 2007/08/26			To: 2007/08/26			Agency: C660		Crew: LT DD		Resample: <input type="checkbox"/>
SITE / METHOD														
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd				MTD/NO	Temp	Cond	Turbid	Comment			
204	104G.036	20061	9				GP3	EF	1	6	190	C		
A. GEAR SETTINGS														
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment							
204	EF	1	2007/08/26	12:30	2007/08/26	13:30								
C. ELECTROFISHER SPECIFICATIONS														
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model			
204	EF	1	1	O	160	280.0	0.8	500	40	2	SR	LR-24		
FISH SUMMARY														
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment					
204	EF	1	1	NFC		0								
COMMENTS														
Section			Comments											
WATERBODY			followed 280m ds from rd xing grad ranged from 10-18% at 200m ds grade increased to 30% barrier. Limited pools along assessment length. Poor habitat. Frequent temporary barriers to juv migration.											

FDIS Fish Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.0 ILP Map #: 104G.036 ILP #: 1133

WATERBODY

Gazetted Name: _____ Local: M110
 Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-0
 WS Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Waterbody ID: _____ ILP Map #: 104G.036 ILP #: 1133 Reach #: 1 -
 Project ID: 17415 Lake/Stream: S Lake From Date: _____

Fish Permit #: SM07-34821 Date: 2007/08/27 To: 2007/08/27 Agency: C660 Crew: LT DD Resample:

SITE / METHOD

Site#	NID Map	NID #	UTM:Zone/East/North/Mthd				MTD/NO	Temp	Cond	Turbid	Comment
237	104G.036	20056	9			GP3	EF 1	5	100	C	

A. GEAR SETTINGS

Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment
237	EF 1	1	2007/08/27	16:49	2007/08/27	17:15	

C. ELECTROFISHER SPECIFICATIONS

Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model
237	EF	1	1	O	98	200.0	1.3	500	40	2	SR LR-24

FISH SUMMARY

Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment
237	EF	1	1	NFC		0			

COMMENTS

Section	Comments
WATERBODY	no gra >19% found 20m ds at rc. Clear access to creek below @200m. 4 tribs at 15, 80, 120 and 150m, trib at 15m is ILP1135

FDIS Fish Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.0 ILP Map #: 104G.036 ILP #: 1135

WATERBODY													
Gazetted Name:										Local: M112			
Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-0													
WS Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000													
Waterbody ID:					ILP Map #: 104G.036				ILP #: 1135		Reach #: 1 -		
Project ID: 17415					Lake/Stream: S				Lake From Date:				
Fish Permit #: SM07-34821				Date: 2007/08/27		To: 2007/08/27		Agency: C660		Crew: LT DD		Resample: <input type="checkbox"/>	
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment			
239	104G.036	20057	9			GP3	EF 1	5.5	110	C			
A. GEAR SETTINGS													
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment						
239	EF 1	1	2007/08/27	17:40	2007/08/27	18:00							
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model		
239	EF	1	1	O	18	25.0	0.7	500	40	2	SR LR-24		
FISH SUMMARY													
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment				
239	EF	1	1	NFC		0							
COMMENTS													
Section			Comments										
WATERBODY			joins 237 25m ds. Ef 18sec - NFC if good gradient, is accessible										

FDIS Fish Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000 Reach # 1.0 ILP Map # 104G.016 ILP # 2000

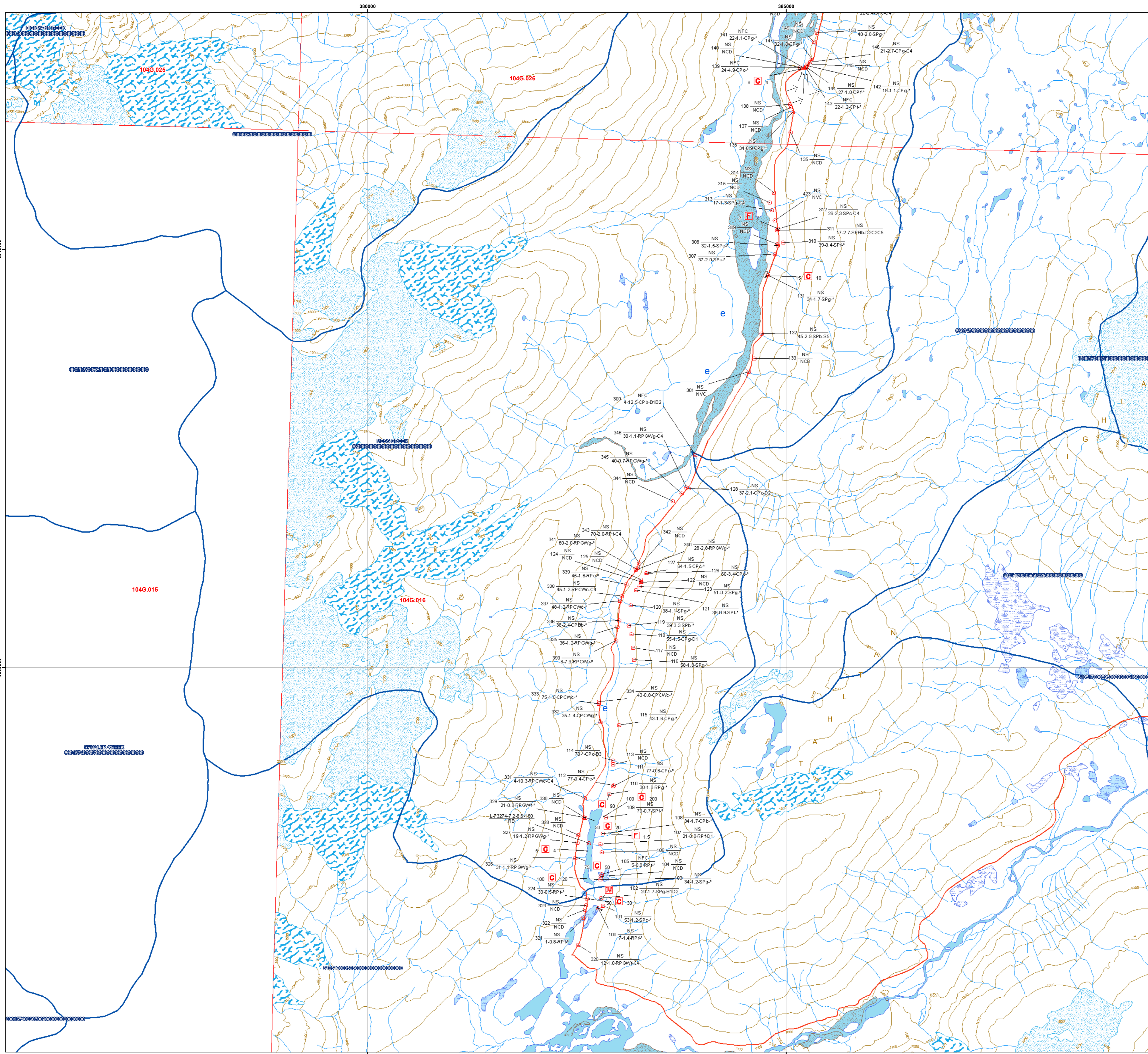
WATERBODY													
Gazetted Name:								Local: M27 Arctic Cr.					
Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-0													
WS Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #: 104G.016				ILP #: 2000		Reach #: 1 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/08/10			To: 2007/08/10			Agency: C660		Crew: SH KM RD		Resample: <input type="checkbox"/>
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd				MTD/NO	Temp	Cond	Turbid	Comment		
300	104G.016	20001	9			GP3	EF	1	4	50	C		
A. GEAR SETTINGS													
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment						
300	EF	1	2007/08/10	08:00	2007/08/10	08:30							
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model		
300	EF	1	1	O	540	100.0	2.0	780	30	4	SR	LR-24	
FISH SUMMARY													
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment				
300	EF	1	1	NFC		0							

FDIS Fish Card

Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.0 ILP Map #: 104G.036 ILP #: 1111

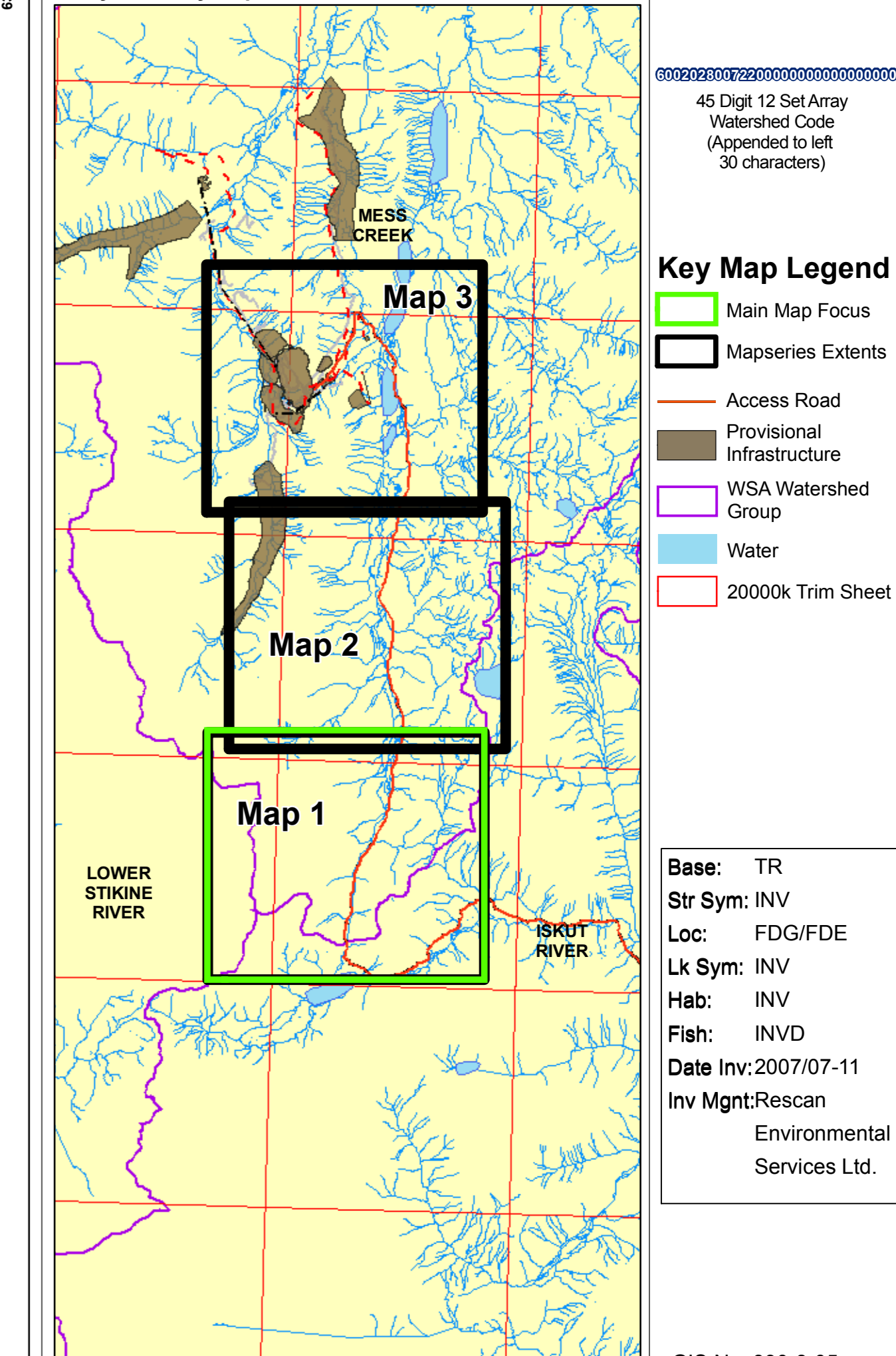
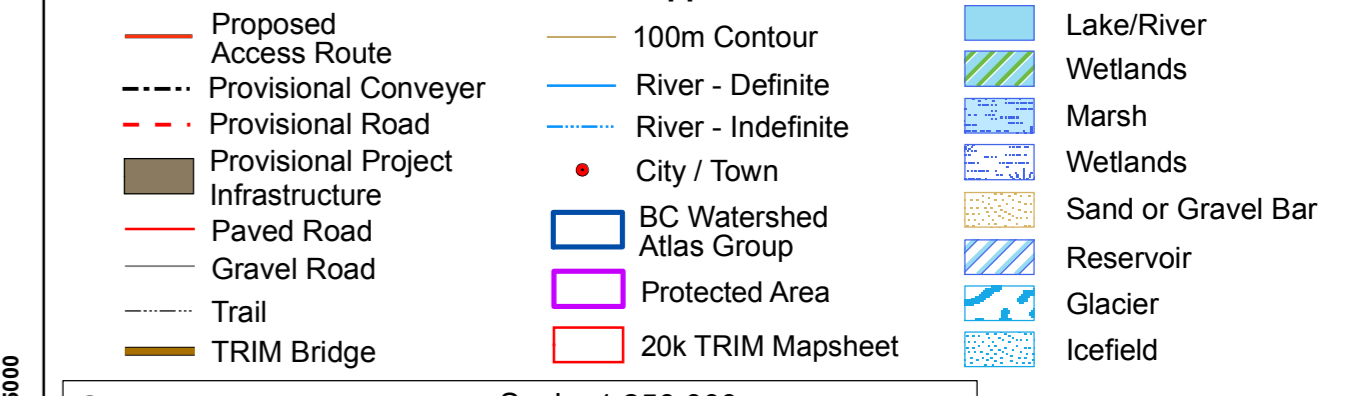
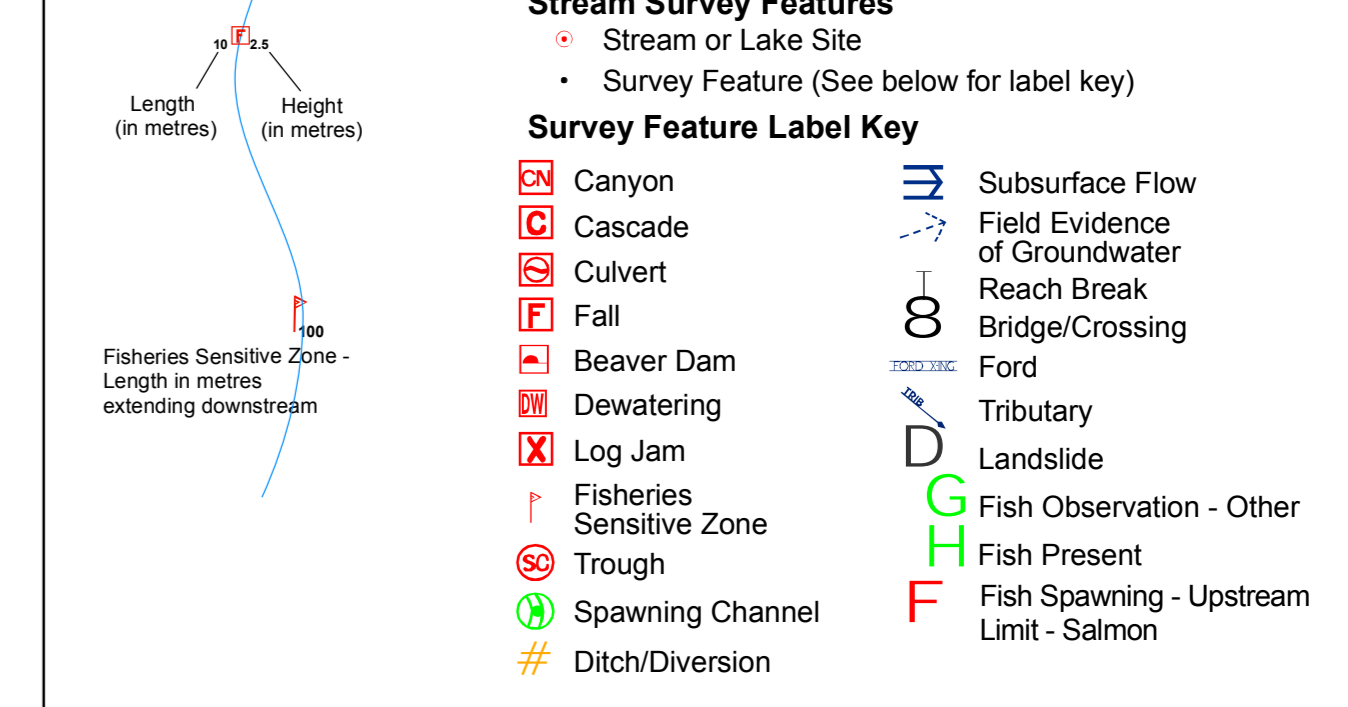
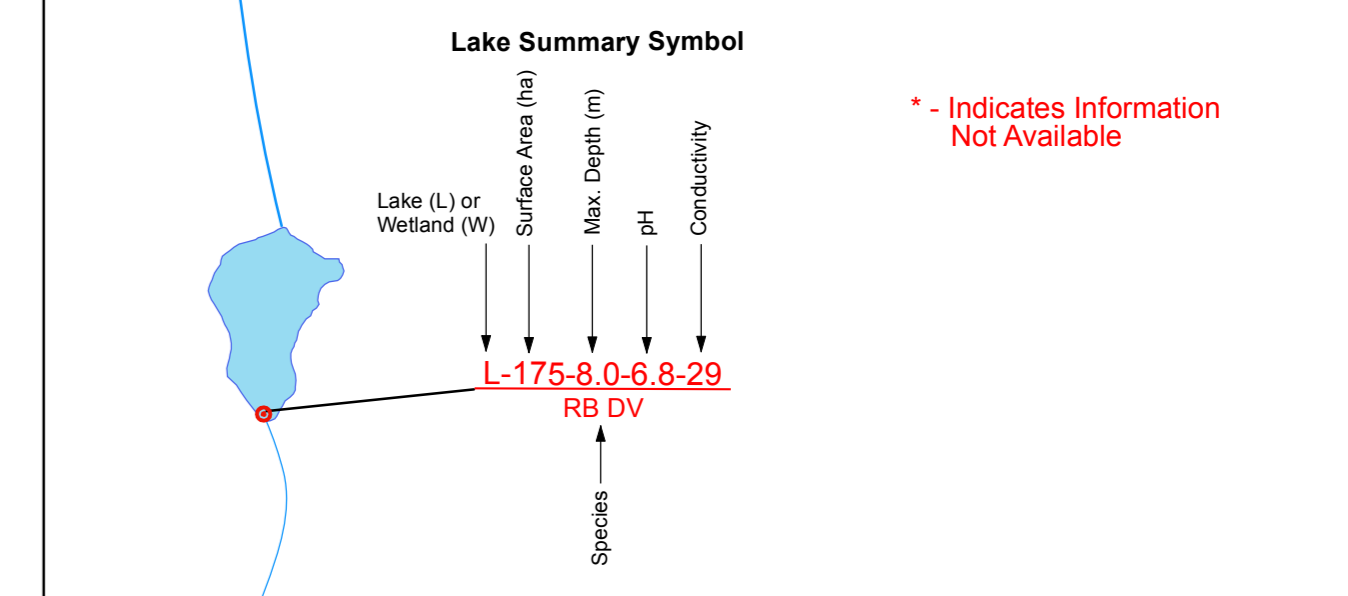
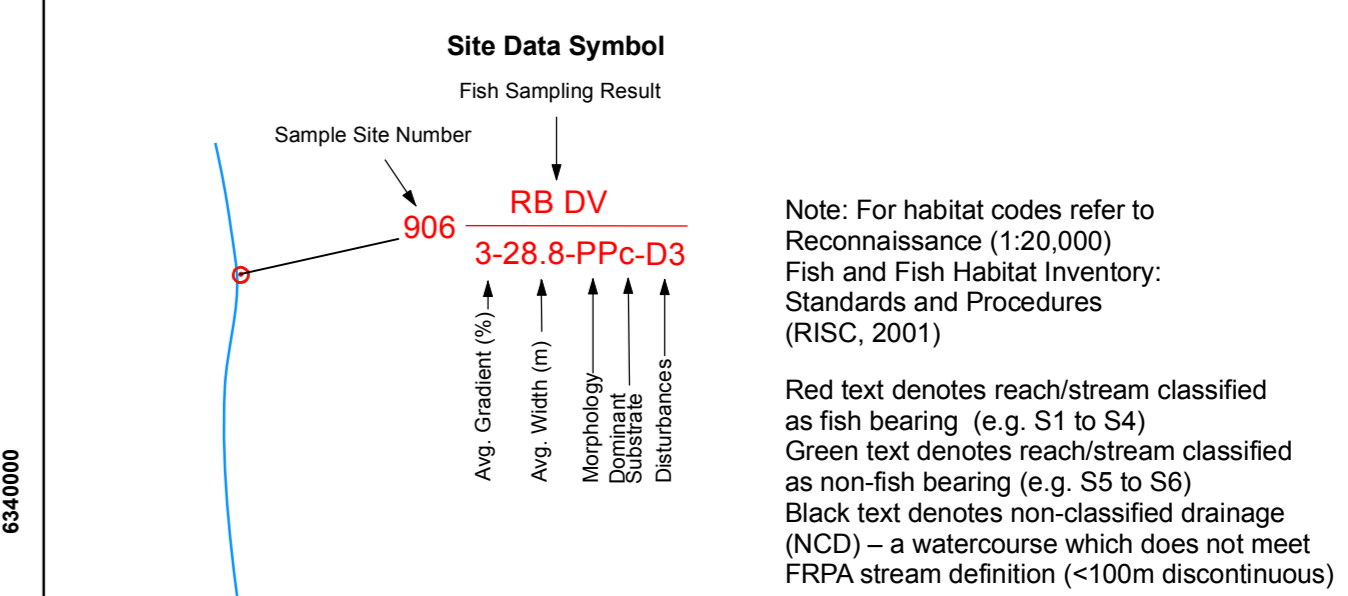
WATERBODY													
Gazetted Name:						Local: M89							
Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-0													
WS Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #: 104G.036				ILP #: 1111		Reach #: 1 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/08/27			To: 2007/08/27			Agency: C660		Crew: LT DD		Resample: <input type="checkbox"/>
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment			
312	104G.036	20054	9			GP3	EF	1	6	160	C		
A. GEAR SETTINGS													
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment						
312	EF	1	2007/08/27	13:10	2007/08/27	13:45							
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model		
312	EF	1	1	O	37	100.0	1.0	400	40	2	SR	LR-24	
FISH SUMMARY													
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment				
312	EF	1	1	NFC		0							
COMMENTS													
Section			Comments										
WATERBODY			poor habitat not much to EF, found dead fish at rc, rotten and 1/2 body missing.										

**APPENDIX 3.1-3
FDIS 1:20,000 FISH HABITAT MAPS FOR
STREAM CROSSINGS ALONG THE PROPOSED
SCHAFT ACCESS ROUTE**



Copper Fox Metals – Proposed Development Detailed Fish and Fish Habitat Assessment Map, 2007

Appendix: 3.1-3 Map: 1 of 3
 Scale: 1:20,000
 Contour Interval: 100 m Projection: UTM9, NAD83
 DATE: January 6, 2008
 COMPANY: Rescan Environmental Services Ltd.

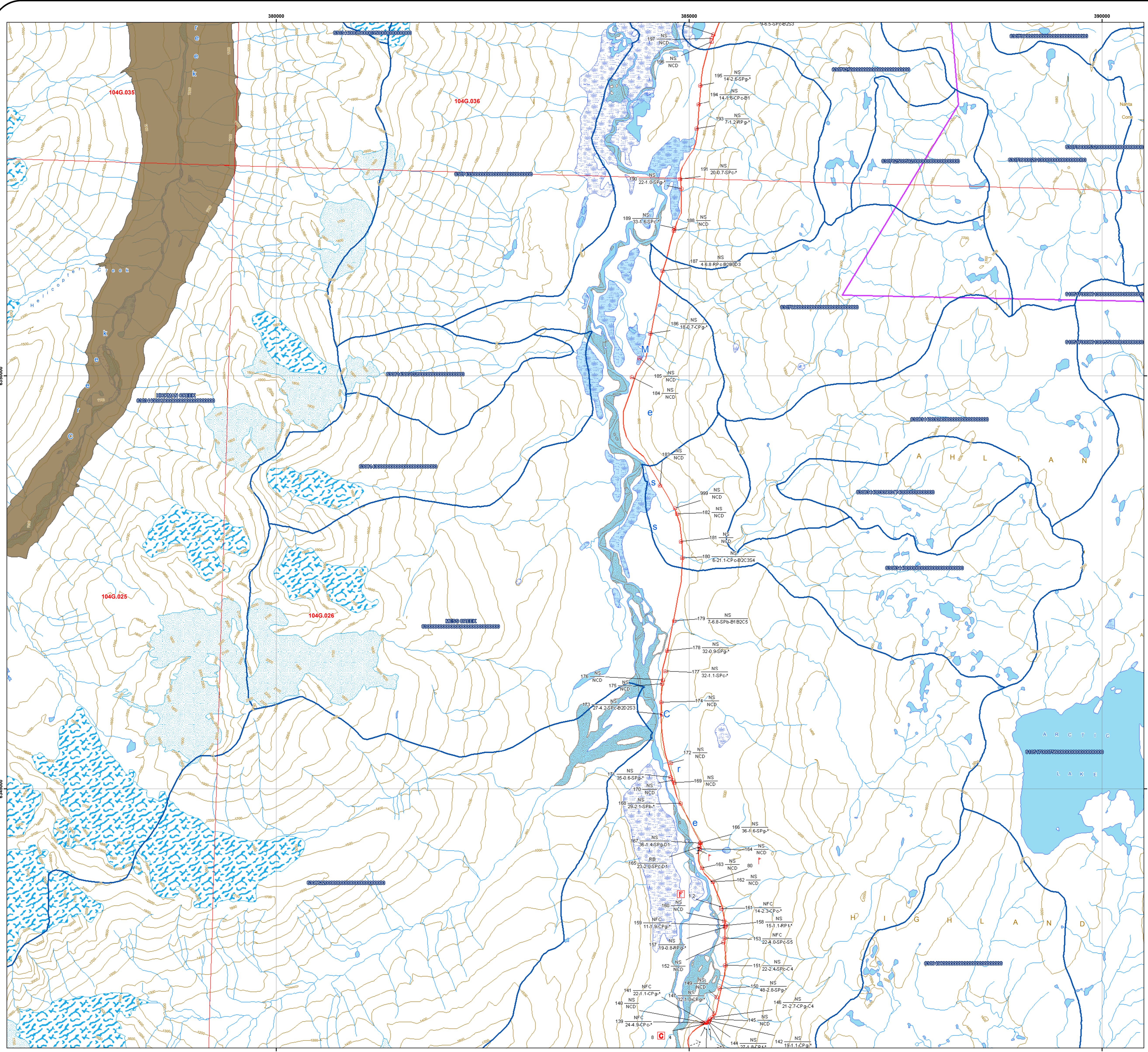


Fish Species/Sampling Codes

LT Lake Trout (<i>Salvelinus namaycush</i>)	MW Mountain Whitefish (<i>Prosopium williamsoni</i>)	NS Not Sampled
BT Bull Trout (<i>Salvelinus confluentus</i>)	GR Arctic Grayling (<i>Thymallus arcticus</i>)	NFC No Fish Caught
RB Rainbow Trout (<i>Oncorhynchus mykiss</i>)	LSU Longnose Sucker (<i>Catostomus catostomus</i>)	NVC No Visible Channel
	NCD Non Classified Drainage	

Disclaimer

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Copper Fox Metals – Proposed Development Detailed Fish and Fish Habitat Assessment Map, 2007

Appendix: 3.1-3 Map: 2 of 3
 Scale: 1:20,000
 Contour Interval: 100 m Projection: UTM9, NAD83
 DATE: January 6, 2008
 COMPANY: Rescan Environmental Services Ltd.

0 0.5 1 1.5 2 Kilometres

Site Data Symbol

Fish Sampling Result

Sample Site Number: 906
 Fish Species: RB DV
 Habitat Code: 3-28.8-PPc-D3

Note: For habitat codes refer to Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures (RISC, 2001)

Red text denotes reach/stream classified as fish bearing (e.g. S1 to S4)
 Green text denotes reach/stream classified as non-fish bearing (e.g. S5 to S6)
 Black text denotes non-classified drainage (NCD) – a watercourse which does not meet FRPA stream definition (<100m discontinuous)

Lake Summary Symbol

Lake (L) or Wetland (W)
 Surface Area (ha)
 Max. Depth (m)
 pH
 Conductivity

Species: RB DV

* - Indicates Information Not Available

Stream Survey Features

- Stream or Lake Site
- Survey Feature (See below for label key)

Survey Feature Label Key

- Canyon
- Cascade
- Culvert
- Fall
- Beaver Dam
- Dewatering
- Log Jam
- Fisheries Sensitive Zone
- Trough
- Spawning Channel
- Ditch/Diversion
- Subsurface Flow
- Field Evidence of Groundwater
- Reach Break
- Bridge/Crossing
- Ford
- Tributary
- Landslide
- Fish Observation - Other
- Fish Present
- Fish Spawning - Upstream Limit - Salmon

Other Mapped Features

- Proposed Access Route
- Provisional Conveyer
- Provisional Road
- Provisional Project Infrastructure
- Paved Road
- Gravel Road
- Trail
- TRIM Bridge
- 100m Contour
- River - Definite
- River - Indefinite
- City / Town
- BC Watershed
- Atlas Group
- Protected Area
- 20k TRIM Mapsheet
- Lake/River
- Wetlands
- Marsh
- Wetlands
- Sand or Gravel Bar
- Reservoir
- Glacier
- Icefield

Fish Species/Sampling Codes

LT Lake Trout (<i>Salvelinus namaycush</i>)	MW Mountain Whitefish (<i>Prosopium williamsoni</i>)	NS Not Sampled
BT Bull Trout (<i>Salvelinus confluentus</i>)	GR Arctic Grayling (<i>Thymallus arcticus</i>)	NFC No Fish Caught
RB Rainbow Trout (<i>Oncorhynchus mykiss</i>)	LSU Longnose Sucker (<i>Catostomus catostomus</i>)	NVC No Visible Channel
		NCD Non Classified Drainage

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Study Area Key Map Scale: 1:250,000

45 Digit 12 Set Array Watershed Code (Appended to left 30 characters)

Key Map Legend

- Main Map Focus
- Mapseries Extents
- Access Road
- Provisional Infrastructure
- WSA Watershed Group
- Water
- 20000k Trim Sheet

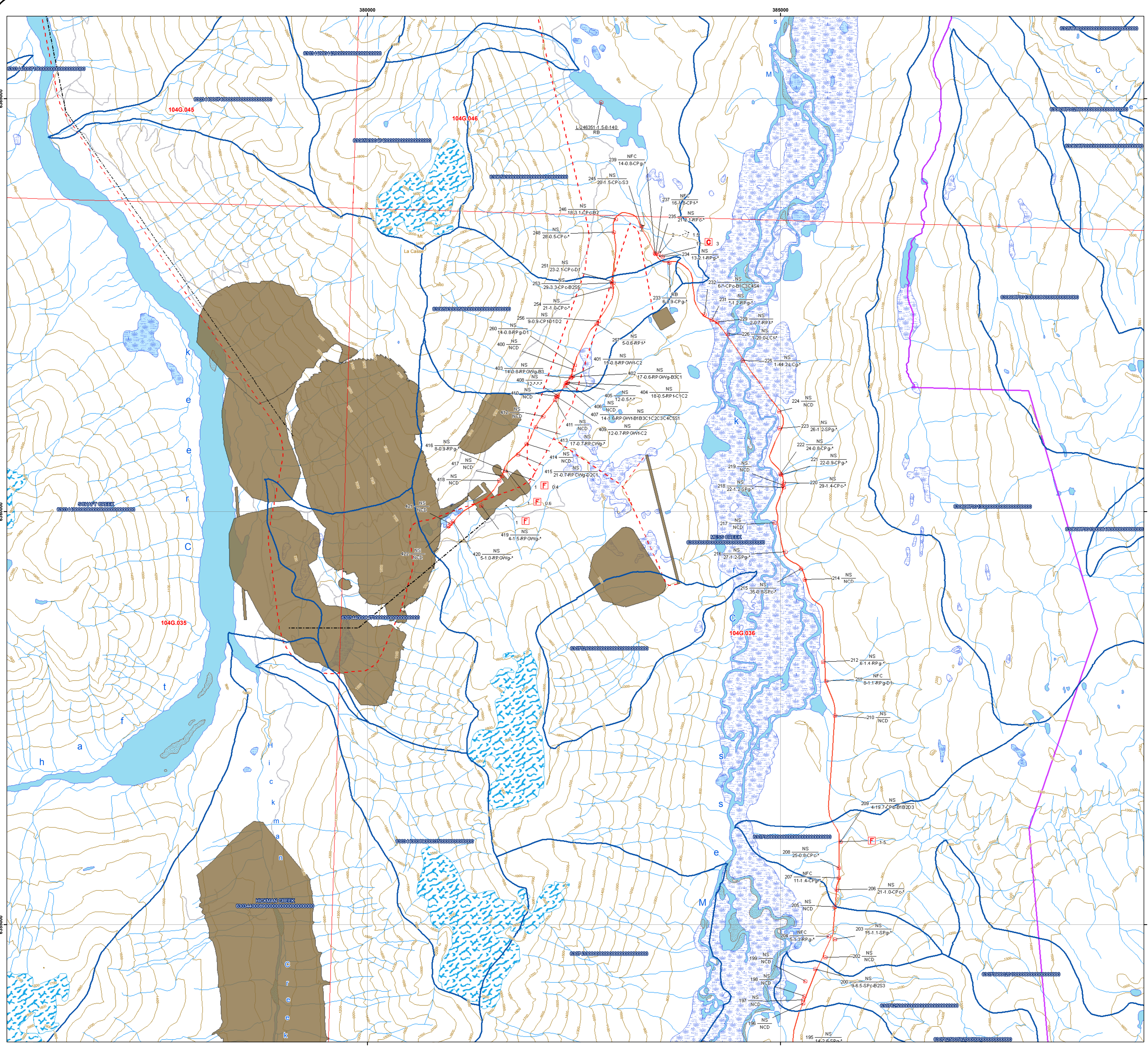
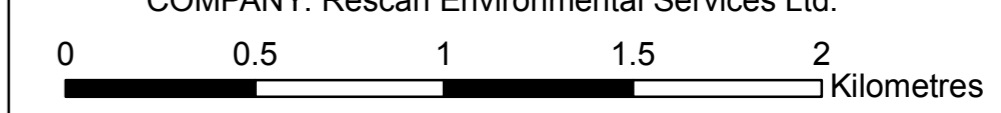
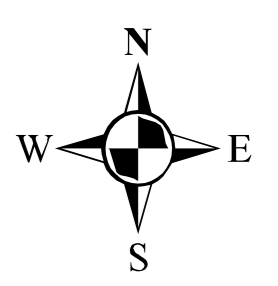
Map 1
Map 2
Map 3

Base: TR
Str Sym: INV
Loc: FDG/FDE
Lk Sym: INV
Hab: INV
Fish: INV/D
Date Inv: 2007/07-11
Inv Mgt: Rescan Environmental Services Ltd.

GIS No. 830-8-05b

Copper Fox Metals – Proposed Development Detailed Fish and Fish Habitat Assessment Map, 2007

Appendix: 3.1-3 Map: 3 of 3
 Scale: 1:20,000
 Contour Interval: 100 m Projection: UTM9, NAD83
 DATE: January 6, 2008
 COMPANY: Rescan Environmental Services Ltd.



Site Data Symbol

Fish Sampling Result

Sample Site Number: 906

RB DV
3-28.8-PPc-D3

Note: For habitat codes refer to Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures (RISC, 2001)

Red text denotes reach/stream classified as fish bearing (e.g. S1 to S4)
 Green text denotes reach/stream classified as non-fish bearing (e.g. S5 to S6)
 Black text denotes non-classified drainage (NCD) – a watercourse which does not meet FRPA stream definition (<100m discontinuous)

Lake Summary Symbol

Lake (L) or Wetland (W)

Surface Area (ha): L-175.8-0.6-8-29

Max. Depth (m): RB DV

Conductivity

Species

*** Indicates Information Not Available

Stream Survey Features

- Stream or Lake Site
- Survey Feature (See below for label key)

Survey Feature Label Key

- Canyon
- Cascade
- Culvert
- Fall
- Beaver Dam
- Dewatering
- Log Jam
- Fisheries Sensitive Zone
- Trough
- Spawning Channel
- Ditch/Diversion
- Subsurface Flow
- Field Evidence of Groundwater Reach Break
- Bridge/Crossing
- Ford
- Tributary
- Landslide
- Fish Observation - Other
- Fish Present
- Fish Spawning - Upstream Limit - Salmon

Other Mapped Features

- Proposed Access Route
- Provisional Conveyer
- Provisional Road
- Provisional Project Infrastructure
- Paved Road
- Gravel Road
- Trail
- TRIM Bridge
- 100m Contour
- River - Definite
- River - Indefinite
- City / Town
- BC Watershed Atlas Group
- Protected Area
- 20k TRIM Mapsheet
- Lake/River
- Wetlands
- Marsh
- Wetlands
- Sand or Gravel Bar
- Reservoir
- Glacier
- Icefield

Fish Species/Sampling Codes

LT Lake Trout (<i>Salvelinus namaycush</i>)	MW Mountain Whitefish (<i>Prosopium williamsoni</i>)	NS Not Sampled
BT Bull Trout (<i>Salvelinus confluentus</i>)	GR Arctic Grayling (<i>Thymallus arcticus</i>)	NFC No Fish Caught
RB Rainbow Trout (<i>Oncorhynchus mykiss</i>)	LSU Longnose Sucker (<i>Catostomus catostomus</i>)	NVC No Visible Channel
		NCD Non Classified Drainage

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Study Area Key Map Scale: 1:250,000

45 Digit 12 Set Array Watershed Code (Appended to left 30 characters)

Key Map Legend

- Main Map Focus
- Mapseries Extents
- Access Road
- Provisional Infrastructure
- WSA Watershed Group
- Water
- 20000k Trim Sheet

Base: TR
Str Sym: INV
Loc: FDG/FDE
Lk Sym: INV
Hab: INV
Fish: INV/D
Date Inv: 2007/07-11
Inv Mgmt: Rescan Environmental Services Ltd.

GIS No. 830-8-05c

**APPENDIX 3.1-4
SUMMARY OF SITE CLASSIFICATIONS FOR
STREAM CROSSINGS ALONG THE PROPOSED
SCHAFT ACCESS ROUTE**

Appendix 3.1-4
Classification for All Sites Assessed Along Proposed Access Road

Site	McElhanney #	ILP	NID	Easting	Northing	Classification
100	M1	1000	10000	382752	6332127	S6
101	M1	1000	10002	382809	6332160	S6
102	M4	1001	10003			S6
103	M5	1002	10005	382778	6332474	S6
104	N/A	1003	10007	382784	6332511	NCD
105	N/A	1004	10008	382790	6332535	S6
106	N/A	1005	10009	382791	6332798	NCD
107	M7	1006	10018	382779	6332895	S6
108	M8	1007	10010	382810	6333022	S6
109	M9	1008	10012	382843	6333214	S6
110	M10	1009	10014	382883	6333497	S6
111	M11	1010	10016	382929	6333585	S6
112	M12	1011	10017	382936	6333596	S6
113	N/A	1012	10019	382931	6333844	NCD
114	M13	1013	10020	382931	6333893	S6
115	M14	1014	10021	383000	6334318	S6
116	M15	1015	10022	383178	6335103	S6
117	M16	1016	10023	383168	6335243	NCD
118	M17	1017	10024	383147	6335405	S6
119	M18	1018	10025	383117	6335507	S5
120	M19	1019	10026	383139	6335753	S6
121	M20	1020	10027	383206	6335929	S6
122	M21	1021	10028	383263	6336024	NCD
123	M22	1022	10029	383244	6335974	S6
124	N/A	1023	10030	383258	6336031	NCD
125	M23	1024	10031	383258	6336056	NCD
126	M24	1025	10032	383326	6336132	S5
127	M25	1026	10033	383332	6336139	S6
128	M26	1027	10034	383831	6337147	S6
131	M33	1030	10040	384771	6339654	S6
132	M32	1031	10043	384704	6338998	S6
133	M31	1032	10044	384615	6338697	NCD
134	M30	1033	10045			S6
135	N/A	1034	10046	385048	6341401	NCD
136	M40	1035	10047	385075	6341641	S6
137	M41	1036	10048	385054	6341702	NCD
138	N/A	1037	10049	385045	6341734	NCD
139	M42	1038	10050	385161	6342171	(S3)
140	N/A	1039	19999	385182	6342174	NCD
141	M43	1040	10052	385198	6342173	S6
142	M44	1041	10054	385239	6342198	S6
143	M45	1042	10057	385229	6342175	S6
144	N/A	1043	10058	385233	6342183	S6
145	N/A	1044	10059	385249	6342220	NCD
146	M46	1045	10060	384280	6342239	S6
147	M47	1046	10061	385300	6342282	S6
148	M48	1047	10062			S6
149	M49	1048	10063	385327	6342484	NCD
150	M50	1049	10064	385365	6342590	S6
151	M51	1050	10065	385429	6342870	S6
152	N/A	1051	10066	385145	6343145	NCD
153	M52	1052	10067	385423	6343199	S5
157	M53	1056	10068	385432	6343329	(S4)
158	M53	1057	10069	385441	6343349	(S4)
159	M53	1058	10070	385431	6343349	(S3)
160	N/A	1059	10072	385422	6343408	NCD
161	M54	1060	10073	385383	6343556	S6
162	M55	1061	10076	385282	6343877	NCD
163	N/A	1062	10078	385153	6344047	NCD
164	M56	1063	10079	385127	6344274	NCD
165	M57	1064	10081	385118	6344301	S6
166	M58	1065	10084	385134	6344353	S6
167	M59	1066	10085	385126	6344347	S6
168	M60	1067	10086	384891	6344828	S6
169	N/A	1068	10087	384815	6345077	NCD
170	M61	1069	10088	384799	6345108	NCD
171	M62	1070	10089	384772	6345142	S6
172	N/A	1071	10090	384774	6345318	NCD
173	M64	1072	10091	384668	6345904	S5
174	N/A	1073	10092	384659	6346055	NCD
175	N/A	1074	10093	384667	6346279	NCD
176	N/A	1075	10094	384679	6346322	NCD
177	M65	1076	10095	384709	6346429	S6
178	M66	1077	10096	384728	6346681	S6
179	M67	1078	10097	384817	6347037	S2
180	M68	1079	10098	384913	6347801	S2
181	M69	1080	10099	384899	6348050	NCD

(continued)

Appendix 3.1-4

Classification for All Sites Assessed Along Proposed Access Road (continued)

Site	McElhanney #	ILP	NID	Easting	Northing	Classification
182	N/A	1081	10100	384850	6348334	NCD
183	N/A	1082	10102	384302	6348682	NCD
184	N/A	1083	10103	384302	6349989	FSZ
185	N/A	1084	10104	384392	6350219	FSZ
186	M71	1085	10105	384525	6350519	S6
187	M72	1086	10106	384673	6351276	S2
188	N/A	1087	10107	384812	6351764	NCD
189	M73	1088	10108	384814	6351793	S6
190	M74	1089	10109	384901	6352271	S6
191	M75	1090	10110	384887	6352387	S6
192	M76	1091	10111	384909	6352546	S6
193	M77	1092	10112	385087	6352997	(S4)
194	M78	1093	10113	385110	6353294	S6
195	M79	1094	10114	385132	6353520	(S3)
196	N/A	1095	10115	385269	6354052	NCD
197	M80	1096	10116	385267	6354093	NCD
198	N/A	1097	10117	385286	6354139	NCD
199	N/A	1098	10118	385297	6354321	NCD
200	M81	1099	10119	385415	6354469	S2
201	M81A	1100	10120			NCD
202	M82	1101	10121	385537	6354612	NCD
203	M83	1102	10122	385653	6354829	S6
204	M84	1103	10123	385578	6354862	S6
205	N/A	1104	10124	385650	6355219	NCD
206	M85	1105	10125	385676	6355426	S6
207	M86	1106	10126	385699	6355571	(S4)
208	M87	1107	10127	385702	6355690	S6
209	M88	1108	10128	385720	6356007	S2
210	N/A	1109	10130	385658	6357535	NCD
211	N/A	1110	10131	385548	6357951	(S4)
212	M89	1111	10132	385511	6358187	S4
213	M90	1112	10133	385453		S6
214	M91	1113	10134	385290	6359181	NCD
215	M92	1114	10135	385245	6359315	S6
216	M93	1115	10136	385054	6359517	S6
217	N/A	1116	10137	384922	6359870	FSZ
218	M94	1117	10138	385034	6360299	S6
219	M95	1118	10139	385024	6360324	NCD
220	M96	1119	10140	385034	6360354	S6
221	M97	1120	10141	385004	6360454	S6
222	M98	1121	10142	384993	6360487	S6
223	M99	1122	10143	384985	6361012	S6
224	N/A	1123	10144	384978	6361222	NCD
225	M100	N/A	10145	384536	6361837	S1
226	M101	N/A	10151	384357	6362162	S1
227	N/A	1124	10152	384304	6362203	NCD
228	M102	1125	10153	384249	6362266	NCD
229	M103	1126	10153	384227	6362300	S6
230	M104	1127	10154			S6
231	M105	1128	10155	384167	6362325	(S4)
232	M106	1129	10156	384075	6362392	S3
233	M107	1130	10157	383648	6363017	S3
234	M108	1131	10158	383567	6363093	S6
235	M109	1132	10160	383516	6363131	S6
236	N/A	1132	10162	383508	6363132	NCD
237	M110	1133	10163	383484	6363126	(S4)
238	M111	1134	10164	383478	6363135	NCD
239	M112	1135	10165	383477	6363136	(S4)
245	M113	1138	10170	383316	6363459	S6
246	M114	1138	10172	383003	6363545	S6
247	N/A	1139	10173	382972	6363490	NCD
248		1140	10174	382977	6363387	S6
249	N/A	1141	10175	382987	6363041	NCD
250	M117	1142	10176	382947	6362989	NCD
251	M118	1143	10177	382955	6362792	S6
252	M119	1144	10178	382943	6362755	NCD
253	M120	1145	10179	382972	6362776	S6
254	M121	1146	10180	382959	6362724	S6
255	M122	1147	10181	382799	6362320	NCD
256	M123	1148	10182	382794	6362313	S6
257	M124	1149	10183	382772	6362276	S6
258	N/A	1150	10184	382761	6362246	NCD
259	N/A	1151	10185	382546	6361899	NCD
260	M126	1152	10186	382508	6361780	S6
300	M27	2000	20000	383909	6337546	S2
301	M28	2001	20018	384549	6338538	NVC
302	M29	2002	20002	384561	6338542	

(continued)

Appendix 3.1-4
Classification for All Sites Assessed Along Proposed Access Road (completed)

Site	McElhanney #	ILP	NID	Easting	Northing	Classification
307	M34	2007	20007	384858	6339948	S6
308	M36	2008	20008	384893	6340048	S6
309	M37	2009	20009	384890	6340063	NCD
310	N/A	2010	20010	384903	6340087	S6
311	M38	2011	20011	384873	6340212	?
311	M38	2011	10227	384887	6340234	S6
312	M38	2011	20013	384899	6340250	(S4)
313	N/A	2012	20015	384826	6340470	(S4)
314	N/A	2013	20016	384852	6340678	NCD
315	N/A	2014	20017	384798	6340564	NCD
320	M222	2050	20020	382514	6331690	S6
321	M221	2051	20021	382573	6332015	S6
322	M220	2052	20022	382595	6332113	NCD
323	N/A	2053	20023	382603	6332164	NCD
324	N/A	2054	20024	382616	6332247	S6
325	N/A	2055	20026	382477	6332669	NCD
326	M219	2056	20027	382477	6332728	S6
327	M218	2057	20029	382501	6332912	S6
328	N/A	2058	20031	382515	6333003	NCD
329	M217	2059	20032	382578	6333215	S6
330	N/A	2060	20034	382596	6333213	NCD
331	M216	2061	20035	382591	6333445	(S2)
332	M215	2062	20036	382775	6334355	S6
333	M214	2063	20037	382756	6334570	S6
334	M213	2064	20038	382760	6334600	S6
335	M211	2066	20040	382980	6335493	S6
336	M210	2067	20041	382999	6335568	S6
337	M209	2068	20042	383011	6335800	S6
338	M208	2069	20043	383031	6335856	S6
339	M207	2070	20044	383089	6335998	S6
340	M206	2071	20045	383200	6336175	(S3)
341	M205	2072	20046	383200	6336190	S6
342	M204	2073	20047	383223	6336197	NCD
343	M203	2074	20048	383237	6336250	S6
344	M202	2075	20049	383640	6336995	NCD
345	M201	2076	20050	383745	6337089	S6
346	M200	2077	20051	383805	6337156	(S4)
399	M212	2061	20039	382965	6335329	(S2)
400	M130	4000	10200	382493	6361723	NCD
401	N/A	4001	10201	382481	6361649	S6
402	M129	4002	10202	382464	6361639	S6
403	N/A	4002	10203	382456	6361619	S6
404	M131	4003	10204	382418	6361572	S6
405	M132	4004	10205	382414	6361567	NCD
406	M133	4005	10206	382399	6361561	NCD
407	M134	4006	10207	382390	6361528	S6
408	M135	4007	10208	382296	6361414	NCD
409	M136	4008	10209	382292	6361393	S6
410	N/A	4008	10210	382280	6361401	NCD
411	N/A	4009	10211	382265	6361358	NCD
412	N/A	4010	10212	382124	6361160	NCD
413	M137	4011	10213	382031	6361027	S6
414	M138	4012	10214	381920	6360824	NCD
415	M139	4013	10215	381820	6360698	S6
416	M140	4014	10216	381670	6360500	S6
417	M141	4015	10219	381626	6360439	NCD
418	M142	4016	10220	381590	6360382	NCD
419	N/A	4017	10221	381372	6360150	(S4)
420	N/A	4018	10224	381032	6359884	S6
421	N/A	4019	10225	381000	6359858	NCD
422	N/A	4020	10226	380977	6359829	NCD
423	N/A	4021	10228	384862	6340351	NCD
999	M70	1999	10101	384824	6348405	NCD

APPENDIX 3.1-5
NAVIGABLE WATER SITE APPENDIX

Appendix 3.1-5 – Summary of Stream Crossing Photo

Documentation of Sites Assessed for Navigable Waters, 2007

Road crossing sites where average bankfull width exceeded 3 m were subjected to additional photo-documentation to determine their suitability for navigation as per the requirements of Transport Canada. These photographs will be used to assist in determining if any stream crossings need to be designed for navigability. Sites were generally photographed from eight angles looking towards the road crossing site. However, some sites that were obviously navigable, or where barriers to navigation existed, were photographed from fewer angles. In these instances, the habitat photos taken during the survey are presented here. A summary of sites assessed for Navigable Waters is presented in Table 1. Photos were taken starting at 0° (looking directly downstream) and moving clockwise around the crossing in 45° increments, for a total of eight angles. Camera angles are abbreviated using the following legend:

TC1: 0° looking downstream towards the stream crossing

TC2: 45° looking from the left bank downstream towards the crossing

TC3: 90° looking from left bank directly across the stream at the crossing

TC4: 135° looking from the left bank upstream towards the crossing

TC5: 180° looking upstream towards the crossing

TC6: 225° looking from the right bank upstream towards the crossing

TC7: 270° looking from the right bank directly across the stream at the crossing

TC8: 315° looking from the right bank downstream towards the crossing

Transport Canada – Information Related to the Navigable Waters Protection Act

This section provides information on 17 major stream crossings of the proposed Schaft Project access road. In the future, Copper Fox Metals Inc. will require an engineered road that is suitable for large and small truck traffic to access the mine site area on a year round basis. The information provided in this section is to be used to gain a sense of terrain and stream characteristics along the proposed road. The number and location of stream crossings is subject to change, and is dependent on the finalized road alignment. This section includes all major crossings identified in the field to assist Transport Canada in conducting a preliminary assessment on navigable waters. Further work is required to determine exact locations of small stream crossings using standard culvert designs. Crossing locations may still be subject to change as engineering work on road design progresses. CEA Agency, as well as the other regulatory agencies involved, will be kept up to date on any proposed changes to the access road alignment. No bridge designs have been developed at this time. Conventional bridge construction methods will be used. Bridges will be designed with a minimum of 1.5 m clearance between the lowest structural member and the Q100 (100 year return period discharge) level.

Table 1 provides summary information for each major stream crossing site, including:

- Reference Name;
- Rescan NID #;
- Rescan site #;
- Location (UTM);
- Channel width (m);
- Bankfull depth of water at crossing (m);
- Photos linked to the site (all photos in order presented in table);
- Preliminary estimation of navigability; and
- Comment.

Appendix 3.1-5 – Summary of Stream Crossing Photo

Photos for All Potentially Navigable Streams along the Proposed Access Road



Site 139 – TC1



Site 139 – TC2



Site 139 – TC3



Site 139 – TC4

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 139 – TC5



Site 139 – TC6



Site 139 – TC7



Site 139 – TC8

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 153 – TC1



Site 153 – TC2



Site 153 – TC3



Site 153 – TC4

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 153 – TC5



Site 153 – TC6



Site 153 – TC7



Site 153 – TC8

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 173 – TC1



Site 173 – TC2



Site 173 – TC3



Site 173 – TC4

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 173 – TC5



Site 173 – TC6



Site 173 – TC7



Site 173 – TC8

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 179 – TC1



Site 179 – TC2



Site 179 – TC3



Site 179 – TC4

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 179 – TC5



Site 179 – TC6



Site 179 – TC7



Site 179 – TC8

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 180 – TC1



Site 180 – TC2

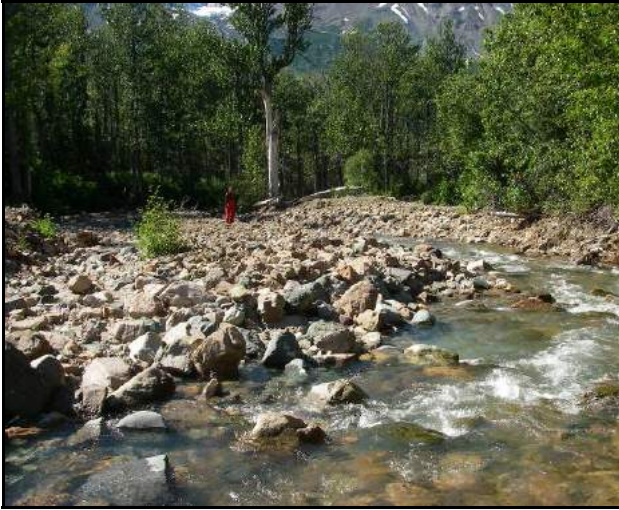


Site 180 – TC3



Site 180 – TC4

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 180 – TC5



Site 180 – TC6



Site 180 – TC7



Site 180 – TC8

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 187 – TC1



Site 187 – TC2

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 187 – TC3



Site 187 – TC4

Appendix 3.1-5 – Summary of Stream Crossing Photo

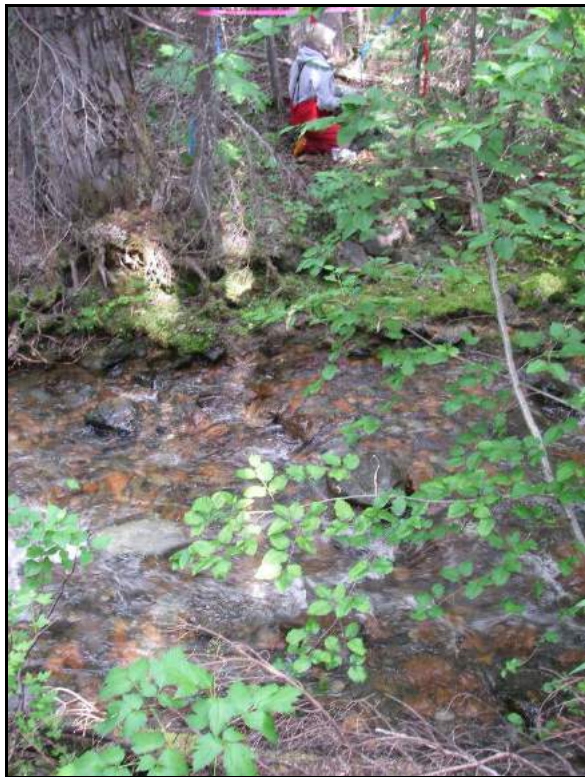


Site 187 – TC5



Site 187 – TC6

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 187 – TC7



Site 187 – TC8

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 200 – TC1



Site 200 – TC2



Site 200 – TC3



Site 200 – TC4

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 200 – TC5



Site 200 – TC6



Site 200 – TC7



Site 200 – TC8

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 209 – TC1



Site 209 – TC2



Site 209 – TC3



Site 209 – TC4

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 209 – TC5

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 225 - Downstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 225 – Upstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 226 - Upstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 226 – Downstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 246 - Upstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 246 – Downstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 300 - Upstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 300 – Downstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 399 - Downstream

Appendix 3.1-5 – Summary of Stream Crossing Photo



Site 399 - Upstream

**APPENDIX 3.2-1
SITE CARDS COMPLETED FOR SCHAFT CREEK
RECEIVING ENVIRONMENT SITES**

FDIS Site Card

Watershed Code: 600-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.2 ILP Map # ILP # Site # 322

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): STIKINE RIVER
 Project Watershed Code: 600-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: STIKINE RIVER Local Name: ST2
 Watershed Code: 600-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.095 NID #: 30047 Reach #: 1.2 Site #: 322
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.372853.6419747 Ref. Name:
 Date: 2007/06/19 Time: 09:55 Agency: C660 Crew: KM Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	GE	180.00	200.00	160.00							180.00		Method I: 0.0	0.5	C	0.25
Wetted Width (m):	GE	180.00	200.00	160.00							180.00		Method II:		C	
Pool Depth (m):	GE										0.00					

Wb Depth: 5.0 10.0 Avg: 7.50 Method: GE Stage: L M H

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	T	N	S	D	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

LWD: N DIST: NA
 LB SHP: V RB SHP: V
 Texture: F G C B R A
 RIP: D RIP: S
 STG: YF STG: SHR

CROWN CLOSURE: 0 0%
 INSTREAM VEG: N A M V

WATER

EMS: Req #: Method: T3 Cond.: 100 Method: S3
 Temp: 8 Method: P2 Turb.: T M L C Method: GE
 pH: 7.9 Method: GE
 Flood Signs: in flood

MORPHOLOGY

Bed Material: Dominant: B Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 80.0 D (cm): 40.00 Morph: LC DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO
 Confinement: CO
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - no suitable gravel
OverWinter Habitat	poor - fast flow, no pools, but deep
Rearing Habitat	poor - little cover, fast flow

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3429	STD	D	
R: 100 F: 3430	STD	X	to RB
R: 100 F: 3431	STD	U	

FDIS Site Card

Watershed Code: 600-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.2 ILP Map # ILP # Site 322

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 100	F: 3432	STD	D	LB flooded
R: 100	F: 3433	STD	U	RB flooded
WILDLIFE				
Group		Observations		
MAM		moose scat		
COMMENTS				
Section		Comments		
CHANNEL		large single channel, faster than DS reach. But no standing waves. Jus tus of telegraph creek. RB is bedrock steep, LB is boulder cobble. Not a lot of useable fish habitat		

FDIS Site Card

Watershed Code: 600-324400-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.1 ILP Map # ILP # Site # 300

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): STIKINE RIVER
 Project Watershed Code: 600-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: YEHNIKO CREEK Local Name: YC1
 Watershed Code: 600-324400-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.073 NID #: 30000 Reach #: 1.1 Site #: 909
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: HC Access: H
 GIS UTM (Z.E.N): 9.355357.6405706 Ref. Name:
 Date: 2007/06/13 Time: 09:15 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg
Channel Width (m):	GE	30.00	70.00	30.00	35.00							41.25
Wetted Width (m):	GE	30.00	35.00	30.00	30.00							31.25
Pool Depth (m):	GE											0.00

	Gadiant %	Mtd	Avg
Method I:	1.5	C	1.50
Method II:		C	

Wb Depth:	2.2	1.8	
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Avg: 2.00 Method: GE Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	D	T	N	N	S	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: V

Texture: F G C B R A

RIP: D

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: D

STG: SHR

WATER

EMS: Req #: Method: T3 Cond.: 90 Method: S3
 Temp: 6 Method: P2 Turb.: T M L C Method: GE
 pH: 7.5 Method: GE
 Flood Signs: rafted debris

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 29.0 D (cm): 29.00 Morph: CP
 Pattern: SI DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: F
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	good - lots of good gravel
OverWinter Habitat	poor - no shelter from flow, no deep pools
Rearing Habitat	rair - good flow and depth, but little cover

WILDLIFE

Group	Observations
MAM	grizzly tracks, moose tracks
BIR	sandpipers

FDIS Site Card

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
Reach # 1.0 ILP Map # ILP # Site 317

PROJECT

Project Name: Schaft Creek
Stream Name (gaz.): MESS CREEK Project Code: 17415
Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: MESS CREEK Local Name: MC10
Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000-000
ILP Map #: ILP #: NID Map #: 104G.036 NID #: 30034 Reach #: 1.0 Site #: 317
Field UTM (Z.E.N): .. Method: Site Lg: 75 Method: HC Access: H
GIS UTM (Z.E.N): 9.385545.6364664 Ref. Name:
Date: 2007/06/17 Time: 08:00 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	42.00	33.00									37.50	Method I:	0.0	0.5	C 0.25
Wetted Width (m):	GE	45.00	40.00									42.50	Method II:			C
Pool Depth (m):	GE											0.00				

Wb Depth: 1.5 1.8 Avg: 1.65 Method: GE Stage: L M H

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	N	S	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%
INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: S

Texture: F G C B R A

RIP: W

STG: NA

RB SHP: S

Texture: F G C B R A

RIP: W

STG: NA

WATER

EMS: Temp: 5 pH: 7.4 Flood Signs: Method: T3 Method: P2 Method: GE Req #: Cond.: 150 Turb.: T M L C Method: S3 Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G Morph: LC
D95: 2.00 D (cm): 2.00
Pattern: IM Islands: I Coupling: DC Confinement: UN FSZ:
DISTURBANCE INDICATORS:
O1 B1 B2 B3 D1 D2 D3

C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - no gravel, turbid
OverWinter Habitat	fair - good cover, slow flow but turbid
Rearing Habitat	fair - good cover, slow flow but turbid

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3360	STD	U	
R: 100 F: 3361	STD	D	

FDIS Site Card

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.1 ILP Map # ILP # Site # 301

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: MESS CREEK Local Name: MC1
 Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.084 NID #: 30002 Reach #: 1.1 Site #: 301
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383919.6337798 Ref. Name:
 Date: 2007/06/13 Time: 13:10 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	100.00	90.00	70.00							86.67		Method I: 1.5	C	1.50
Wetted Width (m):	GE	10.00	12.00	11.00							11.00		Method II:	C	
Pool Depth (m):	GE										0.00				

Wb Depth: 1.5 1.5 Avg: 1.50 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	S	T	T	N	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: MF

LWD: N DIST: NA
 LB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 80 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: 7.0 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 25.0 D (cm): 25.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some good gravel not much
OverWinter Habitat	poor - no shelter
Rearing Habitat	poor - no shelter from flow, no deep pools

FDIS Site Card

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.2 ILP Map # ILP # Site # 302

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: MESS CREEK Local Name: MC2
 Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.084 NID #: 30004 Reach #: 1.2 Site #: 302
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384067.6354975 Ref. Name:
 Date: 2007/06/13 Time: 15:15 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %			Mtd	Avg
Channel Width (m):	GE	60.00	30.00	45.00	18.00	32.00						37.00	Method I:	1.0		C	1.00
Wetted Width (m):	GE	80.00	30.00	45.00	19.00	32.00						41.20	Method II:			C	
Pool Depth (m):	GE											0.00					

Wb Depth: 1.5 Avg: 1.50 Method: GE Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	N	S	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

0 0%

INSTREAM VEG: N A M V

LWD: F DIST: C

LB SHP: S

Texture: F G C B R A

RIP: W

STG: NA

RB SHP: S

Texture: F G C B R A

RIP: W

STG: NA

WATER

EMS: Req #: Method: T3 Cond.: 200 Method: S3
 Temp: 9 Method: P2 Turb.: T M L C Method: GE
 pH: 7.3 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: F Subdom: NA O1 B1 B2 B3 D1 D2 D3
 D95: 0.10 D (cm): 0.01 Morph: LC DISTURBANCE INDICATORS

Pattern: IM C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N

Coupling: PC Bars: N SIDE DIAG MID SPAN BR

Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - no gravel
OverWinter Habitat	fair - deep slowish, moderate cover
Rearing Habitat	fair - slowish flow, moderate cover, but very turbid

WILDLIFE

Group	Observations
BIR	goose skat, duck
MAM	moose tracks

FDIS Site Card

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.5 ILP Map # ILP # Site # 319

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: MESS CREEK Local Name: MC5
 Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map #: ILP #: NID Map #: 104G.066 NID #: 30038 Reach #: 1.5 Site #: 319
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383705.6394902 Ref. Name:
 Date: 2007/06/17 Time: 13:05 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	GE	65.00	60.00	70.00	67.00						65.50		Method I: 1.0	2.0	C	1.50
Wetted Width (m):	GE	60.00	60.00	55.00	65.00						60.00		Method II:		C	
Pool Depth (m):	GE										0.00					

Wb Depth: 2.1 1.7 Avg: 1.90 Method: GE Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	D	T	T	N	S	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: F DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: D
 STG: PS

WATER

EMS: Req #: Method: T3 Cond.: 110 Method: S3
 Temp: 8 Method: P2 Turb.: T M L C Method: GE
 pH: 7.5 Method: GE
 Flood Signs: eroded banks

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 19.0 D (cm): 13.00 Morph: RP

Pattern: SI DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: F

Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some decent gravel in side channels
OverWinter Habitat	poor - no deep pools
Rearing Habitat	fair - some good habitat in back/side channels

WILDLIFE

Group	Observations
MAM	moose tracks, and moose cow.

FDIS Site Card

Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Reach # 2.1 ILP Map # ILP # Site # 517

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: MESS CREEK Local Name: MC1
 Watershed Code: 630-000000-00000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.016 NID #: 50033 Reach #: 2.1 Site #: 517
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383914.6337796 Ref. Name:
 Date: 2007/09/18 Time: 15:20 Agency: C660 Crew: MM CD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	40.00	50.00	50.00	60.00	60.00	60.00	60.00	60.00			54.29		Method I: 2.0	C	2.00
Wetted Width (m):	GE	5.20	10.20	10.60	11.00	12.00	12.00	12.00				10.43		Method II:		C
Pool Depth (m):	GE	0.37	0.45	0.40	0.42	0.40						0.41				

Wb Depth: 1.7 1.6 1.7 Avg: 1.67 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	T	D	T	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: S
 STG: SHR

LWD: F DIST: C
 LB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: YF

WATER

EMS: Req #: Method: T3 Cond.: 80 Method: S3
 Temp: 2 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs: scoured banks

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 27.00 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: AN
 Coupling: PC
 Confinement: OC
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	none - high current velocity, large substrate
OverWinter Habitat	none - no deep pools
Rearing Habitat	poor - cascade fast current, cold temp

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 113 F: 862	STD	U	
R: 113 F: 863	STD	U	
R: 113 F: 864	STD	D	

FDIS Site Card

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.1 ILP Map # ILP # Site 517

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R: 113	F: 865	STD	NS	flood plain with bedload and carolly standing beside bank	
R: 113	F: 866	STD	X	several stepbanks	
R: 113	F: 867	STD	D		
COMMENTS					
Section		Comments			
CHANNEL		extensive evidence of spring flooding, very large flood plain with bedload. Step banks,. Bank scouring. Too cold to EF, shocked trib 300m us			

FDIS Site Card

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.5 ILP Map # ILP # 512 Site # 512

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: MESS CREEK Local Name: MC5
 Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.066 NID #: 50025 Reach #: 2.5 Site #: 512
 Field UTM (Z.E.N): .. Method: Site Lg: 205 Method: GE Access: H
 GIS UTM (Z.E.N): 9.383687.6394880 Ref. Name:
 Date: 2007/09/17 Time: 08:30 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	60.00	70.00								65.00		Method I: 2.0	C	2.00
Wetted Width (m):	GE	40.00	45.00								42.50		Method II:	C	
Pool Depth (m):	GE	1.00	1.00								1.00				

Wb Depth: 2.5 3.0 Avg: 2.75 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: NS

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	T	S	N	N	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V

LWD: F DIST: C
 LB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: YF

RB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: YF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 120 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: scoured banks Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 28.0 D (cm): 18.0 Morph: RP
 Pattern: IM DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: NS
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
OverWinter Habitat	fair - large pool across main channel
Spawning Habitat	poor
Rearing Habitat	good -

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 112 F: 835	STD	D	side channel
R: 112 F: 836	STD	D	side channel
R: 112 F: 837	STD	D	

FDIS Site Card

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.5 ILP Map # ILP # Site 512

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 112	F: 838	STD	U	
R: 112	F: 839	STD	U	side channel
COMMENTS				
Section		Comments		
SITE CARD		main channel too fast and deep to measure, missed approx 10 fish		
CHANNEL		big island between main and side channel. Extensive deposition of bedload and scouring of banks		

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000-000
 Reach # 1.5 ILP Map # ILP # Site # 320

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: SCHAFT CREEK Local Name: SC5
 Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.066 NID #: 30040 Reach #: 1.5 Site #: 910
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.384170.6392573 Ref. Name:
 Date: 2007/06/17 Time: 14:50 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg
Channel Width (m):	GE	150.00	180.00	120.00	200.00							162.50
Wetted Width (m):	GE	80.00	100.00	90.00	110.00							95.00
Pool Depth (m):	GE											0.00

	Gadiant %	Mtd	Avg
Method I:	2.0	2.5	C 2.25
Method II:			C

Wb Depth: 1.5 1.8 Avg: 1.65 Method: GE Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	S	T	N	N	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE

0 0%

INSTREAM VEG: N A M V

LWD: F DIST: E

LB SHP: S

Texture: F G C B R A

RIP: C

STG: MF

RB SHP: V

Texture: F G C B R A

RIP: M

STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 90 Method: S3
 Temp: 7 Method: P2 Turb.: T M L C Method: GE
 pH: 7.2 Method: GE
 Flood Signs: broken trees

MORPHOLOGY

Bed Material: Dominant: G Subdom: C O1 B1 B2 B3 D1 D2 D3
 D95: 20.0 D (cm): 15.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	good - lots of good gravel
OverWinter Habitat	poor - no deep pools
Rearing Habitat	fair - some good habitat in side/back channels

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3384	STD	D	
R: 100 F: 3385	STD	U	
R: 100 F: 3386	STD	U	

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.6 ILP Map # ILP # Site # 307

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: SCHAFT CREEK Local Name: SC6
 Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.035 NID #: 30015 Reach #: 1.6 Site #: 307
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: HC Access: H
 GIS UTM (Z.E.N): 9.378123.6361617 Ref. Name:
 Date: 2007/06/14 Time: 15:25 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	180.00	150.00	200.00								176.67	Method I:	1.0	C	1.00
Wetted Width (m):	GE	90.00	80.00	100.00								90.00	Method II:		C	
Pool Depth (m):	GE											0.00				

Wb Depth: 1.0 Avg: 1.00 Method: GE Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	D	N	N	N	T	T	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V

LWD: F DIST: E
 LB SHP: S RB SHP: S
 Texture: F G C B R A Texture: F G C B R A
 RIP: M RIP: M
 STG: MF STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 110 Method: S3
 Temp: 6 Method: P2 Turb.: T M L C Method: GE
 pH: 7.5 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 10.0 D (cm): 10.0 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: DC
 Confinement: OC Bars: N SIDE DIAG MID SPAN BR
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - good gravel and flow, but no holding areas
OverWinter Habitat	poor - no pools or cover
Rearing Habitat	poor - no pools or cover

WILDLIFE

Group	Observations
MAM	moose tracks

COMMENTS

Section	Comments

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.7 ILP Map # ILP # Site # 316

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: SCHAFT CREEK Local Name: SC7
 Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.066 NID #: 30032 Reach #: 1.7 Site #: 316
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: HC Access: H
 GIS UTM (Z.E.N): 9.381527.6384002 Ref. Name:
 Date: 2007/06/16 Time: 14:20 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	GE	39.00	42.00	45.00	44.00	50.00						44.00	Method I:	0.5	0.5	C	0.50
Wetted Width (m):	GE	35.00	40.00	43.00	44.00	50.00						42.40	Method II:			C	
Pool Depth (m):	GE											0.00					

Wb Depth: 1.9 1.8 Avg: 1.85 Method: GE Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	D	T	T	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C STG: MF

LWD: F DIST: E
 LB SHP: S
 Texture: F G C B R A
 RIP: M STG: MF

WATER

EMS: Req #:
 Temp: 7 Method: T3 Cond.: 90 Method: S3
 pH: 7.4 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: rafted debris Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 40.0 D (cm): 4.00 Morph: LC
 Pattern: SI DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some good gravel in slower parts maybe
OverWinter Habitat	poor - no deep pools
Rearing Habitat	fair - some good habitat along bnks, cover

WILDLIFE

Group	Observations
MAM	porcupine scratchings

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-000-000-000-000-000-000-000

Reach # ILP Map # ILP # Site
 2.1 505

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	110	F: 800	STD	D	rb at highest flows
R:	110	F: 801	STD	D	
R:	110	F: 802	STD	U	
R:	110	F: 803	STD	U	
R:	110	F: 804	STD	D	rb at highest flows
COMMENTS					
Section		Comments			
SITE CARD		water too swift to measure depth in thalweg			
CHANNEL		evidence of very large runoff scour, large boulders in empty channels, several channel banks. High flows for season. Very cold.			

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.3 ILP Map # ILP # 17415 Site 507

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: SCHAFT CREEK Local Name: SC3
 Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.045 NID #: 50008 Reach #: 2.3 Site #: 507
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.385738.6366769 Ref. Name:
 Date: 2007/09/15 Time: 12:00 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg
Channel Width (m):	GE	50.00	30.00	30.00								36.67
Wetted Width (m):	GE	80.00	100.00	100.00								93.33
Pool Depth (m):	GE	1.20	1.20	1.20								1.20

	Gadient %	Mtd	Avg
Method I:	1.2	C	1.20
Method II:		C	

Wb Depth: 2.0 Avg: 2.00 Method: GE Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: NS

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	T	N	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%

INSTREAM VEG: N A M V

LWD: NS DIST: NS

LB SHP: U
 Texture: F G C B R A
 RIP: M
 STG: MF

RB SHP: U
 Texture: F G C B R A
 RIP: M
 STG: MF

WATER

EMS: Temp: 6 Method: T3 Req #: Cond.: 60 Method: S3
 pH: Method: P2 Method: GE
 Flood Signs: scar marks Method: GE Turb.: T M L C

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 14.0 D (cm): 10.00 Morph: CP Morph: CP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: AN
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none
OverWinter Habitat	none
Rearing Habitat	nonr - high flow, high sed, no pools

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 110 F: 812	STD	NS	dry channel
R: 110 F: 813	STD	U	
R: 110 F: 814	STD	U	

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.5 ILP Map # ILP # Site # 513

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: SCHAFT CREEK Local Name: SC5
 Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.066 NID #: 50027 Reach #: 2.5 Site #: 513
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: MS Access: H
 GIS UTM (Z.E.N): 9.384276.6392617 Ref. Name:
 Date: 2007/09/17 Time: 11:55 Agency: C660 Crew: MM CD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	250.00	280.00	260.00								263.33	Method I:	2.0	C	2.00
Wetted Width (m):	GE	80.00	80.00	80.00								80.00	Method II:		C	
Pool Depth (m):	GE	0.70	0.80	0.70								0.73				

Wb Depth: 2.0 2.5 1.8 Avg: 2.10 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: NS

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	S	S	T	S	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: NS
 STG: YF

LWD: A DIST: C
 LB SHP: V
 Texture: F G C B R A
 RIP: NS
 STG: YF

WATER

EMS: Req #: Method: T3 Cond.: 70 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs: deposited bedload

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 25.0 D (cm): 14.00 Morph: RP
 Pattern: NS DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: AN
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - too much sediment, possibly better in regular flow year
OverWinter Habitat	good - some deep pools in main channel once current slows
Rearing Habitat	good - deep pools, LWD, SWD canopy cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 112 F: 840	STD	D	side channel pool riffle
R: 112 F: 841	STD	U	side channel riffle
R: 112 F: 842	STD	U	2nd channel

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000

Reach # ILP Map # ILP # Site
 2.5 513

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 112	F: 843	STD	D	2nd channel
R: 112	F: 844	STD	X	both channels
COMMENTS				
Section		Comments		
SITE CARD		could not measure depth and width of main channel, too much current.		
CHANNEL		a lot of SWd and lwd on islands bank erosion from large runoff		

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.6 ILP Map # ILP # Site # 506

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: SCHAFT CREEK Local Name: SC6
 Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.035 NID #: 50019 Reach #: 2.6 Site #: 506
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.378117.6361360 Ref. Name:
 Date: 2007/09/15 Time: 09:50 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	150.00	200.00	200.00								183.33	Method I:		C	0.00
Wetted Width (m):	GE	60.00	70.00	60.00								63.33	Method II:		C	
Pool Depth (m):	GE	0.70	0.70	0.70	0.70							0.70				

Wb Depth: Avg: 0.00 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	T	N	N	N	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: U
 Texture: F G C B R A
 RIP: M
 STG: MF

LWD: F DIST: E
 LB SHP: U
 Texture: F G C B R A
 RIP: S
 STG: INIT

WATER

EMS: Req #: Method: T3 Cond.: 60 Method: S3
 Temp: 6 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs: sed deposits

MORPHOLOGY

Bed Material: Dominant: C Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 20.0 D (cm): 17.00 Morph: CP

Pattern: ME DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: AN

Coupling: PC Bars: N SIDE DIAG MID SPAN BR

Confinement: UN FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor- very silty
OverWinter Habitat	poor- no deep pools
Rearing Habitat	poor - no pools little cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 110 F: 805	STD	NS	lb
R: 110 F: 806	STD	D	
R: 110 F: 807	STD	NS	SWD

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000

Reach # ILP Map # ILP # Site
 2.6 506

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 110	F: 809	STD	NS	RB
R: 110	F: 810	STD	NS	shrubs on flood plain
R: 110	F: 811	STD	U	
COMMENTS				
Section		Comments		
SITE CARD		river too fast to measure depth.		

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 2.7 ILP Map # ILP # Site # 511

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: SCHAFT CREEK Local Name: SC7
 Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.066 NID #: 50011 Reach #: 2.7 Site #: 511
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381743.6384421 Ref. Name:
 Date: 2007/09/15 Time: 14:30 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	35.00	35.00	40.00								36.67	Method I:	1.0	C	1.00
Wetted Width (m):	GE	28.00	25.00	30.00								27.67	Method II:		C	
Pool Depth (m):	GE	1.00	1.00	1.00								1.00				

Wb Depth:

1.5	1.7	1.5
-----	-----	-----

 Avg: 1.57 Method: GE Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	D	T	N	T	T	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: YF

LWD: F DIST: C
 LB SHP: S
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Req #: Method: T3 Cond.: 60 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs: bank deposits

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 0.01 D (cm): 0.01 Morph: LC

Pattern: SI DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N

Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - too much sediment
OverWinter Habitat	poor - deep glide but too swift
Rearing Habitat	good - log jams, swd, with small pools, then poor

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 111 F: 831	STD	D	
R: 111 F: 832	STD	U	
R: 111 F: 833	STD	D	swd lwd

FDIS Site Card

Watershed Code: 630-344000-00000-00000-0000-000-000-000-000-000-000-000 Reach # 2.7 ILP Map # ILP # Site 511

PHOTOS				
Photo		Foc Lg	Dir	Comments
R:	111	F:	834	STD U
COMMENTS				
Section		Comments		
SITE CARD		main channel too deep and fast to measure.		
CHANNEL		ds 100m goo dhabitat, with swd and lwd. Us 100m poor habitat, no swd lwd. Very turbid h2o.		

FDIS Site Card

Watershed Code: 630-344000-44200-00000-00000-00000-000-000-000-000-000-000
 Reach # 1.2 ILP Map # ILP # Site 315

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: SKC2
 Watershed Code: 630-344000-44200-00000-00000-00000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.046 NID #: 30030 Reach #: 1.2 Site #: 315
 Field UTM (Z.E.N): .. Method: Site Lg: 150 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381666.6374261 Ref. Name:
 Date: 2007/06/16 Time: 12:50 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	GE	3.00	4.00	5.00								4.00	Method I:	0.5	1.0	C	0.50
Wetted Width (m):	GE	30.00	20.00	15.00								21.67	Method II:	0.0		C	
Pool Depth (m):	GE											0.00					

Wb Depth: 2.0 1.8 2.2 Avg: 2.00 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	S	N	S	D	S	S	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: W
 STG: NA

LWD: F DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: W
 STG: NA

WATER

EMS: Temp: 9 Method: T3 Req #: Cond.: 150 Method: S3
 pH: 7.1 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: flooded Method: GE

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 5.00 D (cm): 5.00 Morph: LC DISTURBANCE INDICATORS
 Pattern: IM Islands: N C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Coupling: DC Confinement: UN FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	fair - some good gravel in main channel
OverWinter Habitat	good
Rearing Habitat	good - lots of cover, deep, slow flow

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3356	STD	D	
R: 100 F: 3357	STD	U	
R: 100 F: 3358	STD	D	flooded wetland

FDIS Site Card

Watershed Code: 630-344000-44200-00000-00000-00000-000-000-000-000-000-000
Reach # 1.2 ILP Map # ILP # Site 315

PHOTOS				
Photo		Foc Lg	Dir	Comments
R:	100	F: 3359	STD	U flooded wetland

FDIS Site Card

Watershed Code: 630-344000-44200-00000-00000-00000-000-000-000-000-000-000
 Reach # 1.4 ILP Map # ILP # 312 Site # 312

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: SKC4
 Watershed Code: 630-344000-44200-00000-00000-00000-000-000-000-000-000-000
 ILP Map #: ILP #: NID Map #: 104G.056 NID #: 30026 Reach #: 1.4 Site #: 312
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381362.6375294 Ref. Name:
 Date: 2007/06/15 Time: 15:55 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	GE	5.00	7.00	2.00	3.50							4.38	Method I:	25.0	50.0	C	38.33
Wetted Width (m):	GE	5.00	7.00	2.00	3.00							4.25	Method II:	40.0		C	
Pool Depth (m):	GE											0.00					

Wb Depth: .8 1.0 Avg: 0.90 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: A

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	D	S	N	S	S	T
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 2 21-40%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

LWD: N DIST: NA
 LB SHP: V
 Texture: F G C B R A
 RIP: C
 STG: MF

WATER

EMS: Temp: 12 Method: T3 Req #: Cond.: 170 Method: S3
 pH: 7.5 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: scarring .7m Method: GE

MORPHOLOGY

Bed Material: Dominant: R Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 65.0 D (cm): 40.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: ST C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO
 Confinement: EN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo	AirPhoto	UTM (Z/E/N)	Method
104G.056	30028	F	30.0	GE	50	GE	R: F: L: #:		9.381428.6375200	GP3
Comments:										
104G.056	30027	C	15.0	GE	50	GE	R: F: L: #:		9.381397.6375245	GP3
Comments: 25%										

HABITAT QUALITY

Name	Comments

FDIS Site Card

Watershed Code: 630-344000-44200-00000-00000-00000-000-000-000-000-000-000

Reach #

ILP Map #

ILP #

Site

1.4

312

HABITAT QUALITY						
Name			Comments			
Spawning Habitat			poor - no gravel, very steep			
OverWinter Habitat			poor- no pools, very steep			
Rearing Habitat			poor - no pools, very steep			
PHOTOS						
Photo		Foc Lg	Dir	Comments		
R:	100	F: 3338	STD	U	cascade	
R:	100	F: 3339	STD	D		
R:	100	F: 3340	STD	D		
R:	100	F: 3341	STD	X	to RB	
R:	100	F: 3342	STD	X	to RB	
R:	100	F: 3343	STD	U		
R:	100	F: 3344	STD	NS	video of falls	
R:	100	F: 3347	STD	NS	fls looking us	
COMMENTS						
Section			Comments			
CHANNEL			skeeter cr. Enters schaft in a cascade which steepens dramamtically 30m us at outlet to steep step pool morph. ~60m us of outlet a very large falls exists (~30m high). Total barrier to fish even first 30m has no useable habitat.			

FDIS Site Card

Watershed Code: 630-344000-44200-00000-0000-0000-000-000-000-000-000
Reach # 2.1 ILP Map # ILP # Site 500

COMMENTS	
Section	Comments
CHANNEL	lots of scour and debris from flooding that wasn't here in june. Downcutting wider channels, still clear water.

FDIS Site Card

Watershed Code: 630-344000-44200-00000-00000-0000-000-000-000-000-000-000
 Reach # 2.2 ILP Map # ILP # Site # 514

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: SKC2
 Watershed Code: 630-344000-44200-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.046 NID #: 50021 Reach #: 2.2 Site #: 514
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.381657.6374207 Ref. Name:
 Date: 2007/09/17 Time: 16:00 Agency: C660 Crew: MM CD Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	7.00	4.00	1.80	2.00	2.50	1.50	6.00				3.54		Method I: 0.5	C	0.50
Wetted Width (m):	MS	3.00	2.00	1.80	1.00	2.00	1.50	2.00				1.90		Method II:	C	
Pool Depth (m):	MS	0.13	0.10	0.18	0.16	0.12	0.15	0.13				0.14				

Wb Depth: 1.4 Avg: 1.40 Method: MS Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: NS

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	N	S	D	S	S
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: G
 STG: SHR

LWD: A DIST: E
 LB SHP: V
 Texture: F G C B R A
 RIP: G
 STG: SHR

WATER

EMS: Req #: Method: T3 Cond.: 140 Method: S3
 Temp: 9 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs: scars on banks

MORPHOLOGY

Bed Material: Dominant: F Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 0.01 D (cm): 0.01 Morph: LC

Pattern: ME DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N

Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - slow deep pools full of fines
OverWinter Habitat	excellent
Rearing Habitat	excellent - full of cover, very deep continuous pool

COMMENTS

Section	Comments
CHANNEL	beautiful habitat.

FDIS Site Card

Watershed Code: 630-344000-44200-00000-00000-00000-000-000-000-000-000-000
 Reach # 2.3 ILP Map # ILP # Site # 515

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: SKC3
 Watershed Code: 630-344000-44200-00000-00000-00000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.046 NID #: 50029 Reach #: 2.3 Site #: 515
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.382410.6360848 Ref. Name:
 Date: 2007/09/18 Time: 09:00 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	7.30	6.00	3.00	2.20	1.80	2.00	1.50				3.40		Method I: 1.0	C	1.00
Wetted Width (m):	MS	3.10	2.00	2.00	1.50	1.80	2.50	1.50				2.06		Method II:		C
Pool Depth (m):	GE	0.10										0.10				

Wb Depth: Avg: 0.00 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: NS

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	T	S	S	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: V
 Texture: F G C B R A
 RIP: M
 STG: YF

LWD: NS DIST: NS
 LB SHP: S
 Texture: F G C B R A
 RIP: M
 STG: SHR

WATER

EMS: Req #: Method: T3 Cond.: 150 Method: S3
 Temp: 5 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: G Subdom: F O1 B1 B2 B3 D1 D2 D3
 D95: 0.01 D (cm): 0.01 Morph: RP DISTURBANCE INDICATORS
 Pattern: TM C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: PC
 Confinement: UN
 FSZ: Bars: N SIDE DIAG MID SPAN BR

HABITAT QUALITY

Name	Comments
Spawning Habitat	good
OverWinter Habitat	fair - some pools but not really deep fish would be more likely to overwinter in lake
Rearing Habitat	good - current riffle pool, cover

COMMENTS

Section	Comments
CHANNEL	nice fish habitat.

FDIS Site Card

Watershed Code: 630-344000-62300-00000-00000-00000-000-000-000-000-000-000
 Reach # 1.1 ILP Map # ILP # Site # 310

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-00000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: TC1
 Watershed Code: 630-344000-62300-00000-00000-00000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.045 NID #: 30021 Reach #: 1.1 Site #: 310
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: HC Access: H
 GIS UTM (Z.E.N): 9.370883.6367244 Ref. Name:
 Date: 2007/06/15 Time: 12:25 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	GE	31.00	55.00									43.00	Method I:	1.0	1.5	C	1.25
Wetted Width (m):	GE	25.00	30.00									27.50	Method II:			C	
Pool Depth (m):	GE											0.00					

Wb Depth: 1.4 Avg: 1.40 Method: GE Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	T	T	N	N	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

LWD: N DIST: NA
 LB SHP: S RB SHP: S
 Texture: F G C B R A Texture: F G C B R A
 RIP: C RIP: D
 STG: YF STG: PS

CROWN CLOSURE
 0 0%
INSTREAM VEG: N A M V

WATER

EMS: Req #: Method: T3 Cond.: 30 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: 6.9 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 0.01 D (cm): 0.01 Morph: RP

Pattern: SI DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O

Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - no suitable gravel
OverWinter Habitat	poor - no pools, little cover
Rearing Habitat	poor - no pools, little cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3327	STD	D	
R: 100 F: 3328	STD	U	
R: 100 F: 3329	STD	X	

FDIS Site Card

Watershed Code: 630-344000-62300-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.2 ILP Map # ILP # Site # 309

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: TC2
 Watershed Code: 630-344000-62300-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.045 NID #: 30019 Reach #: 1.2 Site #: 309
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: HC Access: H
 GIS UTM (Z.E.N): 9.375923.6368800 Ref. Name:
 Date: 2007/06/15 Time: 09:50 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg	
Channel Width (m):	GE	20.00									20.00		Method I: 2.5	2.0	C	2.25
Wetted Width (m):	GE	25.00	40.00	15.00	35.00						28.75		Method II:		C	
Pool Depth (m):	GE										0.00					

Wb Depth: 1.5 1.2 1.3 Avg: 1.33 Method: GE Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	D	T	T	N	T	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%

INSTREAM VEG: N A M V

LB SHP: S RB SHP: S
 Texture: F G C B R A
 RIP: C RIP: M
 STG: MF STG: MF

WATER

EMS: Req #: Method: T3 Cond.: 50 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: 7.1 Method: GE
 Flood Signs: rafted debris

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 35.0 D (cm): 22.00 Morph: RP

Pattern: IR DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N

Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: FC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - no suitable gravels
OverWinter Habitat	poor - no deep pools, low cover
Rearing Habitat	fair - some slower water, plunge pools

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3317	STD	D	
R: 100 F: 3318	STD	X	
R: 100 F: 3319	STD	U	

FDIS Site Card

Watershed Code: 630-344000-62300-00000-00000-00000-000-000-000-000-000

Reach # 1.2 ILP Map # ILP # Site 309

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 100	F: 3320	STD	U	back water area
R: 100	F: 3321	STD	D	side channel
WILDLIFE				
Group		Observations		
MAM		grizzly tracks		
COMMENTS				
Section		Comments		
CHANNEL		site is at outlet at jackson creek, on alluvial fan so no CW. Emerges from canyon just US at site. High energy with a couple of backwater areas and side channels (braids)		

FDIS Site Card

Watershed Code: 630-344000-62300-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.3 ILP Map # ILP # 311 Site # 311

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: TC3
 Watershed Code: 630-344000-62300-00000-00000-0000-000-000-000-000-000-000
 ILP Map #: ILP #: NID Map #: 104G.045 NID #: 30022 Reach #: 1.3 Site #: 311
 Field UTM (Z.E.N): Method: Site Lg: 200 Method: HC Access: H
 GIS UTM (Z.E.N): 9.373391.6367889 Ref. Name:
 Date: 2007/06/15 Time: 14:25 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg	Gadiant %		Mtd	Avg	
Channel Width (m):	GE	40.00	60.00								50.00	Method I:	2.0	3.0	C	2.50
Wetted Width (m):	GE	12.00	15.00								13.50	Method II:			C	
Pool Depth (m):	GE										0.00					

Wb Depth: 1.8 1.7 Avg: 1.75 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	S	D	N	N	T	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 0 0%
 INSTREAM VEG: N A M V
 RB SHP: S Texture: F G C B R A
 RIP: C STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 40 Method: S3
 pH: 7.2 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 120.0 D (cm): 40.00 Morph: RP DISTURBANCE INDICATORS
 Pattern: IR C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: CO
 Confinement: FC FSZ: Bars: N SIDE DIAG MID SPAN BR

FEATURES

NID Map	NID	Type	Hgt	Method	Lg	Method	Photo			AirPhoto	UTM (Z/E/N)		Method
104G.045	30043	C	4.0	GE	80	GE	R:	F:	L:	#:	9.373962.6367997		GP3
Comments: BEDrock chute with 1-2m drops, 7-8% grade, possible barrier													
NID Map	NID	Type	Hgt	Method	Lg	Method	Photo			AirPhoto	UTM (Z/E/N)		Method
104G.045	30024	TRB		GE		GE	R: 100	F: 3337	L:	#:	9.373524.6367813		GP3
Comments:													

FDIS Site Card

Watershed Code: 630-344000-62300-00000-0000-0000-000-000-000-000-000

Reach # 1.3 ILP Map # ILP # Site 311

FEATURES													
NID Map	NID	Type	Hgt	Method	Lg	Method	Photo			AirPhoto		UTM (Z/E/N)	Method
104G.045	30023	TRB		GE		GE	R: 100	F: 3336	L:		#:	9.373478.6367808	GP3
Comments:													
HABITAT QUALITY													
Name		Comments											
Spawning Habitat		poor											
OverWinter Habitat		poor											
Rearing Habitat		poor -											
PHOTOS													
Photo		Foc Lg	Dir	Comments									
R: 100	F: 3332	STD	D										
R: 100	F: 3333	STD	U										
R: 100	F: 3334	STD	D	floodplain									
R: 100	F: 3335	STD	D	side channel									
R: 100	F: 3336	STD	NS	feature - trib									
R: 100	F: 3337	STD	NS	feature - trib									
COMMENTS													
Section		Comments											
CHANNEL		just at canyon reach											

FDIS Site Card

Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 Reach # 1.1 ILP Map # ILP # Site # 305

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: HICKMAN CREEK Local Name: HC1
 Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.035 NID #: 30011 Reach #: 1.1 Site #: 305
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: HC Access: H
 GIS UTM (Z.E.N): 9.378901.6355054 Ref. Name:
 Date: 2007/06/14 Time: 11:00 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	80.00	70.00									75.00	Method I:	2.0	C	2.00
Wetted Width (m):	GE	15.00	14.00									14.50	Method II:		C	
Pool Depth (m):	GE											0.00				

Wb Depth: 1.5 Avg: 1.50 Method: GE Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	D	S	T	N	N	S	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S Texture: F G C B R A
 RIP: M STG: MF

LWD: F DIST: E
 LB SHP: V Texture: F G C B R A
 RIP: W STG: NA

WATER

EMS: Req #: Method: T3 Cond.: 120 Method: S3
 Temp: 4 Method: P2 Turb.: T M L C Method: GE
 pH: 7.3 Method: GE
 Flood Signs: eroded banks

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 45.0 D (cm): 23.00 Morph: RP
 Pattern: ST DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: O
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - no holding areas, little gravel
OverWinter Habitat	poor - no pools
Rearing Habitat	poor - low cover, fast

WILDLIFE

Group	Observations
MAM	wolverine (?) tracks

COMMENTS

Section	Comments

FDIS Site Card

Watershed Code: 630-344000-89000-00000-0000-0000-000-000-000-000-000	Reach #	ILP Map #	ILP #	Site
	1.1			305

CHANNEL	dynamic reach with wide bar on rb, lb is actively eroding a WL bog. LWD on bars, but none in channel
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FDIS Site Card

Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
Reach # 1.3 ILP Map # ILP # Site 304

W I L D L I F E	
Group	Observations
BIR	sandpiper
C O M M E N T S	
Section	Comments
CHANNEL	site is just ds at small canyon like reach, LB us at site is bedrock cliff, rb is forested. Within site both banks are low and forested. Trib with a wide fan comes in on rb ~50m from top of site.

FDIS Site Card

Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 Reach # 2.2 ILP Map # ILP # Site # 502

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: HICKMAN CREEK Local Name: HC2
 Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.025 NID #: 50023 Reach #: 2.2 Site #: 502
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.377515.6348960 Ref. Name:
 Date: 2007/09/14 Time: 09:30 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	MS	35.00	35.00	35.00	50.00							38.75	Method I:	4.0	C	4.00
Wetted Width (m):	MS	20.00	15.00	10.00	5.00							12.50	Method II:		C	
Pool Depth (m):	MS	0.50										0.50				

Wb Depth: .6 .7 .7 Avg: 0.67 Method: MS Stage: L M H No Vis.Ch.: Intermittent: Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	N	N	D	T	N	T	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE

0 0%

INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: S

Texture: F G C B R A

RIP: NS

STG: INIT

RB SHP: U

Texture: F G C B R A

RIP: S

STG: SHR

WATER

EMS: Req #: Method: T3 Cond.: 60 Method: S3
 Temp: 2 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs: deposited bedrock

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 26.0 D (cm): 16.00 Morph: CP
 Pattern: IM DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: AN
 Coupling: DC
 Confinement: OC Bars: N SIDE DIAG MID SPAN BR
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - no fine gravel
OverWinter Habitat	poor - high gradient, cold, no deep pools
Rearing Habitat	poor - high gradient, cold no pools

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 109 F: 765	STD	U	
R: 109 F: 766	STD	NS	small island
R: 109 F: 767	STD	D	cascade riffle

FDIS Site Card

Watershed Code: 630-344000-89000-00000-0000-0000-000-000-000-000-000

Reach # ILP Map # ILP # Site
 2.2 502

PHOTOS						
Photo		Foc Lg	Dir	Comments		
R:	109	F:	768	STD	NS	right bank
R:	109	F:	770	STD	NS	channels
R:	109	F:	773	STD	U	
R:	109	F:	774	STD	U	
R:	109	F:	775	STD	D	
R:	109	F:	778	STD	NS	trib also Efd
R:	109	F:	779	STD	NS	dry creek bed
R:	109	F:	780	STD	NS	dry creek bed with standing water
COMMENTS						
Section		Comments				
CHANNEL		high flows for season. Evidence of flooding deposited bedrock scouring dry channels.				

FDIS Site Card

Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 Reach # 2.3 ILP Map # ILP # Site # 504

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: HICKMAN CREEK Local Name: HC3
 Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.035 NID #: 50004 Reach #: 2.3 Site #: 504
 Field UTM (Z.E.N): .. Method: Site Lg: 100 Method: GE Access: H
 GIS UTM (Z.E.N): 9.378676.6358066 Ref. Name:
 Date: 2007/09/14 Time: 15:10 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	30.00	30.00	20.00	17.00	15.00						22.40	Method I:	1.5	C	1.50
Wetted Width (m):	GE	25.00	25.00	15.00	11.00	10.00						17.20	Method II:		C	
Pool Depth (m):	GE											0.00				

Wb Depth: .8 Avg: 0.80 Method: MS Stage: L M H No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	T	N	S	N	T	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V

LWD: N DIST: NA
 LB SHP: V RB SHP: S
 Texture: F G C B R A Texture: F G C B R A
 RIP: M RIP: NS
 STG: MF STG: INIT

WATER

EMS: Req #: Method: T3 Cond.: 60 Method: S3
 Temp: 6 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs: eroded banks

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 26.0 D (cm): 15.00 Morph: CP
 Pattern: IM DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: AN
 Coupling: DC
 Confinement: UN Bars: N SIDE DIAG MID SPAN BR
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - high current, large substrate
OverWinter Habitat	poor - no slow deep pools
Rearing Habitat	poor - fast current, not much cover

FDIS Site Card

Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 Reach # 3.1 ILP Map # ILP # Site # 508

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK
 Project Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000-000-000
 Project Code: 17415

WATERSHED

Gazetted Name: HICKMAN CREEK Local Name: TC1
 Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.045 NID #: 50015 Reach #: 3.1 Site #: 508
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.370883.6367244 Ref. Name:
 Date: 2007/09/15 Time: 13:45 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	100.00	90.00	115.00	70.00							93.75	Method I:	4.0	C	4.00
Wetted Width (m):	GE	33.00	50.00	30.00	30.00	25.00						33.60	Method II:		C	
Pool Depth (m):	GE	0.35	0.45	0.30	0.40	0.50						0.40				

Wb Depth:

1.0	1.2
-----	-----

 Avg: 1.10 Method: MS Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: NS

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	N	S	T	N	D	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S Texture: F G C B R A
 RIP: S STG: SHR

WATER

EMS: Req #: Method: T3 Cond.: 10 Method: S3
 Temp: 3 Method: P2 Turb.: T M L C Method: GE
 pH: Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 0.01 D (cm): 0.01 Morph: CPB

Pattern: IM DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: AN

Coupling: PC Bars: N SIDE DIAG MID SPAN BR

Confinement: OC FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - large amounts of sediment, fast current
OverWinter Habitat	poor - no deep pools
Rearing Habitat	fair - small pools with veg and swd

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 111 F: 817	STD	D	
R: 111 F: 818	STD	U	

FDIS Site Card

Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 Reach # 3.3 ILP Map # ILP # 509 Site # 509

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000-000-000

WATERSHED

Gazetted Name: HICKMAN CREEK Local Name: TC3
 Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.045 NID #: 50006 Reach #: 3.3 Site #: 509
 Field UTM (Z.E.N): Method: Site Lg: 200 Method: GE Access: H
 GIS UTM (Z.E.N): 9.373499.6367844 Ref. Name:
 Date: 2007/09/16 Time: 08:50 Agency: C660 Crew: MM RS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg			
Channel Width (m):	GE	80.00	80.00	80.00	80.00	70.00						78.00			
Wetted Width (m):	GE	30.00	25.00	20.00	30.00	25.00						26.00			
Pool Depth (m):	GE	0.60	0.80	0.60								0.67			

	Gadient %	Mtd	Avg
Method I:	2.0	C	2.00
Method II:		C	

Wb Depth: 4.0 3.0 Avg: 3.50 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: NS

Type:	SWD	LWD	B	U	DP	OV	IV
Amount:	S	S	D	N	N	S	N
Loc: P/S/O:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 LB SHP: V RB SHP: V
 Texture: F G C B R A
 RIP: S RIP: M
 STG: SHR STG: MF

LWD: NS DIST: NA
 LB SHP: V
 Texture: F G C B R A
 RIP: S
 STG: SHR

WATER

EMS: Temp: 1 Method: T3 Req #: Cond.: 20 Method: S3
 pH: Method: P2 Turb.: T M L C Method: GE
 Flood Signs: deposit lwd swd Method: GE

MORPHOLOGY

Bed Material: Dominant: B Subdom: R O1 B1 B2 B3 D1 D2 D3
 D95: 0.64 D (cm): 0.25 Morph: CPB DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: AN
 Coupling: PC Bars: N SIDE DIAG MID SPAN BR
 Confinement: OC FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	none - boulders and rock, high velocity
OverWinter Habitat	none - all cascade
Rearing Habitat	none - all cascade

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 111 F: 820	STD	D	
R: 111 F: 821	STD	U	
R: 111 F: 822	STD	NS	finest

FDIS Site Card

Watershed Code: 630-344000-89000-00000-00000-00000-000-000-000-000-000

Reach # ILP Map # ILP # Site
3.3 509

PHOTOS					
Photo		Foc Lg	Dir	Comments	
R:	111	F: 823	STD	NS	failing slope
R:	111	F: 824	STD	NS	muddy deposits below bank
R:	111	F: 825	STD	NS	2m high banks
COMMENTS					
Section		Comments			
SITE CARD		sc2and 3 have mixed up utms on map. This is 2 on map			

FDIS Site Card

Watershed Code: 630-465700-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.1 ILP Map # ILP # 318 Site # 318

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: RASPBERRY CREEK Local Name: WC1
 Watershed Code: 630-465700-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.056 NID #: 30036 Reach #: 1.1 Site #: 318
 Field UTM (Z.E.N): Method: Site Lg: 200 Method: HC Access: H
 GIS UTM (Z.E.N): 9.387904.6381790 Ref. Name:
 Date: 2007/06/17 Time: 10:25 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	width	Avg	Gadient %		Mtd	Avg	
Channel Width (m):	GE	9.00	20.00	50.00	15.00							23.50	Method I:	3.0	4.0	C	3.50
Wetted Width (m):	GE	9.00	16.00	19.00	15.00							14.75	Method II:			C	
Pool Depth (m):	GE											0.00					

Wb Depth: 1.3 1.4 Avg: 1.35 Method: GE Stage: L M H
 No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: M

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	S	S	S	N	N	D	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE

1 1-20%
 INSTREAM VEG: N A M V

LWD: N DIST: NA

LB SHP: V

Texture: F G C B R A

RIP: M

STG: MF

RB SHP: S

Texture: F G C B R A

RIP: M

STG: MF

WATER

EMS: Temp: 5 Method: T3 Req #: Cond.: 50 Method: S3
 pH: 7.0 Method: P2 Turb.: T M L C Method: GE
 Flood Signs: scarring on trees Method: GE

MORPHOLOGY

Bed Material: Dominant: C Subdom: B O1 B1 B2 B3 D1 D2 D3
 D95: 53.0 D (cm): 32.0 Morph: CP DISTURBANCE INDICATORS
 Pattern: SI C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Islands: N
 Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN
 FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - no suitable gravel
OverWinter Habitat	poor
Rearing Habitat	poor - steep and fast, no pools little cover

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3365	STD	D	
R: 100 F: 3366	STD	U	
R: 100 F: 3367	STD	D	to RB

FDIS Site Card

Watershed Code: 630-465700-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.1 ILP Map # ILP # Site 318

PHOTOS				
Photo		Foc Lg	Dir	Comments
R: 100	F: 3368	STD	D	side channel, LB
WILDLIFE				
Group		Observations		
MAM		wolf tracks		
MAM		moose tracks		
MAM		bear scratchings		
COMMENTS				
Section		Comments		
CHANNEL		large cobble boulder cascade stream, some smaller side channels could provide fair habitat but otherwise poor. Us end of study section is a single narrow channel, ds end has extensive bars.		

FDIS Site Card

Watershed Code: 630-659300-00000-00000-0000-0000-000-000-000-000-000-000

Reach #	ILP Map #	ILP #	Site
1.1			314

PHOTOS				
Photo		Foc Lg	Dir	Comments
R:	100	F: 3353	STD	D outlet into lake

FDIS Site Card

Watershed Code: 630-664900-00000-00000-0000-0000-000-000-000-000-000-000
 Reach # 1.1 ILP Map # ILP # Site # 313

PROJECT

Project Name: Schaft Creek
 Stream Name (gaz.): MESS CREEK Project Code: 17415
 Project Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

WATERSHED

Gazetted Name: Local Name: MT1
 Watershed Code: 630-664900-00000-00000-0000-0000-000-000-000-000-000-000
 ILP Map#: ILP #: NID Map #: 104G.036 NID #: 30051 Reach #: 1.1 Site #: 313
 Field UTM (Z.E.N): .. Method: Site Lg: 200 Method: HC Access: H
 GIS UTM (Z.E.N): 9.382410.6360848 Ref. Name:
 Date: 2007/06/16 Time: 08:20 Agency: C660 Crew: KM TS Fish Crd?: Incomplete:

CHANNEL

	Mtd	width	width	width	width	width	width	width	width	width	Avg		Gadient %	Mtd	Avg
Channel Width (m):	GE	15.00	22.00	14.00	17.00						17.00		Method I: 7.0	C	7.00
Wetted Width (m):	GE	9.00	10.00	10.00	12.00						10.25		Method II:		C
Pool Depth (m):	GE										0.00				

Wb Depth: .9 1.2 Avg: 1.05 Method: GE Stage: L M H

No Vis.Ch.: Intermittent:
 Dw: Tribs.:

COVER Total: T

Type:	SWD	LWD	B	U	DP	OV	IV	
Amount:	T	D	S	T	N	S	N	
Loc: P/S/O:	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

CROWN CLOSURE
 1 1-20%
 INSTREAM VEG: N A M V
 RB SHP: S Texture: F G C B R A
 RIP: C STG: MF

WATER

EMS: Method: T3 Req #: Cond.: 80 Method: S3
 Temp: 1 Method: P2 Turb.: T M L C Method: GE
 pH: 7.4 Method: GE
 Flood Signs:

MORPHOLOGY

Bed Material: Dominant: C Subdom: G O1 B1 B2 B3 D1 D2 D3
 D95: 22.0 D (cm): 18.00 Morph: CP DISTURBANCE INDICATORS C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
 Pattern: SI Islands: N Coupling: DC Bars: N SIDE DIAG MID SPAN BR
 Confinement: UN FSZ:

HABITAT QUALITY

Name	Comments
Spawning Habitat	poor - toosteep, no suitable gravel
OverWinter Habitat	poor - no pools
Rearing Habitat	poor - steep no pools

PHOTOS

Photo	Foc Lg	Dir	Comments
R: 100 F: 3348	STD	U	
R: 100 F: 3349	STD	D	

FDIS Site Card

Watershed Code: 630-664900-00000-00000-0000-0000-000-000-000-000-000-000
Reach # 1.1 ILP Map # ILP # Site 313

COMMENTS	
Section	Comments
CHANNEL	steep clear trib to Mess Cr. No pools or shelter from flow. Too cold to shock

FDIS Site Card

Watershed Code: 630-664900-00000-00000-0000-000-000-000-000-000-000-000

Reach # ILP Map # ILP # Site
 2.1 516

PHOTOS						
Photo		Foc Lg	Dir	Comments		
R:	113	F:	858	STD	NS	plunge pool
R:	113	F:	859	STD	D	side channel
R:	113	F:	860	STD	D	side channel
R:	113	F:	861	STD	D	side channel
COMMENTS						
Section		Comments				
CHANNEL		banks very difficult to measure, on riparian lower than carved banks. During freshet river obviously flooded riparian. A lot of evidence of high runoff gravel in riparian, many abandoned channels.				

**APPENDIX 3.2-2
FISH HABITAT ASSESSMENT PROCEDURE DATA FOR
SCHAFT CREEK RECEIVING ENVIRONMENT SITES**

Appendix 3.2-2

Fish Habitat Assessment Procedure Data for Schaft Creek Receiving Environment Sites

Watershed	Station ID	Survey Date	Survey Crew	DS		US		Temp (°C)	pH	Turbidity	Conductivity (µS/cm)	Current Flow	Habitat type	Dist. from start (m)
				easting	northing	Easting	Northing							
Hickman	HC1	14-Sep-07	MM/RS	378883	6355130			5		T	60	M	C	0
Hickman	HC2	14-Sep-07	MM/RS	377515	6348960			2		T	60	M	C	0
Hickman	HC2	14-Sep-07	MM/RS	377515	6348960			2		T	60	M	R	39
Hickman	HC2	14-Sep-07	MM/RS	377515	6348960			2		T	60	M	C	85
Hickman	HC3	14-Sep-07	MM/RS	378676	6358066			6		T	60	M	C	0
Mess	MC1	18-Sep-07	MM/CD	383914	6337796			2		T	80	M	C	0
Mess	MC10	13-Sep-07	KM/MM	385448	6364506	385380	6364623	2.5	8.3	T	193	M	G	0
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	R	0
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	P	42
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	R	46
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	P	72
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	C	73
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	P	83
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	C	86
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	P	105
Mess	MC1a	18-Sep-07	MM/CD	383906	6337537	383950	6337411	5		C	150	M	C	106
Mess	MC2	19-Sep-07	MM/CD	384067	6354975			3		T	210	M	P	0
Mess	MC2	19-Sep-07	MM/CD	384067	6354975			3		T	210	M	R	60.1
Mess	MC2	19-Sep-07	MM/CD	384067	6354975			3		T	210	M	G	91.1
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	G	0
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	P	29.2
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	R	62.5
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	P	79
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	R	112.3
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	P	136.8
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	R	167.6
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	G	184.7
Mess	MC5	17-Sep-07	MM/CD	383652	6394861			5.1		T	120	M	C	0
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	C	0
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	P	12.8
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	C	13.8
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	P	20.5
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	C	22
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	P	44.5
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	R	45.5
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	P	69.1
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	R	70.1
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	P	93.1
Mess Trib	MT1	18-Sep-07	MM/CD	382433	6360888	382351	6360734	4.9		C	90	L	C	97.6
Schaft	SC1	15-Sep-07	MM/RS	375970	6356768	376120	356800	1		T	40	M	C	0
Schaft	SC1	15-Sep-07	MM/RS	378057	6361248			5.5		T	60	M	C	0
Schaft	SC3	15-Sep-07	MM/RS	375723	6366633	375738	6366769	6		T	60	M	C	0
Schaft	SC4	16-Sep-07	MM/RS	379430	6373500			3.5		T	60	M	C	0
Schaft	SC4	16-Sep-07	MM/RS	379430	6373500			3.5		T	60	M		
Schaft	SC4	16-Sep-07	MM/RS	379430	6373500			3.5		T	60	M	R	0
Schaft	SC4	16-Sep-07	MM/RS	379430	6373500			3.5		T	60	M	C	31
Schaft	SC4	16-Sep-07	MM/RS	379430	6373500			3.5		T	60	M	P	57
Schaft	SC4	16-Sep-07	MM/RS	379430	6373500			3.5		T	60	M	G	88
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	LC	0
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	P	0
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	R	25.4
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	P	110
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	R	130.3
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	P	135.9
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	R	148.3
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	P	152.3
Schaft	SC5	17-Sep-07	MM/WD	384276	6392617	384097	6392666	4		T	70	M	C	161.4
Schaft	SC7	16-Sep-07	MM/RS	381743	6384421			4		T	60	M	G	0
Schaft	SC7	16-Sep-07	MM/RS	381743	6384421			4		T	60	M	R	100
Skeeter	SKC1	13-Sep-07	KM/MM/RS/CD	382607	6365340			4.6	7.9	C	128	M	R	0
Skeeter	SKC1	13-Sep-07	KM/MM/RS/CD	382607	6365340			4.6	7.9	C	128	M	P	18.9
Skeeter	SKC1	13-Sep-07	KM/MM/RS/CD	382607	6365340			4.6	7.9	C	128	M	R	22.7
Skeeter	SKC1	13-Sep-07	KM/MM/RS/CD	382607	6365340			4.6	7.9	C	128	M	G	30.9
Skeeter	SKC1	13-Sep-07	KM/MM/RS/CD	382607	6365340			4.6	7.9	C	128	M	P	36.2
Skeeter	SKC1	13-Sep-07	KM/MM/RS/CD	382607	6365340			4.6	7.9	C	128	M	R	82.2
Skeeter	SKC1	13-Sep-07	KM/MM/RS/CD	382607	6365340			4.6	7.9	C	128	M	C	110.9
Skeeter	SKC3	17-Sep-07	MM/CD	381660	6374261			9		C	190	M	P	0
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	R	0
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	P	11.6
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	R	15.6
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	P	25.8
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	R	34.1
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	P	42
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	R	49.5
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	P	52.5
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	R	59.6
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	P	65.3
Skeeter	SKC2	18-Sep-07	MM/RS	381657	6374207			9		C	190	M	R	69.8
Tailings C	TC1	15-Sep-07	MM/RS	370883	6367244			3		T	10	M	P	0
Tailings C	TC1	15-Sep-07	MM/RS	370883	6367244			3		T	10	M	C	12
Tailings C	TC1	15-Sep-07	MM/RS	370883	6367244			3		T	10	M	P	47
Tailings C	TC1	15-Sep-07	MM/RS	370883	6367244			3		T	10	M	C	55
Tailings C	TC1	15-Sep-07	MM/RS	370883	6367244			3		T	10	M	P	75
Tailings C	TC1	15-Sep-07	MM/RS	370883	6367244			3		T	10	M	C	
Tailings C	TC3	16-Sep-07	MM/RS	373499	6367844			1		T	20	M	C	0

(continued)

Appendix 3.2-2

Fish Habitat Assessment Procedure Data for Schaft Creek Receiving Environment Sites (continued)

Watershed	Station ID	Survey Date	Length (m)	Slope (%)	Wetted Depth (m)	Bankfull Depth (m)	Wetted Width (m)	Bankfull Width (m)	% Sand	% Gravel	% Cobble	% Boulder	% Bedrock
Hickman	HC1	14-Sep-07	10	4	0.45	0.9	13.7	19.8	30	20	40	10	
Hickman	HC2	14-Sep-07	39	4	0.3	0.7	10.2	10.4		50	40	10	
Hickman	HC2	14-Sep-07	85	2	0.4	0.55	14	18	25	40	30	5	
Hickman	HC2	14-Sep-07	200	3.5	0.15	0.55	20	25	5	30	60	5	
Hickman	HC3	14-Sep-07	200	1.5	0.6	1.2	28.8	33	5	50	35	10	
Mess	MC1	18-Sep-07	200	2	0.4	1.7	0.4	80	20	20	40	20	
Mess	MC10	13-Sep-07	200	2.5	0.75	1.3	25	70	30	70			
Mess	MC1a	18-Sep-07	42	2	0.2	0.7	5	15	5	15	70	10	
Mess	MC1a	18-Sep-07	46	0.5	0.3	1.3	3	11.3	20	50	19	1	
Mess	MC1a	18-Sep-07	50	2	0.33	1.1	5	12		80	75	5	
Mess	MC1a	18-Sep-07	73	1	0.4	1.5	4.5	12.2	5	40	35	20	
Mess	MC1a	18-Sep-07	83	2	0.2	0.8	4.3	12.4		5	25	70	
Mess	MC1a	18-Sep-07	86	1	0.32	1.1	0.1	12.5		20	40	40	
Mess	MC1a	18-Sep-07	105	1	0.3	1	5	9	15	20	50	15	
Mess	MC1a	18-Sep-07	106	1	0.4	1.25	4.1	8.4	20	10	50	20	
Mess	MC1a	18-Sep-07	130	2	0.22	0.7	5.2	9		20	60	20	
Mess	MC2	19-Sep-07	60.1	1	0.9	2	11	80	80	20			
Mess	MC2	19-Sep-07	91.1	1.5	0.6	1.6	10	30	80	20			
Mess	MC2	19-Sep-07	200	1	0.75	2.5	9	12	80	20			
Mess	MC5	17-Sep-07	29.2	1	0.22	1.68	7.7	29.8	40	5	45	10	
Mess	MC5	17-Sep-07	62.5	0.5	0.35	1.5	4.2	25	90	5	5		
Mess	MC5	17-Sep-07	79	5.5	0.15	0.6	17	20	9	1	90		
Mess	MC5	17-Sep-07	112.3	0.5	0.55	1.7	4	30	50	20	30		
Mess	MC5	17-Sep-07	136.8	0.75	0.1	0.9	6	20	50	30	20		
Mess	MC5	17-Sep-07	167.6	0.2	0.3	0.6	3	15	85	10	5		
Mess	MC5	17-Sep-07	184.7	1	0.24	0.85	2	25	5	20	70	5	
Mess	MC5	17-Sep-07	204.9	0.75	0.25	0.9	2	25	50	10	30	10	
Mess	MC5	17-Sep-07	200	3	1		40	80	10	20	60	10	
Mess Trib	MT1	18-Sep-07	12.8	4	0.1	0.7	7	30	5	10	45	40	
Mess Trib	MT1	18-Sep-07	13.8	3	0.13	0.7	6	30	5	10	60	25	
Mess Trib	MT1	18-Sep-07	20.5	3	0.07	0.5	8	30	5	10	50	35	
Mess Trib	MT1	18-Sep-07	22	0.5	0.12	0.9	7	30	1	9	60	30	
Mess Trib	MT1	18-Sep-07	44.5	4	0.15	0.9	7	30	1	10	49	40	
Mess Trib	MT1	18-Sep-07	45.5	0.5	0.25	0.9	7	30	5	10	50	35	
Mess Trib	MT1	18-Sep-07	69.1	5	0.1	0.8	5	20		30	50	20	
Mess Trib	MT1	18-Sep-07	70.1	0.5	0.12	0.9	3	15	5	10	60	25	
Mess Trib	MT1	18-Sep-07	93.1	4	0.15	0.8	1.5	12			60	40	
Mess Trib	MT1	18-Sep-07	97.6	0	0.35	1.4	1.7	12	2	8	50	40	
Mess Trib	MT1	18-Sep-07	200	4	0.17	1	12		20	30	50		
Schaft	SC1	15-Sep-07	200	4	1	4	15	100			60	40	
Schaft	SC1	15-Sep-07	200		0.5	1.2	70	200	5	20	70	5	
Schaft	SC3	15-Sep-07	200	1.2	0.7	2	30	100	20	30	50		
Schaft	SC4	16-Sep-07	200	1	0.8	1.2	30	220	10	70	20		
Schaft	SC4	16-Sep-07											
Schaft	SC4	16-Sep-07	31	1.5	0.25	0.6	15	220	8	80	2		
Schaft	SC4	16-Sep-07	57	2.5	0.15	0.5	10	220	5	35	60		
Schaft	SC4	16-Sep-07	88	0.5	1.2	1.7	8	220	60	35	5		
Schaft	SC4	16-Sep-07	100	0.5	1.2	1.7	12	220	100				
Schaft	SC5	17-Sep-07	200		0.8	0.2				20	50	30	
Schaft	SC5	17-Sep-07	25.4	0.2	0.35	1.5	11.7	30	90	9	1		
Schaft	SC5	17-Sep-07	110	2	0.25	1.5	3	20	30	20	20	30	
Schaft	SC5	17-Sep-07	126.3	0.5	0.5	1.5	4	8	95	5			
Schaft	SC5	17-Sep-07	135.9	2	0.13	1.5	5	40		35	60	5	
Schaft	SC5	17-Sep-07	148.3	0.5	0.4	1.5	7	40	90	5	5		
Schaft	SC5	17-Sep-07	152.3	2	0.17	1.5	3	50	5	5	90		
Schaft	SC5	17-Sep-07	161.4	1	0.26	1.5	5	20	90	5	5		
Schaft	SC5	17-Sep-07	181.9	4	0.2	1.5	3		10	10	50	30	
Schaft	SC7	16-Sep-07	100	1	0.55	1.2	25	35	10	90			
Schaft	SC7	16-Sep-07	200	1	0.55	1.2	28	35	10	90			
Skeeter	SKC1	13-Sep-07	18.9	2	0.2	0.25	3		5	85	10		
Skeeter	SKC1	13-Sep-07	3.8	0	0.4	0.4	3		40	60			
Skeeter	SKC1	13-Sep-07	13.3	2	0.2	0.3	5.1		5	65	30		
Skeeter	SKC1	13-Sep-07	8.2	1	0.35	0.4	3.1		3.2	40	60		
Skeeter	SKC1	13-Sep-07	5.3	1	0.48	0.6	2.6		3.1	30	50	20	
Skeeter	SKC1	13-Sep-07	46	1.5	0.27	0.7	2.4		2.7	5	75	20	
Skeeter	SKC1	13-Sep-07	28.7	4	0.17	0.65	3.6		4.3	5	55	40	
Skeeter	SKC3	17-Sep-07	200	0	1.1	1.4	4		4	70	30		
Skeeter	SKC2	18-Sep-07	11.6	1	0.1	0.7	3		7	10	90		
Skeeter	SKC2	18-Sep-07	15.6	0	0.18	0.5	2		6	10	90		
Skeeter	SKC2	18-Sep-07	25.8	1	0.14	0.75	2		4	5	90	5	
Skeeter	SKC2	18-Sep-07	34.1	0.5	0.16	2	2		3	10	80	1	9
Skeeter	SKC2	18-Sep-07	42	2	0.12	1.4	1.4		2.2	10	90		
Skeeter	SKC2	18-Sep-07	49.5	0.5	0.35	0.8	1.8		1.8	5	90	5	
Skeeter	SKC2	18-Sep-07	52.5	1	0.22	0.6	1		2		100		
Skeeter	SKC2	18-Sep-07	59.6	0.5	0.25	1	1.5		1.5	10	90		
Skeeter	SKC2	18-Sep-07	65.3	2	0.15	0.6	2		2.5	15	80	5	
Skeeter	SKC2	18-Sep-07	69.8	0.5	0.28	0.7	1.8		1.8	60	35	5	
Skeeter	SKC2	18-Sep-07	83.1	1	0.35	1.5	1.5		1.5	39	60	1	
Tailings C	TC1	15-Sep-07	12	1	0.4	0.45	4.8		6	80	5	10	5
Tailings C	TC1	15-Sep-07	47	4	0.2	0.45	3				50	50	
Tailings C	TC1	15-Sep-07	55	1	0.5	2.5	3						
Tailings C	TC1	15-Sep-07	75	3	0.4	0.5	15	50		30	40	30	
Tailings C	TC1	15-Sep-07	83	1.2	0.8	1.2	15	25	10	40	25	25	
Tailings C	TC1	15-Sep-07		3	0.55	0.65	15	30			50	50	
Tailings C	TC3	16-Sep-07	200	2	0.8	3	30	80		10	20	70	

(continued)

Appendix 3.2-2

Fish Habitat Assessment Procedure Data for Schaft Creek Receiving Environment Sites (continued)

Watershed	Station ID	Survey Date	Pool Type	Max Pool Depth (m)	Min Pool Depth (m)	Barrier Type	T/P	LB Height	RB Height	LB Stab	RB Stab	% Pool	% Boulder	% Instream Vegetation
Hickman	HC1	14-Sep-07						0.55	0.4	S	U		10	
Hickman	HC2	14-Sep-07						0.45	0.4	U	S		15	
Hickman	HC2	14-Sep-07						0.2	0.2	U	S		10	
Hickman	HC2	14-Sep-07						0.45	0.2	U	S		10	
Hickman	HC3	14-Sep-07						0.6	0.55	S	U	20	5	
Mess	MC1	18-Sep-07						1	1.25	S	U		10	
Mess	MC10	13-Sep-07						0.8	0.4	S	U			
Mess	MC1a	18-Sep-07						0.3	0.4	S	S		5	
Mess	MC1a	18-Sep-07	S	0.35	0.27			0.3	0.6	S	S	100		
Mess	MC1a	18-Sep-07						0.28	0.65	S	S			
Mess	MC1a	18-Sep-07	S	0.43	0.27			0.61	0.74	S	S	100	90	
Mess	MC1a	18-Sep-07						0.33	0.7	S	S			
Mess	MC1a	18-Sep-07	S	0.34	0.32			0.3	0.7	S	S	100		
Mess	MC1a	18-Sep-07						0.33	0.74	S	S			
Mess	MC1a	18-Sep-07	S	0.52	0.34			0.3	0.7	S	S	100	50	
Mess	MC1a	18-Sep-07						0.4	0.38	S	S	60	20	
Mess	MC2	19-Sep-07		1	0.4			1	1	S	S	100		5
Mess	MC2	19-Sep-07						0.8	0.8	S	U	5		
Mess	MC2	19-Sep-07						1	1.1	S	S	100		
Mess	MC5	17-Sep-07						1.5	1.25	S	S		5	
Mess	MC5	17-Sep-07	S	0.45	0.17			0.6	1.4	S	S		100	
Mess	MC5	17-Sep-07						0.6	1.2	S	S			
Mess	MC5	17-Sep-07	S	0.6	0.2			0.6	1	U	S	50	1	
Mess	MC5	17-Sep-07						1.15	0.6	S	U		1	
Mess	MC5	17-Sep-07	S	0.4	0.3			1.1	0.6	S	U	80		
Mess	MC5	17-Sep-07						0.5	0.3	S	U		10	
Mess	MC5	17-Sep-07						0.6	0.8	S	U		5	
Mess	MC5	17-Sep-07												
Mess Trib	MT1	18-Sep-07						0.6	0.4	U	U	60	30	
Mess Trib	MT1	18-Sep-07	S	0.19	0.13			0.5	0.32	U	U		25	
Mess Trib	MT1	18-Sep-07						0.4	0.35	U	U	60	35	
Mess Trib	MT1	18-Sep-07	S	0.22	0.1			0.65	0.3	U	U		30	
Mess Trib	MT1	18-Sep-07						0.8	0.5	U	U	70	30	
Mess Trib	MT1	18-Sep-07	S	0.28	0.15			0.63	0.4	U	U		40	
Mess Trib	MT1	18-Sep-07						0.68	0.35	U	U	80	30	
Mess Trib	MT1	18-Sep-07	S	0.3	0.15			0.6	0.5	U	U		25	
Mess Trib	MT1	18-Sep-07						0.65	0.55	U	U	80	20	
Mess Trib	MT1	18-Sep-07	S	0.44	0.3			0.63	0.87	U	U		40	
Mess Trib	MT1	18-Sep-07						0.6	1.5	U	U	100	30	
Schaft	SC1	15-Sep-07								U	U			
Schaft	SC1	15-Sep-07						0.75	0.75	U	U		1	
Schaft	SC3	15-Sep-07						0.75		S	S			
Schaft	SC4	16-Sep-07								U	U			
Schaft	SC4	16-Sep-07								U	U			
Schaft	SC4	16-Sep-07						0.3	0.5	U	U			
Schaft	SC4	16-Sep-07						0.3	0.5	U	U			
Schaft	SC4	16-Sep-07						0.25	0.3	U	U	95		
Schaft	SC4	16-Sep-07						0.25	0.3	U	U	95		
Schaft	SC5	17-Sep-07								S	S			
Schaft	SC5	17-Sep-07		0.55	0.17			1.3	0.7	U	U	40		
Schaft	SC5	17-Sep-07						1.2	0.7	U	U			
Schaft	SC5	17-Sep-07		1	0.3			0.9	0.8	S	U	60		
Schaft	SC5	17-Sep-07						0.3	0.8	U			2	
Schaft	SC5	17-Sep-07		0.7	0.25			0.8	1.1	S	U	90		
Schaft	SC5	17-Sep-07						0.6	1.2	U	U			
Schaft	SC5	17-Sep-07						1.3	1.3	U	U	80		
Schaft	SC5	17-Sep-07						0.6	1.1	U	U			
Schaft	SC7	16-Sep-07						0.55	0.6	U	S			
Schaft	SC7	16-Sep-07						0.55	0.6	S	S	5		
Skeeter	SKC1	13-Sep-07						0.05	0.1	U	U			1
Skeeter	SKC1	13-Sep-07	S	0.4	0.2			0.1	0.1	U	U	20		
Skeeter	SKC1	13-Sep-07						0.1	0.1	U	U			
Skeeter	SKC1	13-Sep-07						0.15	0.2	U	U			10
Skeeter	SKC1	13-Sep-07	S	0.5	0.3			0.3	0.25	U	S	20		5
Skeeter	SKC1	13-Sep-07						0.65	0.45	U	S			5
Skeeter	SKC1	13-Sep-07						0.5	0.65	S	U	5		1
Skeeter	SKC3	17-Sep-07		2				0.1	0.3	S	S	100		30
Skeeter	SKC2	18-Sep-07						0.2	0.35	S	S			
Skeeter	SKC2	18-Sep-07		0.28	0.15			0.1	0.33	S	S			
Skeeter	SKC2	18-Sep-07						0.3	0.55	S	S			
Skeeter	SKC2	18-Sep-07		0.3	0.2			0.45	0.3	S	S	95	5	
Skeeter	SKC2	18-Sep-07						0.25	0.25	S	S			
Skeeter	SKC2	18-Sep-07		0.48	0.3			0.35	0.45	S	S	100		
Skeeter	SKC2	18-Sep-07						0.35	0.35	S	S			
Skeeter	SKC2	18-Sep-07		0.4	0.24			0.6	0.4	S	S	90		
Skeeter	SKC2	18-Sep-07						0.35	0.2	S	S			
Skeeter	SKC2	18-Sep-07		0.32	0.2			0.3	0.35	S	S	100		
Skeeter	SKC2	18-Sep-07						0.3	0.3	S	S	10		
Tailings C	TC1	15-Sep-07		0.45	0.6									
Tailings C	TC1	15-Sep-07		0.45	0.6									
Tailings C	TC1	15-Sep-07												
Tailings C	TC1	15-Sep-07												
Tailings C	TC1	15-Sep-07												
Tailings C	TC3	16-Sep-07						1.2	2.3	S	U		90	

(continued)

Appendix 3.2-2

Fish Habitat Assessment Procedure Data for Schaft Creek Receiving Environment Sites (completed)

Watershed	Station ID	Survey Date	% Overhanging			Canopy (%)	LB Riparian (%)	RB Riparian (%)
			Vegetation	% UC Bank	% LWD			
Hickman	HC1	14-Sep-07	2		5	1	5	1
Hickman	HC2	14-Sep-07	85					80
Hickman	HC2	14-Sep-07	90					80
Hickman	HC2	14-Sep-07	90				5	90
Hickman	HC3	14-Sep-07	50			5	80	
Mess	MC1	18-Sep-07	10	1	2	1	5	100
Mess	MC10	13-Sep-07	3	1		0	80	0
Mess	MC1a	18-Sep-07	10		10	5	30	100
Mess	MC1a	18-Sep-07	20		20	50	40	100
Mess	MC1a	18-Sep-07	30			60	100	100
Mess	MC1a	18-Sep-07	50	5	5	10	60	100
Mess	MC1a	18-Sep-07	15		2	5	50	100
Mess	MC1a	18-Sep-07	7		3	10	30	100
Mess	MC1a	18-Sep-07	10		5	5	25	100
Mess	MC1a	18-Sep-07	5			10	100	100
Mess	MC1a	18-Sep-07	5		10	10	15	100
Mess	MC2	19-Sep-07	1	2	1	1	50	100
Mess	MC2	19-Sep-07		5	10	10	50	100
Mess	MC2	19-Sep-07		5	15	10	10	5
Mess	MC2	19-Sep-07						40
Mess	MC5	17-Sep-07	5		4	2	2	85
Mess	MC5	17-Sep-07	60	6	1	5	40	100
Mess	MC5	17-Sep-07	5			5	5	90
Mess	MC5	17-Sep-07	50		30	5	20	90
Mess	MC5	17-Sep-07	1		5	1	2	50
Mess	MC5	17-Sep-07	15			10	10	100
Mess	MC5	17-Sep-07	5			5	5	90
Mess	MC5	17-Sep-07	10		1	20	1	85
Mess	MC5	17-Sep-07						
Mess Trib	MT1	18-Sep-07	2		1		5	100
Mess Trib	MT1	18-Sep-07	2			1	3	100
Mess Trib	MT1	18-Sep-07	2		1	2	2	100
Mess Trib	MT1	18-Sep-07	2		2	1	2	100
Mess Trib	MT1	18-Sep-07	2		1	1	2	100
Mess Trib	MT1	18-Sep-07	2		3	2	5	100
Mess Trib	MT1	18-Sep-07	2			1	3	100
Mess Trib	MT1	18-Sep-07	2		1	1	3	100
Mess Trib	MT1	18-Sep-07	2		2	3	1	100
Mess Trib	MT1	18-Sep-07	2		1	1	1	100
Mess Trib	MT1	18-Sep-07	2		20	1	1	100
Schaft	SC1	15-Sep-07						
Schaft	SC1	15-Sep-07			5	1	5	1
Schaft	SC3	15-Sep-07	5	5	1	2	5	100
Schaft	SC4	16-Sep-07						
Schaft	SC4	16-Sep-07						
Schaft	SC4	16-Sep-07						2
Schaft	SC4	16-Sep-07				5		2
Schaft	SC4	16-Sep-07				5		2
Schaft	SC4	16-Sep-07				5		5
Schaft	SC5	17-Sep-07	1	5	2	5		
Schaft	SC5	17-Sep-07	20		5	20	10	80
Schaft	SC5	17-Sep-07			5	25	10	80
Schaft	SC5	17-Sep-07			5	25	10	80
Schaft	SC5	17-Sep-07	30		5	20	20	100
Schaft	SC5	17-Sep-07				5		100
Schaft	SC5	17-Sep-07						
Schaft	SC5	17-Sep-07				5		5
Schaft	SC5	17-Sep-07	5			5		
Schaft	SC7	16-Sep-07	15	2	5	10	2	90
Schaft	SC7	16-Sep-07	15	2	10	20	2	100
Skeeter	SKC1	13-Sep-07	5					5
Skeeter	SKC1	13-Sep-07	40					50
Skeeter	SKC1	13-Sep-07	10					5
Skeeter	SKC1	13-Sep-07	10					70
Skeeter	SKC1	13-Sep-07	10	5				80
Skeeter	SKC1	13-Sep-07	5	10		1		60
Skeeter	SKC1	13-Sep-07	10	15	5	5		30
Skeeter	SKC1	13-Sep-07	10	5	5	5		60
Skeeter	SKC1	13-Sep-07	10	5	5	5		50
Skeeter	SKC3	17-Sep-07	10	2	10	5	5	100
Skeeter	SKC2	18-Sep-07	1	5	1	2	1	90
Skeeter	SKC2	18-Sep-07	2	10			10	100
Skeeter	SKC2	18-Sep-07	2	5	1	2	5	100
Skeeter	SKC2	18-Sep-07	80	2		5	80	100
Skeeter	SKC2	18-Sep-07	1	5	3	4	5	100
Skeeter	SKC2	18-Sep-07	5	10		1	2	100
Skeeter	SKC2	18-Sep-07	50	10		5	1	80
Skeeter	SKC2	18-Sep-07	40	15	5	2	1	80
Skeeter	SKC2	18-Sep-07	10	10		1	15	90
Skeeter	SKC2	18-Sep-07	20	10	30		10	100
Skeeter	SKC2	18-Sep-07	80	15	5	10		
Tailings C	TC1	15-Sep-07						
Tailings C	TC1	15-Sep-07						
Tailings C	TC1	15-Sep-07						
Tailings C	TC1	15-Sep-07						
Tailings C	TC1	15-Sep-07						
Tailings C	TC3	16-Sep-07			5	5	2	70
Tailings C	TC3	16-Sep-07						20

APPENDIX 3.2-3
SUMMARY OF SAMPLING EFFORT AND FISH CATCH DATA
AT SCHAFT CREEK RECEIVING ENVIRONMENT SITES

Appendix 3.2-3
Sampling Effort and Fish Catch in Receiving and Reference Environment Watersheds, 2007

WATERSHED	STATION ID	SITE	DATE	MTD	#	H/P	TIME IN	TIME OUT	EF SECONDS	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ	P/W	Species				
																DV	CO	MW	CCG	RB
Hickman	HC1	502	2007/09/14	EF	1	1	1100	1130	633	200	1	O	475	30	4	0	0	0	0	0
Hickman	HC1	305	2007/06/14	EF	1	1	1135	1215	656	200	2	O	500	30	4	0	0	0	0	0
Hickman	HC2	503	2007/09/14	EF	1	1	1345	1400	760	60	2	O	525	30	4	0	0	0	0	0
Hickman	HC2	306	2007/06/14	EF	1	1	1345	1415	435	200	2	O	350	30	4	0	0	0	0	0
Hickman	HC3	504	2007/09/14	EF	1	1	1600	1620	646	100	1	O	500	30	4	0	0	0	0	0
Hickman	HC3	304	2007/06/14	EF	1	1	1000	1030	556	100	2	O	650	30	4	0	0	0	0	0
Mess	MC1	301	2007/06/13	EF	1	1	1315	1345	373	150	2	O	500	30	4	0	0	0	0	0
Mess	MC10	501	2007/09/13	EF	1	1	1350	1418	768	200	2	O	300	40	4	0	0	0	0	9
Mess	MC10	317	2007/06/17	EF	1	1	830	915	704	75	4	O	350	30	4	0	0	0	0	0
Mess	MC1a	599	2007/09/18	EF	1	1	1630	1705	957	160	4	O	450	40	4	0	0	0	0	4
Mess	MC2	302	2007/06/13	EF	1	1	1535	1615	775	180	1.5	O	300	30	4	0	0	0	0	2
Mess	MC5	512	2007/09/17	EF	1	1	955	1015	735	200	2	O	500	40	4	0	0	0	0	8
Mess Trib	MT1	516	2007/09/18	EF	1	1	1205	1250	678	180	2	O	400	40	4	0	0	0	0	0
Schaft	SC1	505	2007/09/15	EF	1	1	855	920	716	110	1	O	900	30	4	0	0	0	0	0
Schaft	SC1	303	2007/06/14	EF	1	1	815	900	671	190	3	O	550	30	4	0	0	0	0	0
Schaft	SC3	507	2007/09/15	EF	1	1	1245	1307	638	150	1	O	450	40	4	0	0	0	0	0
Schaft	SC3	308	2007/06/15	EF	1	1	830	915	506	200	2	O	500	30	4	0	0	0	0	0
Schaft	SC4	510	2007/09/14	EF	1	1	1210	1255	1336	200	1	O	600	40	4	0	0	0	0	15
Schaft	SC5	513	2007/09/17	EF	1	1	1250	1330	672	200	3	O	400	40	4	0	0	0	0	12
Schaft	SC5	320	2007/06/17	EF	1	1	1510	1540	478	120	4	O	650	30	4	0	0	0	0	5
Schaft	SC6	506	2007/09/15	EF	1	1	1015	1045	786	170	1	O	600	40	4	0	0	0	0	0
Schaft	SC6	307	2007/06/14	EF	1	1	1545	1615	435	200	2	O	500	30	4	0	0	0	0	0
Schaft	SC7	511	2007/09/18	EF	1	1	1505	1540	840	200	1	O	600	40	4	0	0	0	0	9
Schaft	SC7	316	2007/06/16	EF	1	1	1445	1515	523	110	4	O	350	30	4	0	0	0	0	4
Skeeter	SKC1	500	2007/09/13	EF	1	1	1215	1245	602	140	3	O	625	30	4	0	0	0	0	15
Skeeter	SKC1	314	2007/06/16	EF	1	1	1015	1100	642	150	3	O	300	30	4	0	0	0	0	8
Skeeter	SKC2	514	2007/09/17	EF	1	1	1640	1720	732	200	4	O	300	40	4	0	0	0	0	0
Skeeter	SKC2	315	2007/06/16	EF	1	1	1300	1330	364	50	10	O	300	30	4	0	0	0	0	0
Skeeter	SKC3	515	2007/09/18	EF	1	1	935	1000	666	150	2	O	450	40	4	0	0	0	0	0
Tailings	TC1	310	2007/06/15	EF	1	1	1230	1300	535	200	2	O	750	30	4	0	0	0	0	0
Tailings	TC1	310	2007/06/15	EF	2	1	1355	1430	349	200	2	O	650	30	4	0	0	0	0	0
Tailings	TC2	309	2007/06/15	EF	1	1	1115	1150	763	200	3	O	700	30	4	0	0	0	0	0
Tailings	TC2	309	2007/06/15	EF	2	1	1000	1050	778	200	4	O	850	30	4	0	0	0	0	2
Tailings	TC3	509	2007/09/16	EF	1	1	1007	1025	605	200	1	O	450	40	4	0	0	0	0	0
Tailings	TC3	311	2007/06/15	EF	1	1	1445	1515	436	150	2	O	650	30	4	0	0	0	0	0
Tailings	TC3	311	2007/06/15	EF	2	1	1110	1200	531	200	2	O	580	30	4	0	0	0	0	0
Walkout	W2	318	2007/06/17	EF	1	1	1110	1130	478	50	2	O	350	30	4	0	0	0	0	7
Yehiniko	Y1	300	2007/06/13	EF	1	1	1030	1100	645	175	2	O	400	50	4	2	1	1	2	1

APPENDIX 3.2-4
SUMMARY OF BIOLOGICAL DATA FOR FISH CAPTURED AT
SCHAFT CREEK RECEIVING ENVIRONMENT SITES

**Appendix 3.2-4
Summary of Biological Data for Fish Captured at Schaft Creek Receiving Environment Sites**

WATERSHED	STATION ID	SITE	DATE	MTD	#	H/P	SPECIES	LENGTH	WEIGHT	LN	LN	LN	AGE	GENETIC		COMMENT	PHOTOS		
								(mm)	(g)	(LENGTH)	(WEIGHT)	CONDITION	(CONDITION)	STRUCTURE	SAMPLE #			AGE	STRUCTURE
Mess	MC10	501	2007/09/13	EF	1	1	RB	122	24.5	4.8	3.2	1.35	0.30	FR	1	3			
Mess	MC10	501	2007/09/13	EF	1	1	RB	128	26.4	4.9	3.3	1.26	0.23	FR	2	2			
Mess	MC10	501	2007/09/13	EF	1	1	RB	101	12.2	4.6	2.5	1.18	0.17	FR	3	2			
Mess	MC10	501	2007/09/13	EF	1	1	RB	73	4.6	4.3	1.5	1.18	0.17	FR	4	0			
Mess	MC10	501	2007/09/13	EF	1	1	RB	88	7.5	4.5	2.0	1.10	0.10	FR	5	1			
Mess	MC10	501	2007/09/13	EF	1	1	RB	88	7.8	4.5	2.1	1.14	0.14	FR	6	1			
Mess	MC10	501	2007/09/13	EF	1	1	RB	80	5.1	4.4	1.6	1.00	0.00	FR	7	0			
Mess	MC10	501	2007/09/13	EF	1	1	RB	73	4.7	4.3	1.5	1.21	0.19	FR	8	0			
Mess	MC10	501	2007/09/13	EF	1	1	RB	35	0.4	3.6	-0.9	0.93	-0.07	FR	9				
Mess	MC1a	599	2007/09/18	EF	1	1	RB	280	200	5.6	5.3	0.91	-0.09	SC	1	4	FR	1	>200g
Mess	MC1a	599	2007/09/18	EF	1	1	RB	272	200	5.6	5.3	0.99	-0.01	SC	2	6	FR	2	>200g
Mess	MC1a	599	2007/09/18	EF	1	1	RB	212	200	5.4	5.3	2.10	0.74	SC	3	4	FR	3	>200g
Mess	MC1a	599	2007/09/18	EF	1	1	RB	187	200	5.2	5.3	3.06	1.12	SC	4	3	FR	4	>200g
Mess	MC2	302	2007/06/13	EF	1	1	RB	54	2	4.0	0.7	1.27	0.24						
Mess	MC5	512	2007/09/17	EF	1	1	RB	195	73.4	5.3	4.3	0.99	-0.01	FR	1	3			
Mess	MC5	512	2007/09/17	EF	1	1	RB	204	87.1	5.3	4.5	1.03	0.03	FR	2	5			
Mess	MC5	512	2007/09/17	EF	1	1	RB	161	49.4	5.1	3.9	1.18	0.17	FR	3	4			
Mess	MC5	512	2007/09/17	EF	1	1	RB	165	47.7	5.1	3.9	1.06	0.06	FR	4	3			
Mess	MC5	512	2007/09/17	EF	1	1	RB	173	58.8	5.2	4.1	1.14	0.13	FR	5	4			
Mess	MC5	512	2007/09/17	EF	1	1	RB	173	55.1	5.2	4.0	1.06	0.06	FR	6	4			
Mess	MC5	512	2007/09/17	EF	1	1	RB	148	33.8	5.0	3.5	1.04	0.04	FR	7	3			
Mess	MC5	512	2007/09/17	EF	1	1	RB	154	37.5	5.0	3.6	1.03	0.03	FR	8	3			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	159	43.2	5.1	3.8	1.07	0.07	FR	1	2			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	167	54.4	5.1	4.0	1.17	0.16	FR	2	2			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	160	44.8	5.1	3.8	1.09	0.09	FR	3	3			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	176	66.2	5.2	4.2	1.21	0.19	FR	4	4			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	191	76.7	5.3	4.3	1.10	0.10	FR	5	3			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	171	51.7	5.1	3.9	1.03	0.03	FR	6	3			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	170	53.7	5.1	4.0	1.09	0.09	FR	7	3			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	123	19.3	4.8	3.0	1.04	0.04	FR	8	1			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	117	16.5	4.8	2.8	1.03	0.03	FR	9	3			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	117	17	4.8	2.8	1.06	0.06	FR	10	1			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	118	15.9	4.8	2.8	0.97	-0.03	FR	11	1			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	127	24.1	4.8	3.2	1.18	0.16	FR	12	2			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	103	13.4	4.6	2.6	1.23	0.20	FR	13	2			
Schaft	SC4	510	2007/09/14	EF	1	1	RB	132	25.4	4.9	3.2	1.10	0.10	FR	14	4			very dark.
Schaft	SC4	510	2007/09/14	EF	1	1	RB	116	17.8	4.8	2.9	1.14	0.13	FR	15	2			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	187	75.8	5.2	4.3	1.16	0.15	FR	1	3			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	208	93.2	5.3	4.5	1.04	0.04	FR	2	4			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	189	49.7	5.2	3.9	0.74	-0.31	FR	3	3			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	149	31.8	5.0	3.5	0.96	-0.04	FR	4	3			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	134	24.8	4.9	3.2	1.03	0.03	FR	5	2			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	172	32.7	5.1	3.5	0.64	-0.44	FR	6	3			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	118	18.9	4.8	2.9	1.15	0.14	FR	7	3			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	127	23.8	4.8	3.2	1.16	0.15	FR	8	2			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	132	21.9	4.9	3.1	0.95	-0.05	FR	9	3			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	122	19.7	4.8	3.0	1.08	0.08	FR	10	2			
Schaft	SC5	513	2007/09/17	EF	1	1	RB	137	30.1	4.9	3.4	1.17	0.16	FR	11	3			missing scales below dorsal
Schaft	SC5	513	2007/09/17	EF	1	1	RB	116	17.4	4.8	2.9	1.11	0.11	FR	12	2			
Schaft	SC5	320	2007/06/17	EF	1	1	RB	128	25.5	4.9	3.2	1.22	0.20	FR	1	2			
Schaft	SC5	320	2007/06/17	EF	1	1	RB	127	23.2	4.8	3.1	1.13	0.12	FR	2	2			
Schaft	SC5	320	2007/06/17	EF	1	1	RB	181	68.9	5.2	4.2	1.16	0.15	FR	3	3			
Schaft	SC5	320	2007/06/17	EF	1	1	RB	164	55.5	5.1	4.0	1.26	0.23	FR	4	3			
Schaft	SC5	320	2007/06/17	EF	1	1	RB	125	21.7	4.8	3.1	1.11	0.11	FR	5	2			
Schaft	SC7	511	2007/09/18	EF	1	1	RB	169	54.2	5.1	4.0	1.12	0.12	FR	1	3			
Schaft	SC7	511	2007/09/18	EF	1	1	RB	172	53.9	5.1	4.0	1.06	0.06	FR	2	2			
Schaft	SC7	511	2007/09/18	EF	1	1	RB	220	119.1	5.4	4.8	1.12	0.11	FR	3	4			
Schaft	SC7	511	2007/09/18	EF	1	1	RB	139	33.3	4.9	3.5	1.24	0.22	FR	4	2			
Schaft	SC7	511	2007/09/18	EF	1	1	RB	119	18.4	4.8	2.9	1.09	0.09	FR	5	2			
Schaft	SC7	511	2007/09/18	EF	1	1	RB	88	7.5	4.5	2.0	1.10	0.10	FR	6				
Schaft	SC7	511	2007/09/18	EF	1	1	RB	114	14	4.7	2.6	0.94	-0.06	FR	7	2			
Schaft	SC7	511	2007/09/18	EF	1	1	RB	76	4.9	4.3	1.6	1.12	0.11	FR	8	0			
Schaft	SC7	511	2007/09/18	EF	1	1	RB	85	6.2	4.4	1.8	1.01	0.01	FR	9	0			
Schaft	SC7	316	2007/06/16	EF	1	1	RB	169	46.4	5.1	3.8	0.96	-0.04	FR	1	3			

(continued)

Appendix 3.2-4

Summary of Biological Data for Fish Captured at Schaft Creek Receiving Environment Sites (completed)

WATERSHED	STATION ID	SITE	DATE	MTD	#	H/P	SPECIES	LENGTH	WEIGHT	LN	LN	LN	AGE	GENETIC		COMMENT	PHOTOS	
								(mm)	(g)	(LENGTH)	(WEIGHT)	CONDITION	(CONDITION)	STRUCTURE	SAMPLE #			AGE
Schaft	SC7	316	2007/06/16	EF	1	1	RB	76	5.7	4.3	1.7	1.30	0.26	FR	2	2		
Schaft	SC7	316	2007/06/16	EF	1	1	RB	77	5.4	4.3	1.7	1.18	0.17	FR	3	1		
Schaft	SC7	316	2007/06/16	EF	1	1	RB	71	4.7	4.3	1.5	1.31	0.27	FR	4	0		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	137	30.6	4.9	3.4	1.19	0.17	FR	1	2	parasite on dorsal fin	
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	148	42.8	5.0	3.8	1.32	0.28	FR	2	2		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	175	59.6	5.2	4.1	1.11	0.11	FR	3	2		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	120	23.2	4.8	3.1	1.34	0.29	FR	4	2		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	107	13.6	4.7	2.6	1.11	0.10	FR	5	1		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	101	11.4	4.6	2.4	1.11	0.10	FR	6	1		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	98	10.2	4.6	2.3	1.08	0.08	FR	7	1	parasite on dorsal fin	
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	103	10.9	4.6	2.4	1.00	0.00	FR	8	1		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	134	24.1	4.9	3.2	1.00	0.00	FR	9	2		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	90	7.7	4.5	2.0	1.06	0.05	FR	10	1		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	70	3.8	4.2	1.3	1.11	0.10	FR	11			
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	51	2.1	3.9	0.7	1.58	0.46	FR	12			
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	80	7.6	4.4	2.0	1.48	0.39	FR	13	1		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	81	7.1	4.4	2.0	1.34	0.29	FR	14	1		
Skeeter	SKC1	500	2007/09/13	EF	1	1	RB	131	24	4.9	3.2	1.07	0.07	FR	15	1		
Skeeter	SKC1	314	2007/06/16	EF	1	1	RB	161	46.2	5.1	3.8	1.11	0.10	FR	1	3		
Skeeter	SKC1	314	2007/06/16	EF	1	1	RB	63	2.8	4.1	1.0	1.12	0.11	FR	2	0		
Skeeter	SKC1	314	2007/06/16	EF	1	1	RB	85	6.5	4.4	1.9	1.06	0.06	FR	3	1		
Skeeter	SKC1	314	2007/06/16	EF	1	1	RB	63	3.1	4.1	1.1	1.24	0.21					
Skeeter	SKC1	314	2007/06/16	EF	1	1	RB	71	3.8	4.3	1.3	1.06	0.06					
Skeeter	SKC1	314	2007/06/16	EF	1	1	RB	61	2.9	4.1	1.1	1.28	0.25	FR	4			
Skeeter	SKC1	314	2007/06/16	EF	1	1	RB	79	6.1	4.4	1.8	1.24	0.21	FR	5	1		
Skeeter	SKC1	314	2007/06/16	EF	1	1	RB	65	3.2	4.2	1.2	1.17	0.15	FR	6	1		
Tailings	TC2	309	2007/06/15	EF	2	1	RB	233	158.5	5.5	5.1	1.25	0.23	FR	1	4		
Tailings	TC2	309	2007/06/15	EF	2	1	RB	171	64.7	5.1	4.2	1.29	0.26	FR	2	3		
Walkout	W2	318	2007/06/17	EF	1	1	RB	243	173.9	5.5	5.2	1.21	0.19	FR	1	4		
Walkout	W2	318	2007/06/17	EF	1	1	RB	219	122.3	5.4	4.8	1.16	0.15	FR	2	4		
Walkout	W2	318	2007/06/17	EF	1	1	RB	141	37.8	4.9	3.6	1.35	0.30	FR	3	1		
Walkout	W2	318	2007/06/17	EF	1	1	RB	149	42.3	5.0	3.7	1.28	0.25	FR	4	2		
Walkout	W2	318	2007/06/17	EF	1	1	RB	150	37.4	5.0	3.6	1.11	0.10	FR	5	3		
Walkout	W2	318	2007/06/17	EF	1	1	RB	123	22.2	4.8	3.1	1.19	0.18	FR	6	2		
Walkout	W2	318	2007/06/17	EF	1	1	RB	123	22.2	4.8	3.1	1.19	0.18	FR	7	1		
Yehiniko	Y1	300	2007/06/13	EF	1	1	CCG	114	13.8	4.7	2.6	0.93	-0.07					
Yehiniko	Y1	300	2007/06/13	EF	1	1	CCG	58	1.9	4.1	0.6	0.97	-0.03					
Yehiniko	Y1	300	2007/06/13	EF	1	1	CO	37	0.5	3.6	-0.7	0.99	-0.01					
Yehiniko	Y1	300	2007/06/13	EF	1	1	DV	123	17.1	4.8	2.8	0.92	-0.08	FR	2	2		
Yehiniko	Y1	300	2007/06/13	EF	1	1	DV	85	6.8	4.4	1.9	1.11	0.10	FR	3	1		
Yehiniko	Y1	300	2007/06/13	EF	1	1	MW	55	1.6	4.0	0.5	0.96	-0.04					
Yehiniko	Y1	300	2007/06/13	EF	1	1	RB	92	7.9	4.5	2.1	1.01	0.01	FR	1	1		

**APPENDIX 3.2-5
FISH SAMPLING CARDS COMPLETED FOR SCHAFT CREEK
RECEIVING ENVIRONMENT SITES**

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 600-324400-00000-00000-0000-0000-000-000-000-000-000

1.1

WATERBODY																
Gazetted Name: YEHINIKO CREEK							Local: YC1									
Project Code: 600-000000-00000-00000-0000-000-000-000-000-000-0																
WS Code: 600-324400-00000-00000-0000-000-000-000-000-000-000																
Waterbody ID:				ILP Map #:				ILP #:				Reach #: 1.1 -				
Project ID: 17415				Lake/Stream: S				Lake From Date:								
Fish Permit #: SM07-34821			Date: 2007/06/13			To: 2007/06/13			Agency: C660			Crew: KM TS			Resample: <input type="checkbox"/>	
SITE / METHOD																
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment						
300	104G.073	30001	9			GP3	EF	1	6	90	T					
A. GEAR SETTINGS																
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment									
300	EF	1	2007/06/13	10:30	2007/06/13	11:00										
C. ELECTROFISHER SPECIFICATIONS																
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model					
300	EF	1	1	O	645	175.0	2.0	400	50	4	SR	LR-24				
FISH SUMMARY																
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)		FishAct	Comment						
300	EF	1	1	CO	J	1	37	37	R							
300	EF	1	1	MW	J	1	56	56	R							
300	EF	1	1	CCG	J	2	58	114	R							
300	EF	1	1	RB	J	1	92	92	R							
300	EF	1	1	DV	J	2	85	123	R							
INDIVIDUAL FISH DATA																
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age			Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age			Str/Smpl#				
300	EF	1	1	CCG	114	13.8	U	U								
300	EF	1	1	RB	92	7.9	U	U	SC	1		FR	1			
300	EF	1	1	CCG	58	1.9	U	U								
300	EF	1	1	DV	123	17.1	U	U	SC	2		FR	2			
300	EF	1	1	CO	37	.5	U	U								
300	EF	1	1	MW	55	1.6	U	U								
300	EF	1	1	DV	85	6.8	U	U	SC	3		FR	3			

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

1.0

WATERBODY													
Gazetted Name: MESS CREEK						Local: MC10							
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0													
WS Code: 630-000000-00000-00000-0000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 1 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/06/17			To: 2007/06/17			Agency: C660		Crew: KM TS		Resample: <input type="checkbox"/>
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment			
317	104G.036	30035	9			GP3	EF	1	5	150	T		
A. GEAR SETTINGS													
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment						
317	EF	1	2007/06/17	08:30	2007/06/17	09:15							
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model		
317	EF	1	1	O	704	75.0	4.0	350	30	4	SR LR-24		
FISH SUMMARY													
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment				
317	EF	1	1	NFC		0							

FDIS Fish Card

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000 Reach # 1.5
 ILP Map # ILP #

WATERBODY													
Gazetted Name: MESS CREEK						Local: MC5							
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0													
WS Code: 630-000000-00000-00000-0000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 1.5 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/06/17			To: 2007/06/17			Agency: C660		Crew: KM TS		Resample: <input type="checkbox"/>
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO		Temp	Cond	Turbid	Comment		
319	104G.066	30039	9			GP3	VO	1	8	110	T		
319	104G.066	30039	9			GP3	EF	1	8	110	T		
A. GEAR SETTINGS													
Site#	MTD/NO		H/P	Date In	Time In	Date Out	Time Out	Comment					
319	EF	1	1	2007/06/17	13:45	2007/06/17	14:15						
319	VO	1	1	2007/06/17	13:45	2007/06/17	14:15						
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO		H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model	
319	EF	1	1	O	547	120.0	4.0	380	30	4	SR	LR-24	
FISH SUMMARY													
Site#	MTD/NO		H/P	Species	Stage	Age	Total #	Lgth (Min/Max)		FishAct	Comment		
319	EF	1	1	NFC			0						
319	VO	1	1	RB	J		2	100	200	R			

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-000

2.0

WATERBODY															
Gazetted Name: MESS CREEK							Local: MC10								
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0															
WS Code: 630-000000-00000-00000-0000-000-000-000-000-000-000															
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 2 -					
Project ID: 17415				Lake/Stream: S				Lake From Date:							
Fish Permit #: SM07-34821			Date: 2007/09/13			To: 2007/09/13			Agency: C660		Crew: KM MM RS		Resample: <input type="checkbox"/>		
SITE / METHOD															
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment					
501	104G.036	50001	9			GP3	EF 1	7.5	193	T					
A. GEAR SETTINGS															
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment								
501	EF 1	1	2007/09/13	13:50	2007/09/13	14:18									
C. ELECTROFISHER SPECIFICATIONS															
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model				
501	EF	1	1	O	768	200.0	2.0	300	40	4	SR	LR-24			
FISH SUMMARY															
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment						
501	EF	1	1	RB	J	9	35 128	R							
INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
501	EF	1	1	RB	122	24.5	U	U	SC	1		FR	1		
501	EF	1	1	RB	128	26.4	U	U	SC	2		FR	2		
501	EF	1	1	RB	101	12.3	U	U	SC	3		FR	3		
501	EF	1	1	RB	73	4.6	U	U	SC	4		FR	4		
501	EF	1	1	RB	88	7.5	U	U	SC	5		FR	5		
501	EF	1	1	RB	88	7.8	U	U	SC	6		FR	6		
501	EF	1	1	RB	80	5.1	U	U	SC	7		FR	7		
501	EF	1	1	RB	73	4.7	U	U	SC	8		FR	8		
501	EF	1	1	RB	35	.4	U	U	SC	9		FR	9		

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-000000-00000-00000-0000-000-000-000-000-000-000

2.5

WATERBODY															
Gazetted Name: MESS CREEK							Local: MC5								
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0															
WS Code: 630-000000-00000-00000-0000-000-000-000-000-000-000															
Waterbody ID:				ILP Map #:				ILP #:				Reach #: 2.5 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:							
Fish Permit #: SM07-34821			Date: 2007/09/17			To: 2007/09/17			Agency: C660			Crew: MM RS			Resample: <input type="checkbox"/>
SITE / METHOD															
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment					
512	104G.066	50026	9			GP3	EF 1	5	120	T					
A. GEAR SETTINGS															
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment								
512	EF 1	1	2007/09/17	09:55	2007/09/17	10:15									
C. ELECTROFISHER SPECIFICATIONS															
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model				
512	EF	1	1	O	735	200.0	2.0	500	40	4	SR LR-24				
FISH SUMMARY															
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment						
512	EF	1	1	RB	A	8	154 204	R							
INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
512	EF	1	1	RB	195	73.4	U	U	SC	1		FR	1		
512	EF	1	1	RB	204	87.1	U	U	SC	2		FR	2		
512	EF	1	1	RB	161	49.4	U	U	SC	3		FR	3		
512	EF	1	1	RB	165	47.7	U	U	SC	4		FR	4		
512	EF	1	1	RB	173	58.8	U	U	SC	5		FR	5		
512	EF	1	1	RB	173	55.1	U	U	SC	6		FR	6		
512	EF	1	1	RB	148	33.8	U	U	SC	7		FR	7		
512	EF	1	1	RB	154	37.5	U	U	SC	8		FR	8		

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000

1.1

WATERBODY													
Gazetted Name: SCHAFT CREEK						Local: SC1							
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0													
WS Code: 630-344000-00000-00000-0000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 1.1 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/06/14			To: 2007/06/14			Agency: C660		Crew: KM TS		Resample: <input type="checkbox"/>
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment			
303	104G.035	30007	9			GP3	EF	1	3	70	T		
A. GEAR SETTINGS													
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment						
303	EF	1	2007/06/14	08:15	2007/06/14	09:00							
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model		
303	EF	1	1	O	671	190.0	3.0	550	30	4	SR	LR-24	
FISH SUMMARY													
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment				
303	EF	1	1	NFC		0							

FDIS Fish Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.5 ILP Map # ILP #

WATERBODY															
Gazetted Name: SCHAFT CREEK						Local: SC5									
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0															
WS Code: 630-344000-00000-00000-0000-000-000-000-000-000-000															
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 1.5 -					
Project ID: 17415				Lake/Stream: S				Lake From Date:							
Fish Permit #: SM07-34821			Date: 2007/06/17			To: 2007/06/17			Agency: C660		Crew: KM TS		Resample: <input type="checkbox"/>		
SITE / METHOD															
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment					
320	104G.066	30041	9			GP3	EF 1	7	90	M					
A. GEAR SETTINGS															
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment								
320	EF 1	1	2007/06/17	15:10	2007/06/17	15:40									
C. ELECTROFISHER SPECIFICATIONS															
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model				
320	EF	1	1	O	478	120.0	4.0	650	30	4	SR LR-24				
FISH SUMMARY															
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment						
320	EF	1	1	RB	J	5	125 181	R							
INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
320	EF	1	1	RB	128	25.5	U	U	SC	1		FR	1		
320	EF	1	1	RB	127	23.2	U	U	SC	2		FR	2		
320	EF	1	1	RB	181	69.0	U	U	SC	3		FR	3		
320	EF	1	1	RB	164	55.5	U	U	SC	4		FR	4		
320	EF	1	1	RB	125	21.8	U	U	SC	5		FR	5		

FDIS Fish Card

Watershed Code: 630-344000-00000-00000-0000-000-000-000-000-000-000-000 Reach # 1.7
 ILP Map # ILP #

WATERBODY															
Gazetted Name: SCHAFT CREEK							Local: SC7								
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0															
WS Code: 630-344000-00000-00000-0000-000-000-000-000-000-000															
Waterbody ID:				ILP Map #:				ILP #:				Reach #: 1.7 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:							
Fish Permit #: SM07-34821			Date: 2007/06/16			To: 2007/06/16			Agency: C660			Crew: KM TS		Resample: <input type="checkbox"/>	
SITE / METHOD															
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment					
316	104G.066	30033	9			GP3	EF 1	7	90	T					
A. GEAR SETTINGS															
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment								
316	EF	1	2007/06/16	14:45	2007/06/16	15:15									
C. ELECTROFISHER SPECIFICATIONS															
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model				
316	EF	1	1	O	523	110.0	4.0	350	30	4	SR LR-24				
FISH SUMMARY															
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment						
316	EF	1	1	RB	J	4	71 169	R							
INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
316	EF	1	1	RB	169	46.4	U	U	SC	1		FR	1		
316	EF	1	1	RB	76	5.7	U	U	SC	2		FR	2		
316	EF	1	1	RB	77	5.3	U	U	SC	3		FR	3		
316	EF	1	1	RB	71	4.7	U	U	SC	4		FR	4		

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000

2.1

WATERBODY																
Gazetted Name: SCHAFT CREEK							Local: SC1									
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0																
WS Code: 630-344000-00000-00000-0000-000-000-000-000-000-000																
Waterbody ID:				ILP Map #:				ILP #:				Reach #: 2.1 -				
Project ID: 17415				Lake/Stream: S				Lake From Date:								
Fish Permit #: SM07-34821			Date: 2007/09/13			To: 2007/09/13			Agency: C660			Crew: MM RS			Resample: <input type="checkbox"/>	
SITE / METHOD																
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment						
500	104G.046	50035	9			GP3	EF	1	5	128	C					
A. GEAR SETTINGS																
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment									
500	EF	1	2007/09/13	12:15	2007/09/13	12:45										
C. ELECTROFISHER SPECIFICATIONS																
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model					
500	EF	1	1	O	602	140.0	3.0	625	30	4	SR	LR-24				
FISH SUMMARY																
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment							
500	EF	1	1	RB	J	15	15	175	R							
INDIVIDUAL FISH DATA																
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment	
								Str/Smpl#	Age		Str/Smpl#					
500	EF	1	1	RB	137	30.6	U	U	SC	1		FR	1		parasite on dorsal fin	
500	EF	1	1	RB	148	42.8	U	U	SC	2		FR	2			
500	EF	1	1	RB	175	59.6	U	U	SC	3		FR	3			
500	EF	1	1	RB	120	23.3	U	U	SC	4		FR	4			
500	EF	1	1	RB	107	13.7	U	U	SC	5		FR	5			
500	EF	1	1	RB	101	11.4	U	U	SC	6		FR	6			
500	EF	1	1	RB	98	10.2	U	U	SC	7		FR	7		parasite on dorsal fin	
500	EF	1	1	RB	103	10.9	U	U	SC	8		FR	8			
500	EF	1	1	RB	134	24.1	U	U	SC	9		FR	9			
500	EF	1	1	RB	90	7.7	U	U	SC	10		FR	10			
500	EF	1	1	RB	70	3.8	U	U	SC	11		FR	11			
500	EF	1	1	RB	51	2.1	U	U	SC	12		FR	12			
500	EF	1	1	RB	80	7.6	U	U	SC	13		FR	13			
500	EF	1	1	RB	81	7.1	U	U	SC	14		FR	14			
500	EF	1	1	RB	131	24.0	U	U	SC	15		FR	15			

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000

2.3

WATERBODY												
Gazetted Name: SCHAFT CREEK						Local: SC3						
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0												
WS Code: 630-344000-00000-00000-0000-000-000-000-000-000-000												
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 2.3 -		
Project ID: 17415				Lake/Stream: S				Lake From Date:				
Fish Permit #: SM07-34821			Date: 2007/09/15			To: 2007/09/15		Agency: C660		Crew: MM RS		Resample: <input type="checkbox"/>
SITE / METHOD												
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO		Temp	Cond	Turbid	Comment	
507	104G.045	50009	9			GP3	EF	1	6	60	T	
A. GEAR SETTINGS												
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment					
507	EF	1	2007/09/15	12:45	2007/09/15	13:07						
C. ELECTROFISHER SPECIFICATIONS												
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model	
507	EF	1	1	O	638	150.0	1.0	450	40	4	SR LR-24	
FISH SUMMARY												
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment			
507	EF	1	1	NFC		0						

FDIS Fish Card

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000
 Reach #: 2.4 ILP Map # ILP #

WATERBODY													
Gazetted Name: SCHAFT CREEK						Local: SC4							
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0													
WS Code: 630-344000-00000-00000-0000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 2.4 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/09/14			To: 2007/09/14			Agency: C660		Crew: MM RS		Resample: <input type="checkbox"/>

SITE / METHOD												
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment		
510	104G.045	50014	9			GP3	EF	1	3	60	T	

A. GEAR SETTINGS												
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment					
510	EF	1	1	2007/09/14	12:10	2007/09/14	12:55					

C. ELECTROFISHER SPECIFICATIONS											
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model
510	EF	1	1	O	1336	200.0	1.0	600	40	4	SR LR-24

FISH SUMMARY											
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment		
510	EF	1	1	RB	J	15	103 191	R			

INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
510	EF	1	1	RB	159	43.2	U	U	SC	1		FR	1		
510	EF	1	1	RB	167	54.4	U	U	SC	2		FR	2		
510	EF	1	1	RB	160	44.8	U	U	SC	3		FR	3		
510	EF	1	1	RB	176	66.2	U	U	SC	4		FR	4		
510	EF	1	1	RB	191	76.7	U	U	SC	5		FR	5		
510	EF	1	1	RB	171	51.7	U	U	SC	6		FR	6		
510	EF	1	1	RB	170	53.7	U	U	SC	7		FR	7		
510	EF	1	1	RB	123	19.3	U	U	SC	8		FR	8		
510	EF	1	1	RB	217	16.5	U	U	SC	9		FR	9		
510	EF	1	1	RB	117	17.0	U	U	SC	10		FR	10		
510	EF	1	1	RB	118	15.9	U	U	SC	11		FR	11		
510	EF	1	1	RB	127	24.1	U	U	SC	12		FR	12		
510	EF	1	1	RB	103	13.4	U	U	SC	13		FR	13		
510	EF	1	1	RB	132	25.4	U	U	SC	14		FR	14		
510	EF	1	1	RB	116	17.8	U	U	SC	15		FR	15		

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000-000

2.5

WATERBODY

Gazetted Name: SCHAFT CREEK Local: SC5
 Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0
 WS Code: 630-344000-00000-00000-0000-000-000-000-000-000-000
 Waterbody ID: ILP Map #: ILP #: Reach #: 2.5 -
 Project ID: 17415 Lake/Stream: S Lake From Date:

Fish Permit #: SM07-34821 Date: 2007/09/17 To: 2007/09/17 Agency: C660 Crew: MM CD Resample:

SITE / METHOD

Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment
513	104G.066	50028	9		GP3	EF 1	4	70	M	

A. GEAR SETTINGS

Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment
513	EF 1	1	2007/09/17	12:50	2007/09/17	13:30	

C. ELECTROFISHER SPECIFICATIONS

Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model
513	EF	1	1	O	672	200.0	3.0	400	40	4	SR LR-24

FISH SUMMARY

Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment
513	EF	1	1	RB	A	12	116 208	R	

INDIVIDUAL FISH DATA

Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
513	EF	1	1	RB	187	75.8	U	U	SC	1		FR	1		
513	EF	1	1	RB	208	93.2	U	U	SC	2		FR	2		
513	EF	1	1	RB	189	49.7	U	U	SC	3		FR	3		
513	EF	1	1	RB	149	31.8	U	U	SC	4		FR	4		
513	EF	1	1	RB	134	42.8	U	U	SC	5		FR	5		
513	EF	1	1	RB	172	32.7	U	U	SC	6		FR	6		
513	EF	1	1	RB	118	18.9	U	U	SC	7		FR	7		
513	EF	1	1	RB	127	23.8	U	U	SC	8		FR	8		
513	EF	1	1	RB	132	21.9	U	U	SC	9		FR	9		
513	EF	1	1	RB	122	19.7	U	U	SC	10		FR	10		
513	EF	1	1	RB	137	30.1	U	U	SC	11		FR	11		
513	EF	1	1	RB	116	174.0	U	U	SC	12		FR	12		

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-344000-00000-00000-0000-0000-000-000-000-000-000

2.7

WATERBODY															
Gazetted Name: SCHAFT CREEK										Local: SC7					
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0															
WS Code: 630-344000-00000-00000-0000-000-000-000-000-000-000															
Waterbody ID:					ILP Map #:			ILP #:		Reach #: 2.7 -					
Project ID: 17415					Lake/Stream: S			Lake From Date:							
Fish Permit #: SM07-34821				Date: 2007/09/16		To: 2007/09/16		Agency: C660		Crew: MM RS		Resample: <input type="checkbox"/>			
SITE / METHOD															
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment					
511	104G.066	50012	9			GP3	EF	1	4	60	T				
A. GEAR SETTINGS															
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment								
511	EF	1	1	2007/09/16	15:05	2007/09/16	15:40								
C. ELECTROFISHER SPECIFICATIONS															
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model				
511	EF	1	1	O	840	200.0	1.0	600	40	4	SR	LR-24			
FISH SUMMARY															
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment						
511	EF	1	1	RB	J	9	76	220	R						
INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
511	EF	1	1	RB	169	54.2	U	U	SC	1		FR	1		
511	EF	1	1	RB	172	53.9	U	U	SC	2		FR	2		
511	EF	1	1	RB	220	119.1	U	U	SC	3		FR	3		
511	EF	1	1	RB	139	33.3	U	U	SC	4		FR	4		
511	EF	1	1	RB	119	18.4	U	U	SC	5		FR	5		
511	EF	1	1	RB	88	7.5	U	U	SC	6		FR	6		
511	EF	1	1	RB	114	14.0	U	U	SC	7		FR	7		
511	EF	1	1	RB	76	4.9	U	U	SC	8		FR	8		
511	EF	1	1	RB	85	6.2	U	U	SC	9		FR	9		

FDIS Fish Card

Watershed Code: 630-344000-44200-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.2 ILP Map # ILP #

WATERBODY													
Gazetted Name:						Local: SKC2							
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0													
WS Code: 630-344000-44200-00000-0000-0000-000-000-000-000-000													
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 1.2 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/06/16		To: 2007/06/16		Agency: C660		Crew: KM TS		Resample: <input type="checkbox"/>		
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment			
315	104G.046	30031	9			GP3	EF	1	9	150	C		
A. GEAR SETTINGS													
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment						
315	EF	1	2007/06/16	13:00	2007/06/16	13:30							
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model		
315	EF	1	1	O	364	50.0	10.0	300	30	4	SR LR-24		
FISH SUMMARY													
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment				
315	EF	1	1	NFC		0							

FDIS Fish Card

Watershed Code: 630-344000-62300-00000-0000-0000-000-000-000-000-000
 Reach #: 1.1 ILP Map # ILP #

WATERBODY

Gazetted Name:		Local: TC1	
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0			
WS Code: 630-344000-62300-00000-0000-000-000-000-000-000-000			
Waterbody ID:	ILP Map #:	ILP #:	Reach #: 1.1 -
Project ID: 17415	Lake/Stream: S	Lake From Date:	
Fish Permit #: SM07-34821	Date: 2007/06/15	To: 2007/06/15	Agency: C660
Crew: KM TS	Resample: <input type="checkbox"/>		

SITE / METHOD

Site#	NID Map	NID #	UTM:Zone/East/North/Mthd	MTD/NO	Temp	Cond	Turbid	Comment
310	104G.045	30045	9	GP3 EF 2	4	30	T	
310	104G.045	30050	9	GP3 EF 1	4	30	T	

A. GEAR SETTINGS

Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment
310	EF 1	1	2007/06/15	12:30	2007/06/15	13:00	
310	EF 2	1	2007/06/15	13:55	2007/06/15	14:30	

C. ELECTROFISHER SPECIFICATIONS

Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model
310	EF 1	1	O	535	200.0	2.0	750	30	4	SR	LR-24
310	EF 2	1	O	349	200.0	2.0	650	30	4	SR	LR-24

FISH SUMMARY

Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment
310	EF 1	1	NFC			0			
310	EF 2	1	NFC			0			

FDIS Fish Card

Watershed Code: 630-344000-62300-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.2
 ILP Map #
 ILP #

WATERBODY																	
Gazetted Name:										Local: TC2							
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0																	
WS Code: 630-344000-62300-00000-0000-0000-000-000-000-000-000																	
Waterbody ID:					ILP Map #:			ILP #:		Reach #: 1.2 -							
Project ID: 17415					Lake/Stream: S			Lake From Date:									
Fish Permit #: SM07-34821			Date: 2007/06/15		To: 2007/06/15		Agency: C660		Crew: KM TS		Resample: <input type="checkbox"/>						
SITE / METHOD																	
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO		Temp	Cond	Turbid	Comment						
309	104G.045	30042	9			GP3	EF 2	4	50	T							
309	104G.045	30020	9			GP3	EF 1	4	50	M							
A. GEAR SETTINGS																	
Site#	MTD/NO		H/P	Date In	Time In	Date Out	Time Out	Comment									
309	EF	1	1	2007/06/15	11:15	2007/06/15	11:50										
309	EF	2	1	2007/06/15	10:00	2007/06/15	10:50										
C. ELECTROFISHER SPECIFICATIONS																	
Site#	MTD/NO		H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model					
309	EF	1	1	O	763	200.0	3.0	700	30	4	SR	LR-24					
309	EF	2	1	O	778	200.0	4.0	850	30	4	SR	LR-24					
FISH SUMMARY																	
Site#	MTD/NO		H/P	Species	Stage	Age	Total #	Lgth (Min/Max)		FishAct	Comment						
309	EF	1	1	NFC			0										
309	EF	2	1	RB	J		2	181	233	R							
INDIVIDUAL FISH DATA																	
Site#	MTD/NO		H/P	Species	Length	Weight	Sex	Mat	Age			Vch#	Genetic		Roll #	Frame#	Comment
									Str/Smpl#	Age			Str/Smpl#				
309	EF	2	1	RB	233	158.5	U	U	SC	1			FR	1			
309	EF	2	1	RB	171	64.7	U	U	SC	2			FR	2			

FDIS Fish Card

Watershed Code: 630-344000-62300-00000-0000-0000-000-000-000-000-000
 Reach #: 1.3 ILP Map # ILP #

WATERBODY

Gazetted Name: Local: TC3
 Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0
 WS Code: 630-344000-62300-00000-0000-000-000-000-000-000-000
 Waterbody ID: ILP Map #: ILP #: Reach #: 1.3 -
 Project ID: 17415 Lake/Stream: S Lake From Date:

Fish Permit #: SM07-34821 Date: 2007/06/15 To: 2007/06/15 Agency: C660 Crew: KM TS Resample:

SITE / METHOD

Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO		Temp	Cond	Turbid	Comment
311	104G.045	30044	9			GP3	EF 2	5	40	T	
311	104G.045	30025	9			GP3	EF 1	5	40	M	

A. GEAR SETTINGS

Site#	MTD/NO		H/P	Date In	Time In	Date Out	Time Out	Comment
311	EF	1	1	2007/06/15	14:45	2007/06/15	15:15	
311	EF	2	1	2007/06/15	11:10	2007/06/15	12:00	

C. ELECTROFISHER SPECIFICATIONS

Site#	MTD/NO		H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model
311	EF	1	1	O	436	150.0	2.0	650	30	4	SR	LR-24
311	EF	2	1	O	531	200.0	2.0	580	30	4	SR	LR-24

FISH SUMMARY

Site#	MTD/NO		H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment
311	EF	1	1	NFC			0			
311	EF	2	1	NFC			0			

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-344000-89000-00000-00000-0000-000-000-000-000-000

1.1

WATERBODY													
Gazetted Name: HICKMAN CREEK						Local: HC1							
Project Code: 630-000000-00000-00000-0000-000-000-000-000-0													
WS Code: 630-344000-89000-00000-00000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 1.1 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821				Date: 2007/06/14		To: 2007/06/14		Agency: C660		Crew: KM TS		Resample: <input type="checkbox"/>	
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO		Temp	Cond	Turbid	Comment		
305	104G.035	30012	9			GP3	EF	1	4	120	T		
A. GEAR SETTINGS													
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment						
305	EF	1	2007/06/14	11:35	2007/06/14	12:15							
C. ELECTROFISHER SPECIFICATIONS													
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model		
305	EF	1	1	O	656	200.0	2.0	500	30	4	SR	LR-24	
FISH SUMMARY													
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment				
305	EF	1	1	NFC		0							

FDIS Fish Card

Watershed Code: 630-344000-89000-00000-00000-00000-000-000-000-000-000-000
 Reach #: 3.1 ILP Map # ILP #

WATERBODY													
Gazetted Name: HICKMAN CREEK						Local: TC1							
Project Code: 630-000000-00000-00000-00000-000-000-000-000-000-0													
WS Code: 630-344000-89000-00000-00000-00000-000-000-000-000-000-000													
Waterbody ID:				ILP Map #:				ILP #:		Reach #: 3.1 -			
Project ID: 17415				Lake/Stream: S				Lake From Date:					
Fish Permit #: SM07-34821			Date: 2007/09/15			To: 2007/09/15			Agency: C660		Crew: MM RS		Resample: <input type="checkbox"/>
SITE / METHOD													
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment			
508	104G.045	50016	9			GP3	EF	1	3	10	T		

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-465700-00000-00000-0000-000-000-000-000-000-000

1.1

WATERBODY																
Gazetted Name: RASPBERRY CREEK							Local: WC1									
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0																
WS Code: 630-465700-00000-00000-0000-000-000-000-000-000-000																
Waterbody ID:				ILP Map #:				ILP #:				Reach #: 1.1 -				
Project ID: 17415				Lake/Stream: S				Lake From Date:								
Fish Permit #: SM07-34821			Date: 2007/06/17			To: 2007/06/17			Agency: C660			Crew: KM TS		Resample: <input type="checkbox"/>		
SITE / METHOD																
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment						
318	104G.056	30037	9			GP3	EF	1	5	50	L					
A. GEAR SETTINGS																
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment									
318	EF	1	1	2007/06/17	11:10	2007/06/17	11:30									
C. ELECTROFISHER SPECIFICATIONS																
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model					
318	EF	1	1	O	478	50.0	2.0	350	30	4	SR	LR-24				
FISH SUMMARY																
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment							
318	EF	1	1	RB	J	7	123	243	R							
INDIVIDUAL FISH DATA																
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment	
								Str/Smpl#	Age		Str/Smpl#					
318	EF	1	1	RB	243	173.9	U	U	SC	1		FR	1			
318	EF	1	1	RB	219	122.3	U	U	SC	2		FR	2			
318	EF	1	1	RB	141	37.8	U	U	SC	3		FR	3			
318	EF	1	1	RB	149	43.3	U	U	SC	4		FR	4			
318	EF	1	1	RB	150	37.4	U	U	SC	5		FR	5			
318	EF	1	1	RB	123	22.2	U	U	SC	6		FR	6			
318	EF	1	1	RB	123	22.2	U	U	SC	7		FR	7			

FDIS Fish Card

Reach # ILP Map # ILP #

Watershed Code: 630-659300-00000-00000-0000-0000-000-000-000-000-000

1.1

WATERBODY															
Gazetted Name:										Local: SKC1					
Project Code: 630-000000-00000-00000-0000-000-000-000-000-000-0															
WS Code: 630-659300-00000-00000-0000-000-000-000-000-000-000															
Waterbody ID:					ILP Map #:			ILP #:		Reach #: 1.1 -					
Project ID: 17415					Lake/Stream: S			Lake From Date:							
Fish Permit #: SM07-34821				Date: 2007/06/16		To: 2007/06/16		Agency: C660		Crew: KM TS		Resample: <input type="checkbox"/>			
SITE / METHOD															
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment					
314	104G.046	30029	9			GP3	EF 1	4	160	C					
A. GEAR SETTINGS															
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment								
314	EF 1	1	2007/06/16	10:15	2007/06/16	11:00									
C. ELECTROFISHER SPECIFICATIONS															
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model				
314	EF	1	1	O	642	150.0	3.0	300	30	4	SR LR-24				
FISH SUMMARY															
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment						
314	EF	1	1	RB	J	8	61 161	R							
INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
314	EF	1	1	RB	161	46.2	U	U	SC	1		FR	1		
314	EF	1	1	RB	63	2.8	U	U	FR	2					
314	EF	1	1	RB	85	6.5	U	U	SC	3		FR	3		
314	EF	1	1	RB	63	3.1	U	U							
314	EF	1	1	RB	71	3.8	U	U							
314	EF	1	1	RB	61	2.9	U	U	FR	4					
314	EF	1	1	RB	79	6.1	U	U	SC	5		FR	5		
314	EF	1	1	RB	65	3.2	U	U	FR	6					

FDIS Fish Card

Watershed Code: 630-949800-00000-00000-0000-0000-000-000-000-000-000-000
 Reach #: 1.0
 ILP Map #
 ILP #

WATERBODY															
Gazetted Name:										Local: MC1a					
Project Code: 630-000000-00000-00000-0000-0000-000-000-000-000-000-0															
WS Code: 630-949800-00000-00000-0000-0000-000-000-000-000-000-000															
Waterbody ID:					ILP Map #:				ILP #:		Reach #: 1 -				
Project ID: 17415					Lake/Stream: S				Lake From Date:						
Fish Permit #: SM07-34821				Date: 2007/09/18		To: 2007/09/18		Agency: C660		Crew: MM CD		Resample: <input type="checkbox"/>			
SITE / METHOD															
Site#	NID Map	NID #	UTM:Zone/East/North/Mthd			MTD/NO	Temp	Cond	Turbid	Comment					
599	104G.016	50010	9			GP3 EF 1	5	140	C						
A. GEAR SETTINGS															
Site#	MTD/NO	H/P	Date In	Time In	Date Out	Time Out	Comment								
599	EF 1	1	2007/09/18	16:30	2007/09/18	17:05									
C. ELECTROFISHER SPECIFICATIONS															
Site#	MTD/NO	H/P	Encl	Sec	Length	Width	Voltage	Frequency	Pulse	Make	Model				
599	EF	1	1	O	957	160.0	4.0	450	40	4	SR LR-24				
FISH SUMMARY															
Site#	MTD/NO	H/P	Species	Stage	Age	Total #	Lgth (Min/Max)	FishAct	Comment						
599	EF	1	1	RB	A	4	187 280	R							
INDIVIDUAL FISH DATA															
Site#	MTD/NO	H/P	Species	Length	Weight	Sex	Mat	Age		Vch#	Genetic		Roll #	Frame#	Comment
								Str/Smpl#	Age		Str/Smpl#				
599	EF	1	1	RB	280	200.0	U	U	SC	1		FR	1		
599	EF	1	1	RB	272	200.0	U	U	SC	2		FR	2		
599	EF	1	1	RB	212	200.0	U	U	SC	3		FR	3		
599	EF	1	1	RB	187	200.0	U	U	SC	4		FR	4		