SM08-45742

2008 Stream Assessment
for Select Areas and Road Crossings within Nadina Forest District

Prepared for:

Ministry of Forests
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Babine Business Area
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1. Introduction

On June 25, 2008, FINS Consulting Ltd. was retained by the Burns Lake British Columbia Timber Sales Office (BCTS) in the Nadina Forest District to conduct operational level stream assessments for several areas of interest undergoing and/or proposed multi-phase layout in the Babine Business Area.

This report summarizes the results of the stream assessments, which were completed between July 14 and October 22, 2008. All evaluated drainages are within the Babine Lake (BABL), Babine River (BABR), Bulkley River (BULK), Francois Lake (FRAN), Morice River (MORR), Upper Nechako Reservoir (UNRS) and Zymoetz (Copper) River (ZYMO) high level watershed groups in the Nadina Forest District.

Fish habitat and fish presence/absence was evaluated in drainages within or adjacent to 78 selected areas and 23 proposed and existing road crossings, and appropriate riparian classifications were subsequently assigned to alleviate planned timber resource management.

1.1 Location and Access

The project area is located approximately 300km west of Prince George. The location map (Figure 1) on the following page provides the general location of the study area. The specific areas were reached by 4x4 vehicle and individual streams were accessed on foot.

2. Historical Information

An abundance of historic fish information was generally available for the entire project area. Numerous operational and reconnaissance fish and fish habitat inventories had been conducted in the past 13 years by various consultants within Ootsa Lake and Francois Lake tributaries, upper Endako River, Bulkley River, Babine River, Babine Lake tributaries and Zymoetz (Copper) River.

However, due to the different purposes of these inventories, stream assessments at these times were conducted to various degrees of intensity and standards in order to satisfy particular needs of the clients. Nevertheless, the data obtained during those surveys provided invaluable information and helped with current stream assessments. All historic information relevant to the study area has been incorporated into this report.

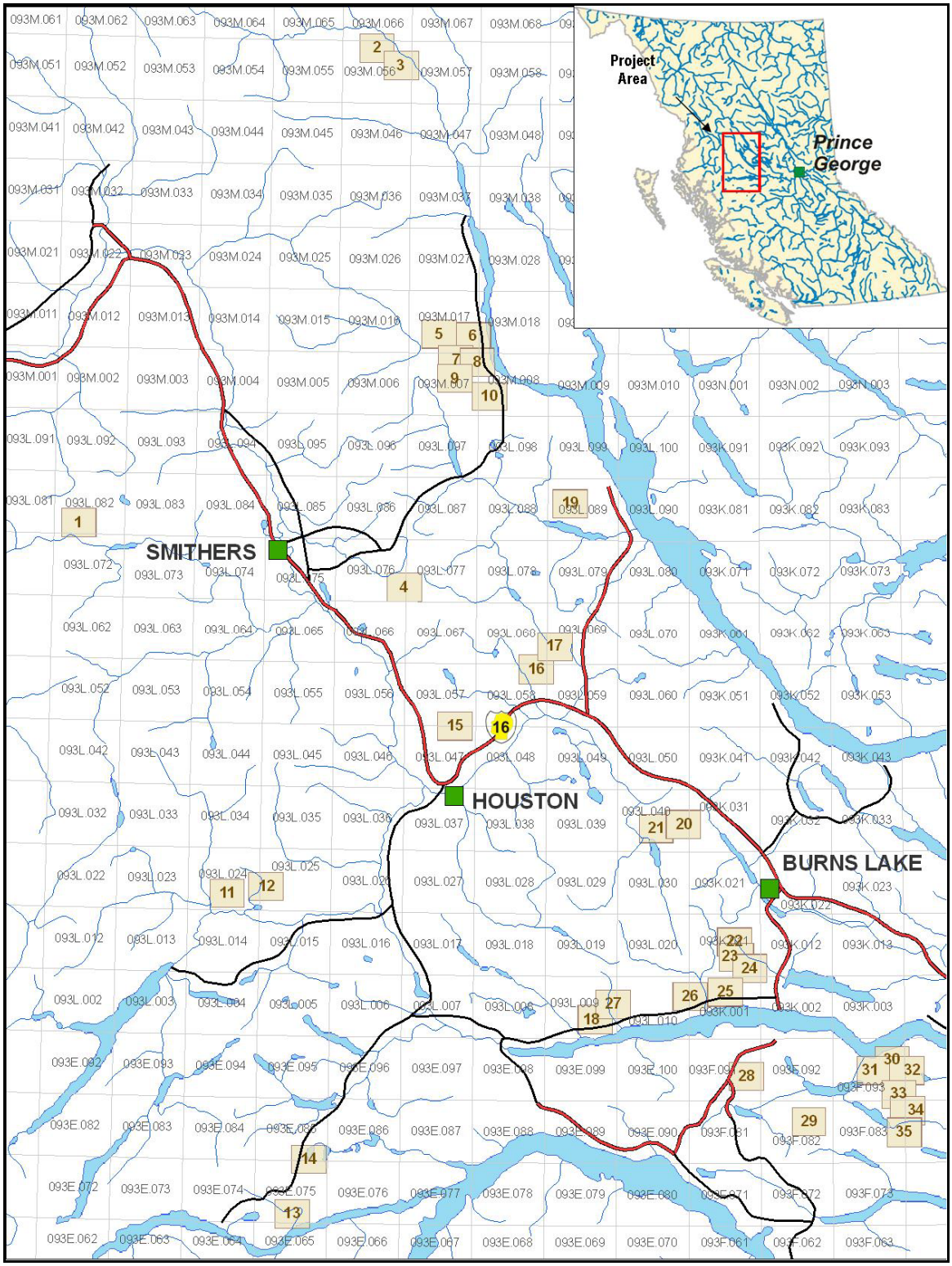

Figure 1: Location of Project Area.

3. Methods

Methodology used throughout this project was consistent with the Forest and Range Practices Act (FRPA) (former Forest Practices Code (FPC)) standards and methods outlined in the following publications:

- Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures. Version 2.0. (RIC, 2001)
- Fish-stream Identification Guidebook, Second Edition (FSID) (FPC, 1998)
- Riparian Management Area Guidebook (FPC, 1995)

Areas of interest requiring stream assessments were identified and named by BCTS personnel prior to the field trips and were marked on hard copy or digital maps.

3.1 Air Photo Interpretation

Air photo/ortho photo interpretation was completed to:

- delineate stream reaches for all drainages where reaches were missing,
- identify relevant barriers to fish migration, which would be later verified in field,
- assess if potential overwintering habitat is present above these obstructions.

3.2 Field Data Collection

Field data were collected on Site Cards and Fish Collection Forms, which are the current accepted method of collecting data for fish sampling and stream classification. Supporting documentation regarding terminology and use of these forms is available in publications listed in the Bibliography section. Copies of all field cards are provided in Appendix I and are arranged by site number.

3.3 Fish Sampling

Electrofishing, minnow traps and dip netting, supplemented by visual observation, were the methods used for fish sampling for this project.

3.4 Measurements and Calculations

Stream channel and wetted widths were determined using a meter tape. A minimum of six channel width measurements were made along each site at a distance of approximately 15-20m apart. For proposed crossings additional channel measurements were taken on downstream and upstream side of the crossing. Residual pool and bankfull depth measurements were determined using a meter stick. Stream gradient was measured using Abney level along several sections of the site. Site lengths were determined by ground estimate, hip chain or by GPS unit. Stream water temperatures were measured using an alcohol thermometer while conductivity measurements were made using Oakton portable meter, which was calibrated using standardized solutions.

Measurements of falls were based on ground estimates or calculated using the following formula:

$$H=Ho * (\text{gradient (\%) to top of falls})/ (\text{gradient (\%) to bottom of falls}) + Ho$$

H = Height of falls (in m) Ho = Eye height of observer (in m)

The above formula is accurate provided the observer is at the same elevation as the base of the falls (i.e., standing at the edge of the plunge pool).

Heights and lengths of linear obstructions (cascades, velocity barriers, etc.) were determined using a hip chain and Abney level and then applying slope/distance tables to verify the vertical height.

100 years flood discharge (Q100) was calculated using modified California method and the Manning formula (www.culvertbc.com). Roughness coefficients were derived from Manning's and Cowan's coefficients (McCuen, R. H., 1989), which were modified through the analysis of stream morphology data collected by FINS during the past 12 years.

3.5 Stream and Site Referencing

Drainages without a gazetted name or watershed code were assigned unique five digit stream ID (also known as Interim Location Points (ILP) - as recommended in the FSID) in each proposed development area to provide reference for other interested parties working within the same area. Otherwise, gazetted, local or already existing BCTS identifiers were used or watershed codes were attached to the relevant stream, if available.

Site numbers for this project have been assigned in an ascending order based on the sequence of survey.

As per request by Smithers and Houston office staff, site locations were marked in the field by yellow ribbon with written information containing site and stream ID, riparian classification, fish species present and date of visit. Additionally, ribbons with relevant information were also placed at the transitions of riparian classifications and at the specified proposed road crossings.

3.6 Mapping

Mapping convention for this project generally follows the standards as are recommended in the FSID. Using GIS software 1:20,000 scale maps have been produced for this project, and are included in Appendix III at the end of this report.

Each map depicts the stream network; base coordinates from the UTM grid and mapping symbols, as recommended in the standards. The fish presence/absence in specific streams is represented on the maps using colour line work. Solid red lines indicate confirmed fish presence while dashed red lines indicate that fish presence is inferred, but has not been confirmed. Solid blue lines show confirmed fish absence and dashed blue lines indicate suspected fish absence in the system. Solid green lines indicate presence of non classified drainage reaches and dashed green lines depict the lack of any kind of drainage at the surveyed site and vicinity, which were originally displayed on TRIM base layers. In addition, stream network has been labeled with designated riparian classification.

Unmapped or mismapped wetlands and streams on TRIM coverage, which were encountered during survey, were also mapped with the aid of GPS unit, ortho photos and GIS software.

Current sites locations on the map are depicted by a black site symbol with attached black site summary label (sampling results, gradient, channel width, and riparian classification). Site ID is represented by a red label placed beside the site symbol.

Crossing assessments are depicted by a red site summary label (sampling results, gradient, channel width, Q100, riparian classification and fish habitat value).

Additional sampling sites (AS) are depicted by a green information label (sampling results, method applied with sampling effort).

Historic sampling sites are indicated by a purple site symbol with attached purple site summary label (sampling results, gradient and channel width) and information by whom and when the stream was visited. Historic site ID is represented by a purple label placed beside the site symbol.

All additional fisheries features which were encountered during assessment or found during historic data review, and that provide significant information for the final assessment, were also depicted on the maps using appropriate symbols as indicated in the standards.

3.7 Photographs

Representative photographs of sites and any significant features are presented in Appendix II. Photos have been reduced in size so that multiple photos can be presented with relevant site cards. Each photo is labeled with the site number, and direction in which the photo was taken.

Some sites do not have any photographs as they would not have provided any useful information due to the lack of good visibility (dense vegetation), camera was damaged during field assessment, or because there was no drainage present at all.

3.8 Field Equipment

All sampling equipment specifications are listed below:

- 1 Smith-Root model 12B P.O.W. Backpack Electrofisher
- 1 Oakton TDSTestr3 conductivity meter (with 1413μS/cm solution)
- 1 Abney level, alcohol thermometer, Silva compass
- 1 Pentax Optio WP digital camera
- 1 Garmin GPS 12 unit
- assorted other equipment including meter tape, hip chain, magnifying lens, meter stick, dip net, and oil spill kit
- 2 personal First Aid kits, as per WorkSafe BC requirements

4. Determining Fish-bearing Status

The following section summarizes the information collected and conclusions reached for each sample site within the general project area. This has been based both on interpretations and conclusions from the synthesis of data collected during previous inventories (Lakes/Nadina Forest District 1996 through 2007 Reconnaissance and Operational Inventories) and from new information collected as part of this project.

Determining whether or not any fish use occurs in a specific reach is a complex process, involving much more than applying fish sampling results on a site-specific basis. Specifically, in

applying a non fish-bearing status to a reach when fish are not captured in a sampling event, a more systematic process is required in order to provide an adequate rationale to support a conclusion of fish absence. Biological evaluation is used which factors in such considerations as historical sampling information, known fish distributions and behavior, barriers, gradients, invertebrate presence, habitat quality, and presence/absence of headwater lakes.

As a general rule, two conditions must usually exist in order for fish to inhabit a specific stream reach; 1) presence of fish habitat and 2) accessibility to that habitat. There are exceptions to this, such as presence of resident or adfluvial populations above barriers which otherwise block access, but these situations are considered on an individual basis when appropriate sampling can be undertaken to accurately determine fish presence under these circumstances.

Determining presence of fish habitat requires biological judgment that is based on many tangible factors. A "snapshot" method is used to determine presence of fish habitat at the time of sampling, but this is not sufficient when lack of water limits available habitat. Under these circumstances, a temporal approach is required which factors in the potential for fish habitat presence during a different flow period. In this manner, different habitat requirements for suspected fish species are also considered, such as potential seasonal use for rearing (i.e., higher flow rearing or refuge habitat) or spawning (i.e., suitable gravels, gradient and potential flow). Again, biological judgment is required to recognize this potential habitat, bearing in mind how the different flow regimes may affect the availability of this habitat. Moreover, the presence of potential overwintering or perennial habitat upstream in the watershed (i.e., lakes, wetlands, pools >0.5m deep) is also taken into account and has influence on the fish-bearing status of a specific reach. Existence of habitat or potential habitat, if present, is noted and described in the comments on the site cards.

Once presence of fish habitat has been established, it must be determined whether the fish are capable of accessing this habitat. The presence of obstructions to fish in the form of falls, cascades, impassable gradients and lack of connectivity within a watershed may limit fish distribution within a watershed and must be evaluated. When questionable obstructions or soft barriers (i.e., beaver dams, wetlands, and NVC reaches) are present, the process for determining the presence of fish habitat upstream must be undertaken and combined with adequate sampling in order to determine fish use.

The fish-bearing status of a specific reach is dependent on the presence of fish habitat, the accessibility to that habitat and is supported by the results of fish sampling. The above process for determining fish presence is an overview of the variables evaluated before fish-bearing status can be accurately ascertained. This entire process is always supplemented by existing fisheries information and interpretations from map and air photo analysis.

Once a non-fish bearing conclusion has been established for a sampled reach, all reaches located upstream from that location are considered to be non fish-bearing and no further sampling is required to confirm this conclusion. This is inherent in the process used to determine the non fish-bearing status.

5. Fish Habitat Value Rating

Habitat value rating was introduced in 2002 in order to protect fish and fish habitat and provide proper fish passage. The decision making process in selecting an appropriate stream crossing installation was simplified and depended on the fish habitat evaluation.

In the Fish-stream Crossing Guidebook habitat value was distinguished in three ratings:

- **Critical** (CR) – where extremely abundant or important fish and/or fish habitat are present, habitat is critical in sustaining a subsistence, commercial, or recreational fishery, or species at risk.
- **Important** (IM) – where moderately abundant fish and/or fish habitat are present, but deemed to be not critical; contains similar habitat readily available to the stock elsewhere within a particular watershed.
- **Marginal** (MG) – where sparse fish and/or fish habitat are present (i.e. low value habitat or under/non utilized habitat); habitat that marginally contributes to fish production.

These ratings were applied to assessed stream reaches and are provided in the "Stream summary tables" in Section 6 below.

Confirmed non-fish bearing drainages have no ratings (NA), regardless of potential fish habitat quality. However, any possible introduction of harmful substances to such watercourses during in-stream work may negatively affect existing fish habitat downstream of non-fish bearing waters.

6. Results

The summary results are grouped in three sections to reflect assessment locations in the areas managed separately by Smithers, Houston and Burns Lake (main office) field units of the BCTS Babine Business Area.

The following tables within these sections provide the fish-bearing status for all surveyed drainage reaches, present information for all non fish-bearing reaches, and identify reaches where follow-up sampling may be conducted.

The first, “Stream summary table”, provides basic physical information and brief comments for all surveyed reaches and incorporates historic site data pertinent to this project (shaded).

The second, “Non-fish bearing stream table”, provides justifications for all non fish-bearing reaches and includes pertinent physical site-specific data, sampling method and effort, relevant historical information and comments that provide a rationale to support derived riparian classification for non-fish bearing drainages.

The third, “Follow-up sampling table” indicates reaches where obtained data were inconclusive to assign appropriate riparian classification and suggests when follow-up sampling should be conducted.

Abbreviations used in all tables are located at the end of the report.

6.1 Smithers Field Unit

6.1.1 Summary of all Surveyed Reaches

Table 1: Summary of data of all surveyed drainages in Smithers Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
Road 7552-39 Crossing	**Map 1**	440-741100-11200	2	**1AS**	9.581000.6074664	**S3**	IM	*	*	*	DV	N	Additional sampling site. **CMP (2% slope, 32m long and no plunge pool) @ UTM 9.581036.6074686 (35.62 km on McDonnell FSR) restrict fish passage. Abundant DV present downstream. Blue listed - sensitive to sedimentation and water temperatue increase.**
Road 7552-39 Crossing	**Map 1**	440-741100-11200	2	**2AS**	9.581086.6074716	**S3**	IM	*	*	*	DV	N	Additional sampling site. **1.2m high BD @ UTM 9.581545.6075242 is a temporary barrier. DV present but scarce downstream between BD and CMP. Blue listed - sensitive to sedimentation and water temperatue increase.**
Road 7552-39 Crossing	**Map 1**	440-741100-11200	4	**E108**	9.581823.6075336	*	*	2.0	1.30	*	DV	N	**Historic Site.** DV captured by Triton in 1997.
Road 7552-39 Crossing	**Map 1**	440-741100-11200	4	**3**	9.582115.6075375	**S3**	MG	2.5	1.90	1.87	NFC (DV)	N	Stream with fair overall seasonal habitat for DV. Good spawning habitat present, rearing is moderate due to not very abundant instream cover and no overwintering habitat was observed. **Access to fish is blocked by BD at the lake outlet downstream and obstructed by CMP at McDonnell FSR. DV captured by TRIT in 1997 ~600m d/s from crossing.**
Road 7552-39 Crossing	**Map 1**	440-741100-11200	4	**3X**	9.582404.6075438	**S3**	MG	2.5	1.92	1.78	NFC (DV)	N	Stream with fair overall seasonal habitat for DV. Good spawning habitat present, rearing is moderate due to not very abundant instream cover and no overwintering habitat was observed. **Access to fish is blocked by BD at the lake outlet downstream and obstructed by CMP at McDonnell FSR. DV captured by TRIT in 1997 ~600m d/s from crossing.**
A82787-1	**Map 10**	(A-A 2) 480-531000	2	**4X**	9.656691.6101750	**S3**	CR	2.3	3.98	7.62	CO RB	N	Stream with good seasonal habitat. Rearing excellent for CO and RB due to abundant woody debris cover; spawning habitat fair - many gravel patches observed and freshly emerged salmonid fry captured; overwintering likely in beaver ponds upstream.
A82786-2	**Map 10**	480-531000-56500	1.2	**208**	9.655969.6101387	*	*	2.9	1.58	0.58	NS	*	**Historic Site**. ~600m long stream between wetlands lacking spawning and overwintering habitat. Rearing habitat available but access questionable through downstream wetland.
A82786-2	**Map 10**	(AA R1) 480-531000-56500	2	**5**	9.655794.6101236	**S4**	MG	*	1.49	*	RB	N	**Re-sampling of site 208 from 2007. Confirmed RB presence.**
A82787-1	**Map 10**	480-531000	4	**190**	9.656814.6101199	*	*	0.7	4.00	7.05	NS (CO CT)	*	**Historic Site.** Stream with good rearing and overwintering habitat for CO. Despite the numerous BD, stream maintains visible flow. BD's in intervals 40-60m, but easily passable d/t deep channel. Channel width visually assessed d/t flooded valley.
A82787-1	**Map 10**	(A-A 4) 480-531000	4	**6**	9.656814.6101199	**S3**	MG	*	*	*	RB	N	**Re-sampling of site 190 from 2007. Confirmed RB presence.**

Table 1: Summary of data of all surveyed drainages in Smithers Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
A84617-2	**Map 10**	480-531000-89028	3	**213**	9.657479.6100251	*	*	5.7	1.83	2.06	NS	*	**Historic Site.** Poor fish habitat - stream is violent at high flows and what is indicated by some braided sections. Only rearing habitat usable at low flows, but likely isolated due to the lack of channel and persistent dewatering observed downstream. No overwintering habitat - creek too shallow. No spawning - gravels highly movable at high and moderate flows.
A84617-2	**Map 10**	(AA-R1) 480-531000-89028	2	**7**	9.657538.6100460	**S6**	NA	*	*	*	NS	N	**Re-sampling of site 213 from 2007. Confirmed fish absence. Stream mismapped on TRIM.**
A84617-1	**Map 10**	480-531000	8	**209**	9.657900.6099678	*	*	5.8	1.43	0.86	NS	*	**Historic Site.** Stream with poor salmonid habitat, fast flow and shallow, likely dry through summer; no spawning habitat - angular and compacted gravels, too shallow for overwintering, some potential seasonal rearing available.
A84617-1	**Map 10**	480-531000	7	**8**	9.657733.6100557	**S6**	NA	*	*	*	NFC	N	**Re-sampling of site 209 from 2007. Confirmed fish absence. Flows not as is mapped on TRIM.**
A82786-1	**Map 10**	480-531000-05800	4	**199**	9.653481.6102305	*	*	2.5	1.40	0.61	NS	*	**Historic Site.** Stream potentially has only seasonal R habitat available and no spawning or overwintering. RB passage through large wetland is questionable.
A82786-1	**Map 10**	480-531000-05800	4	**9**	9.653527.6102724	**S6**	NA	*	*	*	NFC	N	**Re-sampling of site 199 from 2007. Confirmed fish absence.**
A82783-1	**Map 8**	78311 / 480-525800-41873	3	**187**	9.651750.6105370	*	*	2.3	1.65	0.60	NFC	*	**Historic Site.** Stream with usable seasonal R habitat for CT/DV (RB), no OW or S habitat. Access to fish may be impeded wetlands present in lower reaches.
A82783-1	**Map 8**	78311 / 480-525800-41873	3	**901**	9.652044.6104878	**S6**	NA	1.2	1.52	0.69	NFC	N	**Re-sampling of site 187 from 2007. Confirmed non-fish bearing.**
Road 5897-45 Crossing	**Map 2**	480-249400-14300	2	**10AS**	9.631785.6162164	*	*	*	*	*	DV RB	N	Additional sampling site. Confirmed fish presence.
Road 5897-45 Crossing	**Map 2**	480-249400-14300-14700	1	**10**	9.631431.6162520	*	*	*	*	*	NFC	N	Stream unlikeley utilized by fish due to observed dewatering, however potentially accessible up to cacade barrrier (2m high and 6 m long) @ UTM 9.631382.6162426.
Road 5897-45 Crossing	**Map 2**	480-249400-14300-14700	2	**10X**	9.630771.6162065	**S6**	NA	5.3	1.52	0.93	NFC	N	Confirmed non-fish bearing.
A82780	**Map 4**	(AA1) Burbridge C. 460-325400-62400	3	**11AS**	9.640790.6066500	*	MG	*	*	*	NFC (CT DV)	N	During this survey wetland reach was sampled by EF and overnight set of six MT and yielded no fish (UTM 9.640790.6066500). CT captured in R4 u/s.
A82780	**Map 4**	(AA1) Burbridge C. 460-325400-62400	4	**11**	9.641461.6065769	**S3**	MG	5.0	2.47	1.94	CT (DV)	N	Stream with very limited fish habitat at low and high flows and under-utilized by fish. Spawning habitat fair - small gravel patches present throughout - but fry emergence likely affected by low flows in early summer. Stream inhabited by very sparse CT population and potentially utilized by DV No overwintering habitat observed. DV were captured by Triton in 1997 in R1 downstream of wetland.
A82780	**Map 4**	(AD1) 78004	2	**12**	9.641199.6066101	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
A82780	**Map 4**	(AD1) 78004	1	**13**	9.641071.6066083	**S6**	NA	5.7	0.72	0.07	NS	N	Confirmed non-fish bearing. **Unmapped drainage on TRIM. 25m long FSZ from mouth. Transition S6/NCD @ UTM 9.641199.6066101.**
A82780	**Map 4**	(AB2) 78004	1	**14**	9.640961.6066289	**S6**	NA	5.5	0.65	0.23	NS	N	Confirmed non-fish bearing.
A82780	**Map 4**	(AB2) 78004	2	**15**	9.641102.6066283	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Transition S6/NCD @ UTM 9.640961.6066289.**

Table 1: Summary of data of all surveyed drainages in Smithers Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
A82780	**Map 4**	(AC1) 78002	1	**16**	9.640688.6066766	**S4**	MG	0.3	0.98	0.36	NFC (CT)	N	Stream with potential seasonal rearing habitat only. Easily accessible from Burbridge C. to upstream reaches.
A82780	**Map 4**	(AH1) 78001	2	**17**	9.640980.6066927	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Transition S6/NCD @ site location.**
A82780	**Map 4**	(AC1) 78002	3	**18**	9.641993.6066533	**S4**	MG	7.3	0.92	0.29	NFC (CT)	N	Stream with potential seasonal rearing habitat. No obstructions to fish passage noted, stream may be utilized on the opportunisic bases by CT.
A82780	**Map 4**	(AE1) 460-325400-62400-67300	1	**19**	9.641822.6065595	**S4**	MG	4.0	1.45	0.67	NFC (CT DV)	N	The only tributary to Burbridge creek within the block area which may provide suitable overwintering habitat for CT. Potential CT use year round.
A82774-1	**Map 3**	54701	4	**20**	9.635255.6160749	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Transition S6/NCD @ site location. Mismapped on TRIM.**
A82774-1	**Map 3**	54701	3	**21**	9.635300.6160885	**S6**	NA	0.3	0.83	0.05	NS	N	Not a FPC stream. **Transition NCD/S6 @ site location. Mismapped on TRIM.**
A82774-1	**Map 3**	54710	1	**21A**	9.635399.6160948	**NA**	NA	*	*	*	NS	N	No drainage.
A82774-1	**Map 3**	54711	1	**21B**	9.635898.6160355	**NA**	NA	*	*	*	NS	N	No drainage.
A82774-1	**Map 3**	54702	2, 3	**22**	9.636014.6160166	**S6**	NA	1.5	1.40	0.49	NS	N	Confirmed non-fish bearing.
A82774-1	**Map 3**	54705	1	**23**	9.636034.6159825	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped on TRIM.**
A82774-1	**Map 3**	54712	1	**23A**	9.636030.6159654	**NA**	NA	*	*	*	NS	N	No drainage.
A82774-1	**Map 3**	54703	1	**24**	9.635773.6160025	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped on TRIM.**
A82774-1	**Map 3**	54704	1	**25**	9.635753.6159981	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped on TRIM.**
A82774-1	**Map 3**	54720	3.2	**26**	9.636940.6159140	**S6**	NA	3.3	2.67	2.25	NFC	N	Confirmed non-fish bearing.
A82774-1	**Map 3**	54721	1	**27**	9.636984.6158997	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped on TRIM.**
A82774-1	**Map 3**	54722	1	**28**	9.637096.6158571	**S6**	NA	3.0	1.48	0.63	NFC	N	Confirmed non-fish bearing.
A82774-1	**Map 3**	54723	1	**31**	9.637151.6158473	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped on TRIM.**
A82774-1	**Map 3**	54713	1	**31A**	9.637136.6158211	**NA**	NA	*	*	*	NS	N	No drainage. **Mismapped on TRIM.**
A82774-1	**Map 3**	54724	1	**32**	9.637713.6158533	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A82774-1	**Map 3**	54725	2	**33**	9.637794.6158360	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A84621-1	**Map 5**	(AA-R1) 460-081700-43900-61600-2490-9640		**136**	9.645156.6112086	**S3**	IM	1.3	3.72	1.96	CT	N	Stream with excellent rearing and spawning habitat; overwintering fair. CT fry very abundant.
A84620-2	**Map 6**	(AA-R1) 480-512900	2	**138**	9.652865.6111016	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84619-4	**Map 6**	(AA-R1) 480-517900	2	**139AS**	9.652819.6110252	**S6**	NA	11.0	*	*	NFC	N	Additonal Sampling site. Confirmed non-fish bearing.

Table 1: Summary of data of all surveyed drainages in Smithers Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
A84619-4	**Map 6**	(AA-R1) 480-517900	3	**140**	9.652511.6110379	**S6**	NA	4.5	1.67	1.33	NS	N	Confirmed non-fish bearing.
A84620-1	**Map 6**	(AB-R1) 18001	1	**141A**	9.651719.6110651	**NA**	NA	*	*	*	NS	N	No drainage.
A84620-1	**Map 6**	(AB-R1) 18001	2	**141**	9.651513.6110611	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84620-1	**Map 6**	(AA-R1) 480-517900	5, 6	**142**	9.651563.6110857	**S6**	NA	12.3	1.23	1.16	NFC	N	Confirmed non-fish bearing.
A84619-3	**Map 8**	(AA-R1) 480-518400	3	**143**	9.653009.6108783	**S3**	IM	3.0	2.47	1.07	DV	N	Stream with good perennial habitat overall and excellent spawning habitat - DV fingerlings common. **Blue listed - sensitive to sedimentation and water temperatue increase.**
A84619-1	**Map 8**	(AA/AC-R1) 480-519200	2	**144**	9.653324.6108306	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A84619-1	**Map 8**	(AD-R1) 7002	1	**145**	9.652079.6107635	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
A84619-1	**Map 8**	(AB-R1) 480-525800-10400	3, 4	**146**	9.652873.6107337	**NCD / S6**	NA	*	*	*	NS	N	Not a FPC stream**. Mis-mapped on TRIM. Becomes a stream at UTM 9.652816.6107405.**
A57933-1	**Map 8**	(AA-R1) 7003	1	**147X**	9.652273.6105873	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A57933-1	**Map 8**	(AB-R1) 7001	3	**148**	9.652223.6107107	**S6**	NA	1.6	1.47	0.40	NFC	N	Confirmed non-fish bearing.
A84618-2	**Map 7**	(AF-R1) 480-525800-41873	8	**149**	9.651283.6106924	**S6**	NA	18.3	1.17	1.16	NS	N	Confirmed non-fish bearing.
A84618-2	**Map 7**	(AG-R1) 7004	1	**150**	9.651233.6107385	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
A84618-1	**Map 7**	(AF-R1) 480-525800-41873	10, 11	**151**	9.650945.6107441	**S6 / NCD**	NA	7.8	1.13	0.48	NS	N	Confirmed non-fish bearing. **Upper portion mis-mapped on TRIM. Becomes NCD at UTM 9.650625.6107614.**
A84618-1	**Map 7**	(AI-R1) 7004	1	**152**	9.650503.6107477	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
A84618-1	**Map 7**	(AE-R1) 7006	4	**153**	9.650325.6107181	**S6**	NA	5.3	1.07	0.56	NS	N	Confirmed non-fish bearing. **Lower portion mis-mapped on TRIM. Site location marks transition NCD/S6.**
A84618-1	**Map 7**	(AE-R1) 7006	3	**154**	9.650441.6106847	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mis-mapped on TRIM. Site location marked in field on yellow ribbon and marks transition S6/NCD.**
A84618-1	**Map 7**	(AA-R1) 7001	5	**155**	9.649028.6107502	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A84618-1	**Map 7**	(AA-R1) 7001	1	**156AS**	9.647870.6107547	**S6**	NA	1.0	1.50	*	NFC	N	Confirmed non-fish bearing. **Lower section of watershed mis-mapped on TRIM; stream crossing with 4000 FSR located 230m to the north from mapped location.**
A84618-1	**Map 7**	(AB-R1) 460-081700-43900-61600-6460	4, 5, 6	**156**	9.648854.6107038	**S6 / NCD**	NA	9.3	1.08	0.58	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 9.649141.6106961.**

Table 1: Summary of data of all surveyed drainages in Smithers Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
A84622-1	**Map 9**	(AB-R1) 480-897200-65700-36200	4	**157**	9.647879.6103769	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84622-1	**Map 9**	(AC-R1) 7012		**158**	9.648165.6103753	**NA**	NA	*	*	*	NS	N	No drainage present within the block. **Seepage downstream of 4000 FSR crossing at UTM 9.648482.6103855 flows south-west and around of proposed block; not as mapped on TRIM. Completely separate drainage.**
A66819	**Map 9**	(AA-R1) 7012	3	**159**	9.648672.6104031	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A66819	**Map 9**	(AC-R1) 5007	1	**160**	9.648393.6104115	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Downstream of 4000 FSR crossing at UTM 9.648393.6104115 flows north-west and around of proposed block; not as mapped on TRIM. Completely separate drainage.**
A66819	**Map 9**	(AC-R2) 5007	2	**161**	9.648590.6104171	**S6**	NA	5.5	1.08	0.48	NFC	N	Confirmed non-fish bearing.
A84622-1	**Map 9**	(AD-R1) 480-525800-72300	2	**162**	9.649907.6102860	**S6**	NA	0.6	1.25	0.21	NS	N	Confirmed non-fish bearing.
Sunnyside (424) FSR Crossings Hub 58	**Map 6**	42401	1	**222X**	9.651148.6111896	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
Sunnyside (424) FSR Crossings Hub 57	**Map 6**	42402	1	**223X**	9.651146.6111934	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
Sunnyside (424) FSR Crossings Hub 56	**Map 6**	42403	1	**224X**	9.651143.6112031	**NCD**	NA	9.5	0.93	0.34	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
Sunnyside (424) FSR Crossings Hub 47	**Map 6**	42404	4	**225X**	9.651626.6112145	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
Sunnyside (424) FSR Crossings Hub 46	**Map 6**	42404	3	**226X**	9.651726.6112099	**S6**	NA	13.2	0.78	0.38	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 9.651692.6112085. Unmapped drainage on TRIM.**
Sunnyside (424) FSR Crossings Hub 37	**Map 6**	42404	1	**227**	9.652079.6112342	**S6**	NA	3.2	0.62	*	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 9.651936.6112181 (R2). Becomes S6 at UTM 9.651800.6112140 (R3). Unmapped drainage on TRIM.**
Sunnyside (424) FSR Crossings Hub 37	**Map 6**	42404	1	**227X**	9.651975.6112173	**S6**	NA	3.2	0.62	0.10	NS	N	Confirmed non-fish bearing. **Unmapped drainage on TRIM.**

Table 1: Summary of data of all surveyed drainages in Smithers Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
Sunnyside (424) FSR Crossings Hub 39 & 42	**Map 6**	42405	2	**228X**	9.652062.6112168	**NCD/S6/ NCD**	NA	4.3	0.93	0.40	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 9.652031.6112125 in R1 and NCD at UTM 9.652006.6111948 in R3. Unmapped drainage on TRIM.**
Sunnyside (424) FSR Crossings Hub 22	**Map 6**	Tsak C. 480-504200	3	**229**	9.651763.6112670	**S2**	IM	2.0	5.37	5.53	CT RB (DV)	N	Overall good perennial habitat for trout and Dolly Varden. Spawning opportunistic, rearing excellent, overwintering in some suitable pools. See addendum for more info.
Sunnyside (424) FSR Crossings Hub 22	**Map 6**	Tsak C. 480-504200	3	**229X**	9.651709.6112821	**S2**	IM	1.6	3.90	11.53	CT RB (DV)	N	**Crossing constrict flow and becomes impediment to juvenile trout passage and migration at all flows. See addendum for more info.**
Sunnyside (424) FSR Crossings Hub 22	**Map 6**	Tsak C. 480-504200	1	**233AS**	9.653827.6112433	**S2**	CR	*	*	*	CO (CT DV RB)	N	Additional sampling site. Confirmed fish presence. See Addendum for more info. **Reach mismapped on TRIM.**
Sunnyside (424) FSR Crossings Hub 22	**Map 6**	Tsak C. 480-504200	2	**234AS**	9.653683.6112346	**S2**	CR	4.7	6.52	15.62	CO (CT DV RB)	N	Additional sampling site. Confirmed fish presence. See Addendum for more info. **Upper extent of R2 marks distribution limits for CO. Lower 500m of reach mismapped on TRIM.**
Sunnyside (424) FSR Crossings Hub 22	**Map 6**	Tsak C. 480-504200	3	**235AS**	9.652827.6112133	**S2**	IM	5.6	5.75	9.52	NFC (CT DV RB)	N	Additional sampling site. Assumed fish presence. See Addendum for more info.

6.1.2 Non-fish Bearing Reaches

Table 2: Summary of data of non-fish bearing drainages in Smithers Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84617-2	**Map 10**	(AA-R1) 480-531000-89028	2	**7**	14-Jul-08	**S6**	*	*	*	DRY	NA	NA	NA	NS	NA	NA	NA	**Re-sampling of site 213 from 2007. Confirmed fish absence.** Stream disperses just upstream of wetland, no fish access, no isolated fish population present. Sampled by Triton in 1996 with NFC.
A84617-1	**Map 10**	480-531000	7	**8**	14-Jul-08	**S6**	*	*	*	NA	9	110	C	EF	NFC	187/150	400/80/6	**Re-sampling of site 209. Confirmed fish absence.** Stream disperses just upstream of wetland, no fish access. No isolated fish population present.
A82786-1	**Map 10**	480-531000-05800	4	**9**	15-Jul-08	**S6**	*	*	*	NA	9	80	C	EF	NFC	199/500	500/80/6	**Re-sampling of site 199 from 2007. No fish habitat.** Stream has no suitable fish habitat, flows only seasonally for a few weeks at the beginning of summer.
A82783-1	**Map 8**	78311 / 480-525800-41873	3	**901**	15-Jul-08	**S6**	1.2	1.52	0.30	L	16	110	C	EF	NFC	186/150	500/80/6	**Re-sampling of site 199 from 2007. Confirmed fish absence**. Stream has no suitable fish habitat, enters wetland with many shallow ponds choked by aquatic vegetation, water completely contained within wetland; inaccessible to fish. Sampled last year, and in 1996 by Triton, NFC in both ocassions.
Road 5897-45 Crossing	**Map 2**	480-249400-14300-14700	2	**10X**	16-Jul-08	**S6**	5.3	1.52	0.22	L INT	9	90	C	EF	NFC	57/500	500/80/6	**No fish habitat -** stream is inaccessible to fish due to an impassable cascade barrier (2m high and 6 m long) at the start of the reach (UTM 9.631382.6162426). No perennial fish habitat to support isolated fish population u/s of barrier.
A82780	**Map 4**	(AD1) 78004	2	**12**	1-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - Stream becomes NCD @ site location, and has no continuous scoured channel or fluvial deposits. Channelized sections do not exceede 50m in length.
A82780	**Map 4**	(AD1) 78004	1	**13**	1-Aug-08	**S6**	5.7	0.72	0.63	DRY	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seasonal stream with suitable cover for fish when watered only within 25m from mouth and can be used as a refuge habitat; and no in-stream cover beyond.

Table 2: Summary of data of non-fish bearing drainages in Smithers Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A82780	**Map 4**	(AB2) 78004	1	**14**	7-Aug-08	**S6**	5.5	0.65	0.45	L INT	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seasonal stream inaccessible to fish due to dispersion near wetland ; stream inaccessible and does not provide fish habitat.
A82780	**Map 4**	(AB2) 78004	2	**15**	1-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage with no continuous scoured channel or fluvial deposits. Many dispersion sections along the drainage course.
A82780	**Map 4**	(AH1) 78001	2	**17**	4-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage with no continuous scoured channel or fluvial deposits. 5-10m long discontinuities between 30-60m scoured sections. Stream is too shallow even at the high flowsto provide habitat for CT downstream of transition section.
A82774-1	**Map 3**	54701	4	**20**	2-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage has no continuous scoured channel or fluvial deposits.
A82774-1	**Map 3**	54701	3	**21**	2-Aug-08	**S6**	0.3	0.83	0.13	L	10	NA	C	NS	NA	NA	NA	**No fish habitat** - small and shallow seasonal trickle over muddy substrate, and which disperses in alder corridor @ site location, no channel observed downstream of site location for over 100 m.
A82774-1	**Map 3**	54710	1	**21A**	2-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present at mapped location or 100m radius.
A82774-1	**Map 3**	54711	1	**21B**	2-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present at mapped location or 100m radius.
A82774-1	**Map 3**	54702	2, 3	**22**	2-Aug-08	**S6**	1.5	1.40	0.28	L	14	NA	C	NS	NA	NA	NA	**No fish habitat -** stream drains to confirmed NFB parent stream (Triton 96, FINS 07).
A82774-1	**Map 3**	54705	1	**23**	2-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** drainage channelized for 50m near parent stream than seeps through the wetland.
A82774-1	**Map 3**	54712	1	**23A**	2-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present at mapped location or 100m radius.
A82774-1	**Map 3**	54703	1	**24**	2-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** short seepage through the alder corridor.
A82774-1	**Map 3**	54704	1	**25**	2-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** flows through small gully upstream of logged area and through discontinuous channel within logged area.

Table 2: Summary of data of non-fish bearing drainages in Smithers Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A82774-1	**Map 3**	54720	3.2	**26**	3-Aug-08	**S6**	3.3	2.67	0.33	L	12	120	C	EF	NFC	621/100	400/80/6	**No fish habitat -** stream drains to confirmed NFB parent stream (Triton 97, FINS 07).
A82774-1	**Map 3**	54721	1	**27**	3-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - short and unmapped seepage through the alder corridor channelized near confluence with parent stream.
A82774-1	**Map 3**	54722	1	**28**	3-Aug-08	**S6**	3.0	1.48	0.23	L INT	14	NA	C	NS	NA	NA	NA	**No fish habitat -** stream drains to confirmed NFB parent stream (Triton 96, FINS 07).
A82774-1	**Map 3**	54723	1	**31**	5-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** short seepage through the alder corridor.
A82774-1	**Map 3**	54713	1	**31A**	5-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present at mapped location or 100m radius.
A82774-1	**Map 3**	54724	1	**32**	5-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** occasionally scoured channel, discontinous fluvium.
A82774-1	**Map 3**	54725	2	**33**	5-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** some short sections of scoured channel, with few gravels exposed.
A84620-2	**Map 6**	(AA-R1) 480-512900	2	**138**	18-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - gully draw through devil's club and alder, some isolated puddles of water, no fluvium, scour and continuity.
A84619-4	**Map 6**	(AA-R1) 480-517900	2	**139AS**	18-Sep-08	**S6**	11.0	*	*	NA	10	340	C	EF	NFC	105/400	300/80/4	**No fish habitat** - shallow and fast creek with very poor in-stream cover. Not utilized by fish. Originally sampled near mouth by Triton in 1997 with no fish capture. Sampled to determine fish use.
A84619-4	**Map 6**	(AA-R1) 480-517900	3	**140**	18-Sep-08	**S6**	4.5	1.67	0.39	L	10	340	C	EF	NFC	397/600	300/80/4	**No fish habitat** - Stream with only rearing potential. No fish in reach downstream and further upstream as well. Not utilized by fish. Originally sampled near mouth by Triton in 1997 with no fish capture.
A84620-1	**Map 6**	(AB-R1) 18001	1	**141A**	18-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - no drainage on the steep slope.
A84620-1	**Map 6**	(AB-R1) 18001	2	**141**	18-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through alder patch with occasional mud puddles. 30m long channelized section near site UTM disperses with no sign of drainage on the steep slope downstream.

Table 2: Summary of data of non-fish bearing drainages in Smithers Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84620-1	**Map 6**	(AA-R1) 480-517900	5, 6	**142**	18-Sep-08	**S6**	12.3	1.23	0.30	L	10	280	C	EF	NFC	103/150	300/80/4	**No fish habitat** - Stream with only very limited rearing potential, fast at higher flows. No fish in lower reaches and during sampling near mouth in 1997 by Triton.
A84619-1	**Map 8**	(AA/AC-R1) 480-519200	2	**144**	19-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage through ~10m wide swale vegetated by alder. Scoured sections and fluvium do not exceede 60m in length - not a stream.
A84619-1	**Map 8**	(AD-R1) 7002	1	**145**	19-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage through alder with devil's club patch with scarce scoured and dry pools; no continuity, fluvium or banks; more pronounced near the confluence with mismapped stream AB-R1 - not a stream.
A84619-1	**Map 8**	(AB-R1) 480-525800-10400	3, 4	**146**	19-Sep-08	**NCD / S6**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage with no continuous scoured channel bed and fluvium for ~150m upstream from road crossing. Near the road there is NCW (small swamp) with dry and disconnected puddles where streams 7001 and 480-525800-10400 converge.
A57933-1	**Map 8**	(AA-R1) 7003	1	**147X**	19-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - occasionally flooded ~20m wide valley vegetated by alder, lady fern and devil's club; no scoured channel bed or fluvium - not a stream.
A57933-1	**Map 8**	(AB-R1) 7001	3	**148**	20-Sep-08	**S6**	1.6	1.4667	0.3	L	9	180	C	EF	NFC	301/300	300/80/4	**No fish habitat** - Stream with only rearing potential. Disperses near the road in NCW (small swamp) with dry and disconnected puddles where stream 480-525800-10400 converge.
A84618-2	**Map 7**	(AF-R1) 480-525800-41873	8	**149**	20-Sep-08	**S6**	18.3	1.17	0.43	L	8	110	C	NS	NA	NA	NA	**No fish habitat** - small and steep stream with no suitable habitat; flows into NFB stream (confirmed this year).
A84618-2	**Map 7**	(AG-R1) 7004	1	**150**	20-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage through alder with devil's club patch in a wide gully. Sections of gully bottom have exposed cobbles with boulders up to 3m wide; humus deposition downstream and where water from snowmelt runoff disappears. Sections of scoured channel bed and fluvial material only 20-40 m long - not a stream.

Table 2: Summary of data of non-fish bearing drainages in Smithers Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84618-1	**Map 7**	(AF-R1) 480-525800-41873	10, 11	**151**	20-Sep-08	**S6 / NCD**	7.8	1.13	0.23	L	10	60	C	NS	NA	NA	NA	**No fish habitat** - tiny and seasonal stream which flows into confirmed this year NFB drainage.
A84618-1	**Map 7**	(AI-R1) 7004	1	**152**	20-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through alder patch with hardly any evidence of surface flow. Originates in small ponds used by ungulates for wallowing.
A84618-1	**Map 7**	(AE-R1) 7006	4	**153**	20-Sep-08	**S6**	5.3	1.07	0.25	L	9	70	C	NS	NA	NA	NA	**No fish habitat** - tiny and seasonal borderline stream/NCD which dissipates in dry muddy deposits.
A84618-1	**Map 7**	(AE-R1) 7006	3	**154**	20-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - mostly seepage through alder with devil's club patch in a wide and shallow gully which ends in small NCW at the southern block boundary. Sections of gully bottom have discontinuous scoured channel bed with fluvial material only 10-20m long - not a stream. Two NCD outflows from NCW.
A84618-1	**Map 7**	(AA-R1) 7001	5	**155**	21-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through 30m wide alder patch with hardly any evidence of surface flow.
A84618-1	**Map 7**	(AA-R1) 7001	1	**156AS**	21-Sep-08	**S6**	1.0	1.50	*	L	10	120	C	EF	NFC	429/520	400/80/6	**No fish habitat -** sampled stream from crossing to its dissipation - no fish present in the system**.** Stream dissipate 100m north of mapped wetland at UTM 9.647879.6107547 and is inaccessible to fish from Torkelson Lake. Sampled by Triton in 1996 with NFC.
A84618-1	**Map 7**	(AB-R1) 460-081700-43900-61600-6460	4, 5, 6	**156**	21-Sep-08	**S6 / NCD**	9.3	1.08	0.27	L INT	9	NA	C	NS	NA	NA	NA	**No fish habitat** - tiny and moderately steep stream with v. poor instream cover at any flow conditions; stream trickles between large substrate at low flows and is too fast for fish at moderate and high flows. Inaccessible to fish from Torkelson Lake due to no visible channel reported by Triton in 1996 in R3.
A84622-1	**Map 9**	(AB-R1) 480-897200-65700-36200	4	**157**	21-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through boggy swale.
A84622-1	**Map 9**	(AC-R1) 7012	NA	**158**	21-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - no drainage present within the block.

Table 2: Summary of data of non-fish bearing drainages in Smithers Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A66819	**Map 9**	(AA-R1) 7012	3	**159**	21-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through ~20m wide alder patch with sparse evidence of surface flow and isolated scour.
A66819	**Map 9**	(AC-R1) 5007	1	**160**	21-Sep-08	**NCD**	*	*	*	L	10	NA	C	NS	NA	NA	NA	**No fish habitat** - mostly seepage with discontinuous channelized sections within 105m upstream of 4000 FSR and seepage through swampy area downstream of road. Confirmed Silvicon's findings from 2000.
A66819	**Map 9**	(AC-R2) 5007	2	**161**	22-Sep-08	**S6**	5.5	1.08	0.22	L	8	90	C	EF	NFC	157/800	400/80/6	**No fish habitat** - tiny and seasonal stream which disperses near 4000 FSR. No perennial habitat and no isolated fish population present. Confirmed Silvicon's findings from 2000.
A84622-1	**Map 9**	(AD-R1) 480-525800-72300	2	**162**	22-Sep-08	**S6**	0.6	1.25	0.36	L INT	8	80	C	EF	NFC	327/200	500/80/6	**No salmonid habitat** - slow flows even at high water, substrate composed of silts and organic material, likely oxygen defficiency through summer, fall and winter. Sampled twice in 1996 by Triton with NFC.
Sunnyside (424) FSR Crossings Hub 58	**Map 6**	42401	1	**222X**	19-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage discontinuously scoured on th u/s side of the road; no fluvium within 4-7% gradient, scour isolated and onlu within steeper sections; isolated puddles on d/s side of road. Not a stream as per definition.
Sunnyside (424) FSR Crossings Hub 57	**Map 6**	42402	1	**223X**	19-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage with ocassional scoured channel bed and fluvium through shallow gully - not a stream as per definition; completely dissipates 30m d/s of crossing.
Sunnyside (424) FSR Crossings Hub 56	**Map 6**	42403	1	**224X**	19-Oct-08	**NCD**	9.5	0.93	0.20	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - continuously scoured channel bed with fluval deposits only for 90m u/s of crossing; seepage beyond; discontinuous d/s of crossing, dissipates within 60m d/s of crossing - not a stream as per definition.
Sunnyside (424) FSR Crossings Hub 47	**Map 6**	42404	4	**225X**	19-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage with organic deposits d/s of crossing, seepage u/s - not a stream as per definition.

Table 2: Summary of data of non-fish bearing drainages in Smithers Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
Sunnyside (424) FSR Crossings Hub 46	**Map 6**	42404	3	**226X**	19-Oct-08	**S6**	13.2	0.78	0.21	L	2	NA	NA	NS	NA	NA	NA	**No fish habitat** - ~140m long scoured channel with fluvium, becomes steep NCD for another ~160m, than becomes a stream again. Inaccessible to fish, no perennial fish habitat.
Sunnyside (424) FSR Crossings Hub 37	**Map 6**	42404	1	**227**	19-Oct-08	**S6**	3.2	0.62	*	L	2	NA	C	NS	NA	NA	NA	**No fish habitat** - tiny and inaccessible stream d/t 6m high and 25m long cascade barrier at mouth. No perennial habitat, no isolated fish population present.
Sunnyside (424) FSR Crossings Hub 37	**Map 6**	42404	1	**227X**	19-Oct-08	**S6**	3.2	0.62	0.22	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - tiny and inaccessible stream d/t 6m high and 25m long cascade barrier at mouth. No perennial habitat, no isolated fish population present.
Sunnyside (424) FSR Crossings Hub 39 & 42	**Map 6**	42405	2	**228X**	19-Oct-08	**NCD/S6/ NCD**	4.3	0.93	0.21	L	2	NA	NA	NS	NA	NA	NA	**No fish habitat** - 200m long small and isolated stream with no perennial habitat to support fish; disperses downstream of crossing in R1; NCD in R3

6.1.3 Additional Sampling

No reaches for follow-up sampling were identified.

6.2 Houston Field Unit

6.2.1 Summary of all Surveyed Reaches

Table 3: Summary of data of all surveyed drainages in Houston Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
A84067	**Map 13**	64004	1	**29**	9.625770.5952556	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A84069	**Map 14**	62161	1	**30**	9.627816.5963056	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A84080	**Map 16**	Johnny David C. 460-778000	4	**34AS**	9.665573.6052212	*	IM	*	*	*	RB	N	Additional sampling site. Confirmed fish presence.
A84080	**Map 16**	460-778000-76002	1	**34**	9.665598.6052213	**S3**	MG	2.8	1.92	1.00	NFC (RB)	N	Poor RB habitat - stream exhibits signs of seasonality, water much cooler than in Johnny David C. and spawning habitat available only in 70m section near mouth. **Stream is easily accessible to RB from Johnny David C. as no barriers to fish found between mouth and proposed crossing. RB instantly captured in Johnny David C.**
A84080	**Map 16**	460-778000-76002	1	**34X**	9.665937.6052476	**S3**	MG	2.8	1.92	1.04	NFC (RB)	N	Poor RB habitat - stream exhibits signs of seasonality, water much cooler than in Johnny David C. and spawning habitat available only in 70m section near mouth. **Stream is easily accessible to RB from Johnny David C. as no barriers to fish found between mouth and proposed crossing. RB instantly captured in Johnny David C.**
A84081	**Map 11**	8101	2	**35**	9.611007.6009902	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped on TRIM.**
A84077	**Map 12**	7701	1	**36**	9.618782.6011541	**FSZ**	MG	5.5	1.40	0.60	NS	N	Potentially accessible to CT for 40m. CT documented in the system by D. Bustard in 1997. **Unmapped tributary on TRIM.**
A84077	**Map 12**	7701	1	**36X**	9.618722.6011754	**S6**	NA	14.3	1.40	0.97	NS	N	Confirmed non-fish bearing. **Unmapped tributary on TRIM.**
A84072	**Map 18**	7201	2	**37**	9.679355.5990919	**S6**	NA	0.5	1.72	0.56	NFC	N	Confirmed non-fish bearing.
Fulton FSR 21.2KM Crossing	**Map 19**	40277	1	**137X**	9.671243.6083487	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
Road 9111-11 Crossing	**Map 15**	(AA-R1) Summit C. 460-672800	18	**219**	9.651693.6041270	**S6**	NA	6.5	1.05	0.35	NFC	N	Confirmed non-fish bearing.
Road 9111-11 Crossing	**Map 15**	(AA-R1) Summit C. 460-672800	18	**219X**	9.652031.6041201	**S6**	NA	6.5	1.05	0.35	NFC	N	Confirmed non-fish bearing.
Robert Hatch FSR (~1km) Crossing	**Map 17**	Robert Hatch C. 460-788200-05100	10	**220**	9.669680.6056915	**S4**	MG	2.3	1.32	0.34	NFC (RB)	N	Stream with overall good rearing habitat available and has potential for overwintering. Access to habitat temporarily impeded by beaver dams within swampy area downstream of crossing - no permanent physical obstructions were noted. **RB was captured in tributary at the North FSR crossing. All measurements were taken in the forested area upstream of branch road - stream at the eastern boundary of old cutblock disturbed by pre-FPC management practices.**

Table 3: Summary of data of all surveyed drainages in Houston Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
Robert Hatch FSR (~1km) Crossing	**Map 17**	460-788200-05100-88300	1	**221AS**	9.668505.6056344	*	*	*	*	*	RB	N	Additional sampling site. Confirmed fish presence. **CMP at Mitchell Bay (North) FSR at ~47.7KM is a barrier to fish migaration - RB captured in the plunge pool.**

6.2.2 Non-fish Bearing Reaches

Table 4: Summary of data of non-fish bearing drainages in Houston Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84067	**Map 13**	64004	1	**29**	4-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - steep NCD - scoured channel within steep section downstream of proposed crossing (Slope 26-33%) however discontinuous; peters out before reaching Ootsa L. (Tahtsa Reach). Upstream of crossing frequently discontinuous scoured sections mixed with overland flow when watered.
A84069	**Map 14**	62161	1	**30**	4-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage with discontinous channel near wetland adjacent to Twinkle L. for ~30m. Drains small wetland upstream
A84081	**Map 11**	8101	2	**35**	6-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through swale/valley bottom, no scoured channel bed, just mud puddles**.**

Table 4: Summary of data of non-fish bearing drainages in Houston Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84077	**Map 12**	7701	1	**36X**	6-Aug-08	**S6**	14.3	1.40	0.20	L INT	11	NA	C	NS	NA	NA	NA	**No fish habitat** - Stream was almost completely dewatered during the survey in the beginning of August. Stream has only poor but potentially usable sasonal habitat within 40m long and low gradient (5-6%) section from mouth where access to CT from lake is unobstructed (UTM 618782.6011541). This section was assigned 40m long FSZ. Beyond this section stream is too steep for fish use due to lack of suitable in-stream cover when watered in spring/early summer. No spawning or overwintering habitat was noted within the entire 225m length assessed.
A84072	**Map 18**	7201	2	**37**	7-Aug-08	**S6**	0.5	1.72	0.28	L	12	70	L	EF	NFC	170/200	400/80/6	**No fish habitat** - entire Cordella C. drainage was sampled extensively from 2004 - 2007 with no fish capture. Both lakes in the system are too shallow to provide overwintering habitat, sampled reaches did not contained overwintering pools and Cordella C. reaches downstream of lake have seasonal flows only. Reaches adjacent to lakes are swampy and do not contain suitable RB habitat. Cordella C. is utilized by RB only in two reaches adjacent to Francois Lake for approximately 1.5 km. (FINS 2004, 2006)
Fulton FSR 21.2KM Crossing	**Map 19**	40277	1	**137X**	17-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage from small wetland on north side of the road - isolated muddy puddles, watered occasionally, no continous scoured channel bed, channel or fluvial material - not a stream.
Road 9111-11 Crossing	**Map 15**	(AA-R1) Summit C. 460-672800	18	**219**	10-Oct-08	**S6**	6.5	1.05	0.29	L	4	60	C	EF	NFC	218/400	500/80/6	**No fish habitat** - small stream with only potential rearing habitat available, no spawning or overwintering habitat noted. Lake downstream is also too shallow to provide viable overwintering habitat (indicated by the presence of yellow waterlilies in the middle of the lake) . During electrofishing of stream section within wetland , abundance of fresh water shrimps was noted, which is another indicator of fish absence in the lake and stream.

Table 4: Summary of data of non-fish bearing drainages in Houston Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
Road 9111-11 Crossing	**Map 15**	(AA-R1) Summit C. 460-672800	18	**219X**	10-Oct-08	**S6**	6.5	1.05	0.29	L	4	60	C	EF	NFC	218/400	500/80/6	**No fish habitat** - small stream with only potential rearing habitat available, no spawning or overwintering habitat noted. Lake downstream is also too shallow to provide viable overwintering habitat (indicated by the presence of yellow waterlilies in the middle of the lake) . During electrofishing of stream section within wetland , abundance of fresh water shrimps was noted, which is another indicator of fish absence in the lake and stream.

6.2.3 Additional Sampling

No reaches for follow-up sampling were identified.

6.3 Burns Lake Field Unit

6.3.1 Summary of all Surveyed Reaches

Table 5: Summary of data of all surveyed drainages in Burns Lake Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
BLFU_08_BL	**Map 21**	40033 / 460-926658-55577-46706	1	**38**	9.688319.6025690	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_BL	**Map 21**	40032 / 460-926658-55577	2, 3	**39**	9.688560.6025549	**S6**	NA	3.3	1.40	0.34	NS	N	Confirmed non-fish bearing. **Becomes NCD @ UTM 9.688581.6025496.**
BLFU_08_BL	**Map 21**	40032 / 460-926658-55577	1	**349**	9.688030.6026140	**S6**	NA	2.5	1.08	*	NS	N	**Historic Site.** Confirmed non-fish bearing by FINS in 2000.
BLFU_08_BL	**Map 21**	460-926658	3	**1**	9.687999.6026310	**S6**	NA	*	*	*	NS	N	**Historic Site.** Confirmed non-fish bearing by BH in 1999.
BLFU_08_BO	**Map 21**	40507	1	**40**	9.691799.6024704	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_BP	**Map 20**	180-374000-95200-01900-9330	1	**1**	9.694396.6025506	**S3**	*	2.0	2.50	*	RB	N	**Historic Site.** RB captured by RJA in 1996.
BLFU_08_BP	**Map 20**	180-374000-95200-01900-9330	2	**2**	9.692806.6024857	**S3**	*	4.0	2.80	*	NFC (RB)	N	**Historic Site.** RB suspected by RJA in 1996.
BLFU_08_BP	**Map 20**	180-374000-95200-01900-9330	4	**164**	9.691654.6024491	**S3**	*	2.0	1.80	*	RB	N	**Historic Site.** RB captured by FINS in 1998.
BLFU_08_BP	**Map 20**	40506	3	**41**	9.692844.6024446	**S6**	NA	6.7	0.82	0.34	NS	N	Confirmed non-fish bearing. **Diverted by an old overgrown logging road at UTM 9.692891.6024449**
BLFU_08_BP	**Map 20**	40506	1	**42**	9.693089.6024831	**S6**	NA	10.0	0.70	0.30	NS	N	Confirmed non-fish bearing. **Becomes NCD @ UTM 9.693060.6024727**
BLFU_08_BP	**Map 20**	40103	1	**43**	9.693231.6024929	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_BW	**Map 20**	40108	2	**44**	9.694204.6025879	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **No drainage in R1.**
BLFU_08_BW	**Map 20**	40501	1	**1**	9.693860.6025978	**S6**	NA	25.0	0.40	*	NFC	N	**Historic Site.** Confirmed non-fish bearing by RJA in 1996, verified this year.
BLFU_08_BW	**Map 20**	40501	2	**45**	9.693890.6025949	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_BW	**Map 20**	40106	1	**46**	9.693773.6026061	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_BW	**Map 20**	40107	1	**47**	9.693876.6026326	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_BW	**Map 20**	40105	1	**48**	9.693974.6026359	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_BW	**Map 20**	180-374000-95200-01900-9330-7250	2.2	**49AS**	9.693633.6025869	**S3**	IM	3.0	1.7	0.79	RB	N	Accessible and used by RB up the site location. RB very abundant downstream.
BLFU_08_BW	**Map 20**	180-374000-95200-01900-9330-7250	3	**49**	9.693623.6025866	**S5**	NA	0.3	4	2.96	NFC	N	Confirmed non-fish bearing**. Start of wetland marks End of Fish Use in the system @ UTM 9.693623.6025866.**

Table 5: Summary of data of all surveyed drainages in Burns Lake Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
BLFU_08_BP	**Map 20**	40505	1	**50**	9.693919.6025312	**S4**	MG	3.3	1.37	0.40	NS (RB)	N	RB habitat limited to only early summer during moderate flows before stream dries out. Stream has very poor instream cover, however is easily accessible to fish and can be used as a migratory route to R2 where suitable permanent habitat exists.
BLFU_08_BP	**Map 20**	40505	2 &3	**80**	9.693934.6024967	**S3 /S6**	MG/NA	4.5	1.62	*	NFC	N	**Historic Site.** Confirmed non-fish bearing by FINS in 2001 u/s of 2m high falls barrier. Usable and accessible habitat d/s of falls, but access to RB affected by low flows and dewatering in R1.
BLFU_08_BP	**Map 20**	40104	1	**51**	9.693695.6025165	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_BN	**Map 20**	40101	1	**52**	9.692472.6026270	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM - located approx. 40 m to the north.**
BLFU_08_BW	**Map 20**	40102	3	**53**	9.693002.6027596	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_BN	**Map 20**	180-374000-95200-01900-9330-7250	6	**54**	9.691750.6027044	**S6**	NA	0.5	2.73	1.68	NFC	N	Confirmed non-fish bearing.
BLFU_08_BM	**Map 20**	40504	1	**55**	9.694866.6025025	**S6**	NA	6.6	2.58	2.47	NFC	N	Confirmed non-fish bearing. **Becomes NCD @ UTM 9.694631.6024316. Partially mismapped on TRIM.**
BLFU_08_BM	**Map 20**	40503	2.1; 2.2	**56**	9.694664.6025188	**S5 / S6**	NA	3.9	3.15	4.38	NFC	N	Confirmed non-fish bearing. **Riparian classification changes from S5 to S6 at the conflunce with stream 40504 (UTM 9.694861.6025043).**
BLFU_08_BM	**Map 20**	40503	1	**57**	9.694575.6025165	**S3**	IM	5.0	3.37	3.50	RB	N	Confirmed RB presence downstream of falls. **2m falls at UTM 9.694664.6025188 mark EFU and riparian classification change from S3 to S5.**
BLFU_08_BM	**Map 20**	40503	3	**58**	10.305050.6024789	**S6**	NA	2.6	2.15	1.22	NS	N	Confirmed non-fish bearing.
BLFU_08_BM	**Map 20**	31200	4	**59**	10.306325.6024789	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_M	**Map 22**	180-374000-95200-01300-3580-9470	4	**60**	10.311100.6006129	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_L	**Map 22**	180-374000-95200-01900-3580-8920	2	**61**	10.313002.6004150	**S6**	NA	3.0	2.02	0.94	NFC	N	Confirmed non-fish bearing.
BLFU_08_L	**Map 22**	180-374000-95200-01900-3580-8920	3	**20**	10.311632.6004628	**S6**	NA	1.1	1.12	*	NFC	N	**Historic Site.** Confirmed non-fish bearing by FINS in 2000.
BLFU_08_K	**Map 23**	11215	1, 2	**62**	10.311106.6003695	**S6 / NCD**	NA	4.3	0.72	0.08	NFC	N	Confirmed non-fish bearing. **Original seepage was altered by constructed road in the past - road runoff and water collected in ditch from the road cut is directed to the forest where currently scoured channel is present at a different location than what is indicated on TRIM. NCD present on the upstream side of road @ UTM 10.311196.6004812.**
BLFU_O8_K	**Map 23**	180-374000-95200-66500-2390-5060	4	**63**	10.311193.6003715	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
2008_08_K	**Map 23**	180-374000-95200-66500-2390-5060	3	**64**	10.310915.6003265	**S6**	NA	6.5	1.15	0.41	NFC	N	Confirmed non-fish bearing.
BLFU_08_K	**Map 23**	11214	1	**65**	10.310946.6002994	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_K	**Map 23**	11213	1	**66**	10.311048.6002847	**NA**	NA	28.5	*	*	NS	N	No drainage.

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BLFU_08_K	**Map 23**	180-374000-95200-66500-2390-5060-490	1	**67**	10.311058.6002626	**S6**	NA	6.8	0.83	0.21	NS	N	Confirmed non-fish bearing.
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390-5060-490	2	**68**	10.311165.6002635	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_K	**Map 23**	11212	1	**69**	10.311500.6002691	**NA**	NA	*	*	*	NS		No drainage.
BLFU_08_K	**Map 23**	11211	1	**70**	10.310423.6001598	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_K	**Map 23**	11210	1	**71**	10.310508.6001641	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_K	**Map 23**	11208	2	**72**	10.312638.6001338	**S6**	NA	8.5	1.03	0.28	NS	N	Confirmed non-fish bearing.
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390-7140	1	**73**	10.313340.6001342	**S6**	NA	5.8	0.85	0.31	NS	N	Confirmed non-fish bearing.
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390	3	**74**	10.313925.6001429	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_K	**Map 23**	11202	1	**75**	10.314702.602157	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_J	**Map 24**	11006	1	**76**	10.316643.6001008	**FSZ /NCD**	NA	*	*	*	NFC	N	Not a FPC stream. **Lower 300m section of drainage is mismapped on TRIM. 70m long section from the confluence with the Tchesinkut C is assigned FSZ due to likelihood of being inhabited by RB during spring/summer (no fish were captured during this visit). Unmapped left bank tributary joins stream at the end of FSZ.**
BLFU_08_J	**Map 24**	11006	2	**66**	10.315964.6001126	**NCD**	NA	3.0	*	*	NFC	N	**Historic Site.** Confirmed not a FPC stream by FINS in 2001.
BLFU_08_J	**Map 24**	180-374000-95200-01900-3580-7460	2	**16**	10.316296.6000624	**S3**	IM	3.3	1.60	*	BMC RB	N	**Historic Site.** Confirmed fish-bearing stream by FINS in 2001. **Inhabited by BMC which is a Regionally Significant Species.**
BLFU_08_J	**Map 24**	180-374000-95200-01900-3580-7460	4	**77**	10.315731.6000275	**S4**	IM	2.3	1.30	0.50	RB	N	Confirmed RB presence. **Lower 300m section of drainage is mismapped on TRIM. 200m long section from the inflow to beaver pond at the edge of wetland adjacent to the lake has an excellent and important RB spawning habitat for the lake population - hundreds of RB fry were present.**
BLFU_08_J	**Map 24**	11203	1	**78**	10.315024.6000118	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_J	**Map 24**	180-374000-95200-01900-3580-7460	5	**79**	10.315038.6000099	**S4**	IM	*	*	*	RB	N	Confirmed RB presence and verified chasnnel width.
BLFU_08_J	**Map 24**	180-374000-95200-01900-3580-7460	7	**80**	10.315609.6000322	**S4**	IM	0.9	1.27	0.27	RB	N	Overall good RB spawning and rearing habitat present throughout although fish is not as abundant as in R4 and R5.
BLFU_08_L	**Map 22**	180-374000-95200-01900-3580-8920	1	**81**	10.313354.6003790	**S6**	NA	6.0	2.57	2.00	NS		Confirmed non-fish bearing.
BLFU_08_K	**Map 23**	11300	1	**82**	10.311349.6002642	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390	11	**83**	10.313323.6001225	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.

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BLFU_08_I	**Map 24**	180-374000-95200-01900-3580-7460-122	6	**84**	10.315774.5999202	**S6**	NA	3.3	1.22	0.37	NFC	N	Confirmed non-fish bearing.
BLFU_08_I	**Map 24**	11204	1	**85**	10.316526.5999014	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_I	**Map 24**	180-374000-95200-01900-3580-7460-122	4	**86**	10.316984.5999422	**S6**	NA	5.5	1.02	0.40	NFC	N	Confirmed non-fish bearing.
BLFU_08_I	**Map 24**	180-374000-95200-01900-3580-7460-122	3	**87AS**	10.317626.5999686	**S6**	NA	*	*	*	NFC	N	Additonal Sampling site. Confirmed non-fish bearing.
BLFU_08_I	**Map 24**	180-374000-95200-01900-3580-7460-122	2	**88AS**	10.317936.5999801	**S6**	NA	*	*	*	NFC	N	Additonal Sampling site. Confirmed non-fish bearing.
BLFU_08_K	**Map 23**	11301	1	**89**	10.315010.6001764	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
BLFU_08_J	**Map 24**	Tchesinkut C. 180-374000-95200-01900-3580	10	**2**	10.315971.6001410	**S3**	IM	2.0	4.33	*	RB	N	**Historic Site.** Confirmed fish-bearing stream by FINS in 2000.
BLFU_08_J	**Map 24**	Tchesinkut C. 180-374000-95200-01900-3580	9	**90**	10.316607.6000999	**S2**	MG	2.0	11.00	64.19	RB	N	**RB presence documented on numerous occasions in the past surveys by FINS, RJA, BIOTICA and BH.** This section of Tchesinkut C exhibits extensive erosion and frequent changes of channel location. Some sections resemble active floodplain. Occasionally stream inundates up to 70m wide section of the valley. Due to the stream's volatile nature, habitat for RB is very poor, however small side channels and observed slough very likely provide suitable refuge habitat during floods. One of the floodwater branches joins unmapped tributary ILP 11302 and which will likely become a side channel of Tchesinkut C in the near future. **Current location differs from TRIM.**
BLFU_08_J	**Map 24**	11302	1	**91**	10.316594.6000970	**S4**	MG	1.0	1.15	0.19	NS (RB)	N	**Stream is easily accessible to RB from Tchesinkut C.** Currently occasionally fed by flood waters from Tchesinkut C - will likely become one of its side channels in the future. **Unmapped on TRIM.**
BLFU_08_K	**Map 23**	11208	3	**92**	10.312573.6001953	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060	2.1	**93**	10.310041.5995424	**S6**	NA	5.0	0.85	0.21	NS	N	Confirmed non-fish bearing**. Banks and stream bed severely trampled by ranging cattle.**
BLFU_08_F	**Map 25**	180-374000-95200-65200-5960	2	**94**	10.309530.5995004	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_F	**Map 25**	11221	1	**95**	10.309009.5995362	**S6**	NA	1.7	1.82	0.58	NFC	N	Confirmed non-fish bearing.
BLFU_08_F	**Map 25**	11303	1	**96**	10.309035.5995410	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
BLFU_08_F	**Map 25**	11304	1	**97**	10.308977.5995637	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
BLFU_08_F	**Map 25**	11305	1	**98**	10.309039.5995686	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**

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BLFU_08_F	**Map 25**	11222	1	**99**	10.309000.5995528	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_F	**Map 25**	11219	1	**100**	10.309868.5995665	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060	2.2	**101**	10.309890.5995642	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_F	**Map 25**	180-374000-95200-66500-1693	2	**102**	10.308155.5996204	**NA**	NA	*	*	*	NS	N	No drainage. **Through air photo interpretation and field findings it was determined that the original TRIM stream flows into the stream ILP 11221 in R4.**
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060	5.1	**103**	10.310362.5997018	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_F	**Map 25**	11220	1	**104**	10.310403.5997550	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060-7531	1	**105**	10.310426.5997472	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060	5.2	**106**	10.310491.5997348	**S6**	NA	6.0	1.15	0.44	NS	N	Confirmed non-fish bearing. **Stream pops up from the ground @ UTM 10.310331.5997432 - no drainage beyond this point.**
BLFU_08_G	**Map 25**	11218	1	**107**	10.311372.5995856	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_G	**Map 25**	11216	1	**108**	10.311816.5995319	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_G	**Map 25**	11217	1	**109**	10.311793.5995352	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_G	**Map 25**	180-374000-95200-62100-5224	1	**110**	10.312508.5995585	**(S3)**	UND	6.3	1.73	1.98	NFC (RB)	Y	Overall poor RB habitat at high and moderate flows, stream is fast during those periods and carrying fair amount of debris, pools are too short to provide sufficient protection from turbulent waters. However, the stream is passable to the several deep pools located 375m u/s from mouth and to much better habitat in R2. **Requires resampling to determine fish use. Drainage mismapped on TRIM. Watershed is much larger than mapped and drains directly to fish-bearing stream WSC 180-374000-95200-62100.**
BLFU_08_G	**Map 25**	180-374000-95200-62100-5224	2	**111**	10.312126.5995784	**(S4)**	UND	3.3	1.25	0.31	NFC (RB)	Y	Overall good rearing and spawning habitat present for RB. **Stream habitat is severely damaged by pre-FPC logging practices. 500mm CMP at UTM 10.311994.5995817 is a barrier to fish. Requires resampling to determine fish use. Drainage mismapped on TRIM. Watershed is much larger than mapped and drains directly to fish-bearing stream WSC 180-374000-95200-62100.**
BLFU_08_G	**Map 25**	180-374000-95200-63000	3	**163**	10.311960.5995292	**NCD**	NA	0.8	*	*	NS	N	**Historic Site.** Confirmed not a FPC stream by FINS in 2000.
BLFU_08_G	**Map 25**	180-374000-95200-62100	4	**112**	10.312825.5996940	**S6**	NA	2.3	2.85	3.05	NFC	N	Confirmed non-fish bearing.
BLFU_08_H	**Map 24**	180-374000-95200-62100-9178-1183	2	**113**	10.312139.5998788	**S6**	NA	1.8	0.87	0.24	NS	N	Confirmed non-fish bearing.
BLFU_08_H	**Map 24**	180-374000-95200-62100-9178-1183	3	**114**	10.312553.5999145	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
BLFU_08_H	**Map 24**	11205	2	**115**	10.314136.5998845	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**

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BLFU_08_H	**Map 24**	11205	1	**116**	10.314219.5998638	**S6**	NA	13.0	0.48	0.10	NS	N	Confirmed non-fish bearing**. Mismapped on TRIM.**
BLFU_08_H	**Map 24**	180-374000-95200-01900-3580-7460-122	6	**117**	10.314289.5998641	**S6**	NA	2.1	0.90	0.12	NS	N	Confirmed non-fish bearing.
BLFU_08_H	**Map 24**	180-374000-95200-01900-3580-7460-122	7	**118**	10.314108.5998609	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_H	**Map 24**	11206	1	**119**	10.312100.5998383	**S6**	NA	6.0	1.05	0.60	NS	N	Confirmed non-fish bearing. **R1 and R2 mismapped on TRIM. R3 and R2 extensively disturbed by pre-FPC logging practices.**
BLFU_08_E	**Map 26**	180-374000-95200-69000	2	**120**	10.306021.5994252	**S6**	NA	4.3	2.32	3.56	NFC	N	Confirmed non-fish bearing.
BLFU_08_E	**Map 26**	180-374000-95200-69000	1	**120AS**	10.306030.5994252	**S3**	IM	*	*	*	RB	N	Confirmed RB presence downstream of falls. **1.5m falls at UTM 10.306021.5994252 mark EFU and riparian classification change from S3 to S6.**
BLFU_08_E	**Map 26**	180-374000-95200-69000-6248	2	**121**	10.305968.5995705	**S6**	NA	2.5	1.92	0.77	NFC	N	Confirmed non-fish bearing.
BLFU_08_E	**Map 26**	11225	2	**122**	10.306797.5996152	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
BLFU_08_E	**Map 26**	11224	1	**123**	10.306729.5995628	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_E	**Map 26**	180-374000-95200-69000-5695	1	**124**	10.306551.5995633	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_E	**Map 26**	11226	1	**125**	10.306171.5996010	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
BLFU_08_E	**Map 26**	11227	1	**126**	10.306110.5996067	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_B	**Map 27**	9102	1	**127**	9.680382.5993114	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_B	**Map 27**	9103	1	**128**	9.680488.5993399	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_A	**Map 27**	180-374000-95200-79400-4360	3	**129**	9.682643.5993102	**S6**	NA	1.0	1.27	0.33	NS	N	Confirmed non-fish bearing.
BLFU_08_A	**Map 27**	180-374000-95200-79400-4360	4,5,6	**130**	9.682623.5993507	**NCD/S6/ NCD**	NA	*	*	*	NS	N	No drainage. **Becomes stream again @ UTM 9.682277.5993651 and rip class changes to S6. Becomes NCD approx 200m further @ UTM 9.682251.5993809.**
BLFU_08_A	**Map 27**	9100	1	**131**	9.682272.5993807	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_A	**Map 27**	9101	1	**132**	9.682158.5994065	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_A	**Map 27**	9001	1	**133**	9.683530.5993381	**S6**	NA	1.1	1.38	0.30	NFC	N	Confirmed non-fish bearing.
BLFU_08_A	**Map 27**	180-374000-95200-79400	5	**29**	9.683764.5993211	**S3**	MG	2.8	2.02	*	NFC (RB)	N	**Historic Site.** Re-sampled Carmanah site 39 by FINS in 2004. Assumed RB use d/t no permanent barriers d/s and usable habitat present.
BLFU_08_D	**Map 26**	180-374000-95200-71200-2441-3269	1	**134**	9.695560.5993547	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.

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BLFU_08_D	**Map 26**	180-374000-95200-71200-2441	2	**20**	9.695465.5993635	**NCD**	NA	*	*	*	NS	N	**Historic Site.** Confirmed not a FPC stream by FINS in 2004.
BLFU_08_C	**Map 26**	180-374000-95200-71200-2990	5	**135**	9.694859.5996756	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
BLFU_08_C	**Map 26**	180-374000-95200-71200-2990	0.1	**21IS**	9.693455.5995403	**S4**	MG	*	*	*	RB	N	**Historic Site.** Confirmed fish-bearing stream by FINS in 2004.
BLFU_08_C	**Map 26**	180-374000-95200-71200-2990	1	**21**	9.694011.5995750	**S6**	NA	4.7	0.93	*	NFC	N	**Historic Site.** Confirmed non-fish bearing by FINS in 2004.
A82493-4	**Map 28**	180-374000-95200-41400-8240-6090	5	**163**	10.312610.5981935	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A82493-4	**Map 28**	93402	1	**164**	10.312514.5981358	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A82493-1	**Map 28**	93101	1	**165**	10.313481.5980384	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A82493-1	**Map 28**	Hawley C. / 180-374000-95200-41400-5280-5480	9.2	**166**	10.313522.5980216	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A82493-1	**Map 28**	93104	2	**167**	10.314169.5980847	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A82493-1	**Map 28**	180-374000-95200-41400-8240-5549-179-133	5 & 6	**168**	10.313930.5980716	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **R6 and R7 mismapped on TRIM.**
A82493-2	**Map 28**	180-374000-95200-41400-8240-5549-662	1 &2	**169**	10.315783.5980465	**S6/ NCD**	NA	1.1	4.33	0.16	NS	N	Confirmed non-fish bearing. **Stream becomes NCD at UTM 10.315625.5980327 .**
A82493-1	**Map 28**	180-374000-95200-41400-5280-2540	10	**170**	10.314642.5979869	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A82493-1	**Map 28**	180-374000-95200-41400-5280-2540-812	1	**171**	10.314609.5979332	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A82491-1	**Map 29**	91102	1	**172**	10.324528.5971958	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A82491-2	**Map 29**	180-374000-95200-41400-4320-5160	2	**1**	10.324628.5972476	**S6**	NA	7.0	0.66	*	NS	N	**Historic Sites**. Confirmed non-fish bearing by BH in 1999.
A82491-2	**Map 29**	180-374000-95200-41400-4320-5160	4.1 & 4.2	**173**	10.324256.5971559	**S6/ NCD**	NA	0.9	1.00	0.16	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 10.324141.5971744.**
A84450-1	**Map 31**	50102	1	**174**	10.336278.5980547	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
A84450-1	**Map 31**	50101	3	**175**	10.336140.5980247	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84450-2	**Map 30**	50203	2, 3	**176**	10.338905.5981878	**NCD/S6**	NA	*	*	*	NS	N	Not a FPC stream. **Becomes a small and steep stream at UTM 10. 339291.5981954.**
A84450-2	**Map 30**	50202	1	**177**	10.338696.5981732	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84450-2	**Map 30**	50201	1	**178**	10.338823.5981628	**NA**	NA	*	*	*	NS	N	No drainage.

Table 5: Summary of data of all surveyed drainages in Burns Lake Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
A84453	**Map 34**	45304	1	**179**	10.345352.5974476	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84453	**Map 34**	180-374000-95200-12500-8970	4	**180**	10.345166.5974603	**UND**	NA	2.8	1.43	0.70	NFC	Y	**Suspected fish absence** - stream with questionable potential rearing habitat for RB and no overwintering or spawning habitat for RB. Suspected that stream is inaccessible to RB due to the extensive wetland located ~1km downstream of site location and overall not conducive habitat to RB due to the excesive amount of organic material in stream bed. **Stream requires re-sampling in the early summer to determine fish status.**
A84453	**Map 34**	180-374000-95200-12500-8970	4	**180X**	10.344953.5974545	**UND**	NA	1.7	1.45	0.57	NFC	Y	**Suspected fish absence** - stream with questionable potential rearing habitat for RB and no overwintering or spawning habitat for RB. Suspected that stream is inaccessible to RB due to the extensive wetland located ~1km downstream of site location and overall not conducive habitat to RB due to the excesive amount of organic material in stream bed. **Stream requires re-sampling in the early summer to determine fish status.**
A84453	**Map 34**	180-374000-95200-12500-8970	5	**181**	10.344343.5974476	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84453	**Map 34**	180-374000-95200-41400-2870-5840-336-487	4	**182**	10.344709.5973926	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84453	**Map 34**	180-374000-95200-41400-2870-5840-336-487	2	**183**	10.344356.5973322	**S6/ NCD**	NA	12.0	0.73	0.33	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 10.344685.5973653.**
A84456	**Map 35**	45603	1	**184**	10.341895.5969003	**NA**	NA	*	*	*	NS	N	No drainage.
A84456	**Map 35**	45602	1	**185**	10.341172.5969455	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84456	**Map 35**	45601	1	**186**	10.341609.5970475	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84458-2	**Map 34**	180-374000-95200-41400-2870-5840-309	6	**187**	10.343299.5974223	**S6**	NA	11.0	1.78	1.49	NFC	N	Confirmed non-fish bearing.
A84458-2	**Map 34**	180-374000-95200-41400-2870-5840-309-900-508	2	**188**	10.342817.5974240	**S6**	NA	6.3	1.07	0.46	NFC	N	Confirmed non-fish bearing.
A84458-2	**Map 34**	180-374000-95200-41400-2870-5840-309-900-508	2	**188X**	10.342531.5974490	**S6**	NA	3.3	1.07	0.33	NFC	N	Confirmed non-fish bearing.
A84458-1	**Map 34**	180-374000-95200-41400-2870-5840-309-900-508	4	**189**	10.342439.5974780	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84458-1	**Map 33**	58101	1	**190**	10.341855.5975181	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84458-1	**Map 33**	83019	4	**191**	10.341605.5975734	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84458-1	**Map 33**	58102	1	**192**	10.341646.5975724	**NA**	NA	*	*	*	NS	N	No drainage.

Table 5: Summary of data of all surveyed drainages in Burns Lake Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
A84453	**Map 34**	180-374000-95200-41400-2870-5840-336	5	**193**	10.343892.5973131	**S6**	NA	2.4	1.43	0.69	NFC	N	Confirmed non-fish bearing.
A84453	**Map 34**	180-374000-95200-41400-2870-5840-336	5	**193X**	10.343817.5973278	**S6**	NA	2.4	1.43	0.69	NFC	N	Confirmed non-fish bearing.
A84458-2	**Map 34**	180-374000-95200-41400-2870-5840-309	4.2	**194AS**	10.342258.5972970	**S6**	NA	4.3	1.87	1.24	NFC	N	Confirmed non-fish bearing.
A84454-3	**Map 33**	180-374000-95200-41400-2560	8 & 9	**195**	10.343497.5976131	**S6/ NCD**	NA	7.7	0.88	0.20	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 10.343497.5976131.**
A84454-3	**Map 33**	54302	1	**196**	10.343457.5976010	**NA**	NA	*	*	*	NS	N	No drainage.
A84454-3	**Map 33**	54303	1	**197**	10.343463.5976189	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84454-2	**Map 33**	180-374000-95200-41400-2560	6 & 7	**198**	10.341443.5977744	**S3**	MG	2.1	3.73	4.49	RB	N	Stream with sparse RB population. Overall habitat affected by very limited instream cover particularly at higher flows; poor spawning and overwintering habitat.
A84454-1	**Map 33**	180-374000-95200-41400-2560-5360-789-279	1	**199**	10.340408.5976992	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84454-4	**Map 33**	180-374000-95200-41400-2560-5360-789	2 &3	**200**	10.340587.5976681	**S6/ NCD**	NA	8.0	0.73	0.13	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 10.340721.5976450.**
A84454-4	**Map 33**	180-374000-95200-41400-2560-5360-796	2	**201**	10.340360.5976046	**S6**	NA	10.8	1.02	0.68	NS	N	Confirmed non-fish bearing.
A84454-4	**Map 33**	54403	1	**202**	10.340464.5976039	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84454-4	**Map 33**	83019	1	**203**	10.340375.5974986	**S6**	NA	6.7	1.03	0.43	NS	N	Confirmed non-fish bearing.
A84452-2	**Map 32**	94501	2	**5**	10.344975.5981687	**NCD**	NA	*	*	*	NS	N	**Historic Site.** Confirmed not a FPC stream by FINS in 2005.
A84452-2	**Map 32**	133	3	**204**	10.345020.5980922	**S6**	NA	16.5	1.50	1.19	NS	N	Confirmed non-fish bearing. **Mismapped on TRIM.**
A84452-2	**Map 32**	52205	1	**204A**	10.344837.5981434	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84452-2	**Map 32**	52204	1	**205**	10.345136.5980800	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A84452-2	**Map 32**	133	1	**206**	10.344545.5981660	**S6**	NA	5.1	1.37	0.66	NS	N	Confirmed non-fish bearing. **Lower section mismapped on TRIM.**
A84452-1	**Map 32**	52102	1	**207**	10.343680.5980581	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84452-1	**Map 32**	180-37400-95200-39900-6900	2.2	**208**	10.343175.5980662	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84452-1	**Map 32**	180-37400-95200-39900-6900	3	**209**	10.343252.5980623	**S5**	NA	2.5	3.33	5.34	NS	N	Confirmed non-fish bearing.

Table 5: Summary of data of all surveyed drainages in Burns Lake Area.

Area or Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Site UTM (Z.E.N.)	Rip. Class	Habitat Value Rating	Grad (%)	Avg CW (m)	Q100 (m^3/s)	Sampling Results	Follow-up Sampl.	Comments
A84451-2	**Map 32**	51203	1	**210**	10.341754.5979742	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84451-2	**Map 32**	51201	2	**211**	10.341377.5979647	**S6**	NA	5.1	1.35	0.59	NS	N	Confirmed non-fish bearing.
A84451-2	**Map 32**	51202	1	**212**	10.341476.5979360	**NA**	NA	*	*	*	NS	N	No drainage.
A84450-3	**Map 30**	50304	2	**213**	10.341552.5982902	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM.**
A84450-3	**Map 30**	93501	2	**214**	10.341622.5983184	**S6**	NA	15.8	1.62	1.87	NS	N	Confirmed non-fish bearing.
A84450-3	**Map 30**	50304	1	**215**	10.341422.5983201	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Mismapped on TRIM - located ~80m to the west.**
A84450-3	**Map 30**	50302	1	**216**	10.341347.5983212	**NCD**	NA	*	*	*	NS	N	Not a FPC stream.
A84450-3	**Map 30**	50305	1, 2, 3 & 4	**217**	10.341132.5983138	**S6/ NCD**	NA	6.8	0.83	0.30	NS	N	Confirmed non-fish bearing. **Becomes NCD at UTM 10.340961.5982841. R2 & R3 mismapped on TRIM.**
A84450-3	**Map 30**	50306	1	**218**	10.340834.5982548	**NA**	NA	*	*	*	NS	N	No drainage.
BLFU_08_K	**Map 23**	11306	1	**230**	10.315093.6001623	**S6**	NA	7.0	0.82	0.20	NS	N	Confirmed non-fish bearing**. Unmapped on TRIM.**
BLFU_08_K	**Map 23**	11307	1	**231**	10.311628.6001450	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**
BLFU_08_BL	**Map 21**	40109	1	**232**	9.687653.6024351	**NCD**	NA	*	*	*	NS	N	Not a FPC stream. **Unmapped drainage on TRIM.**

6.3.2 Non-fish Bearing Reaches

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_BL	**Map 21**	40033 / 460-926658-55577-46706	1	**38**	8-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - flows through an alder patch with spradically scoured channel; fluvium sparse and discontinuous.
BLFU_08_BL	**Map 21**	40032 / 460-926658-55577	2, 3	**39**	8-Aug-08	**S6**	3.3	1.40	0.13	NA	12	NA	C	NS	NA	NA	NA	**No fish habitat** - stream drains to documented non-fish bearing stream (RJA 98, BH 99, FINS 00 & 05).
BLFU_08_BO	**Map 21**	40507	1	**40**	8-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through wetland - no channel, scour or fluvium.
BLFU_08_BP	**Map 20**	40506	3	**41**	8-Aug-08	**S6**	6.7	0.82	0.24	L	11	NA	C	NS	NA	NA	NA	**No fish habitat -** small stream inaccessible to fish - disperses at site UTM**.**
BLFU_08_BP	**Map 20**	40506	1	**42**	8-Aug-08	**S6**	10.0	0.70	0.24	L INT	12	70	C	NS	NA	NA	NA	**No fish habitat -** borderline stream/NCD - almost dry tiny trickle, too shallow and too steep to provide even seasonal RB habitat. Sampled in the past by FINS in 2001.
BLFU_08_BP	**Map 20**	40103	1	**43**	8-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** barely noticable seepage.
BLFU_08_BW	**Map 20**	40108	2	**44**	8-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** Seepage ending in seasonal collection pond with no outlet at site UTM.
BLFU_08_BW	**Map 20**	40501	2	**45**	9-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** barely a stream downstream of site UTM, descends to parent stream over slope with 22%, inaccessible to fish, visited in 1996 by RJA.
BLFU_08_BW	**Map 20**	40106	1	**46**	9-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** small wetland (~40x20m) fed by seepage through swale with no continuous scoured channel bed or fluvial deposits.
BLFU_08_BW	**Map 20**	40107	1	**47**	9-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** drainage through gentle gully with no continuous scoured channel bed or fluvial deposits.
BLFU_08_BW	**Map 20**	40105	1	**48**	9-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** Moist area through swale.
BLFU_08_BW	**Map 20**	180-374000-95200-01900-9330-7250	3	**49**	9-Aug-08	**S5**	0.3	4	0.5	L	16	110	L	NS	NA	NA	NA	**No salmonid habitat** - at the start of wetland stream flows through ~4m wide and shallow channel filled by aquatic vegetation. Flow becomes indescernible, water filmy and bubbles of methane were observed rising from the bottom of channel. Sampled in upper reaches by FINS in 1998 and this year - NFC on both occasions.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_BP	**Map 20**	40104	1	**51**	9-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat.** Barely a seepage through 20m wide swale. Moist area indicated by willows and twinberries. Seasonal pond near the very old road crossing.
BLFU_08_BN	**Map 20**	40101	1	**52**	21-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through swale vegetated by horsetail and twinberries - no channel, scour or fluvium.
BLFU_08_BW	**Map 20**	40102	3	**53**	21-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** water collection pond (50m x 8m) on the edge of the forest without outlet or inlet. Area south of pond disturbed by old landing.
BLFU_08_BN	**Map 20**	180-374000-95200-01900-9330-7250	6	**54**	21-Aug-08	**S6**	0.5	2.73	0.35	L	15	150	M	EF	NFC	137/100	300/80/6	**No salmonid habitat -** stream dammed by many BD's, valley mostly flooded with almost stagnant or barely flowing water, thick detritus layer on the bottom of short channels between ponds - likely oxygen deficiency throughout the year. NFC in 1998 by FINS.
BLFU_08_BM	**Map 20**	40504	1	**55**	22-Aug-08	**S6**	6.6	2.58	0.34	L	10	110	L	EF	NFC	158/400	400/80/6	**No fish habitat -** confirmed no isolated fish population present in the watershed upstream of 2m falls in the parent stream (ILP 40503).
BLFU_08_BM	**Map 20**	40503	2.1; 2.2	**56**	22-Aug-08	**S5 / S6**	3.9	3.15	0.43	L	10	12	L	EF	NFC	272/200	400/80/6	**No fish habitat -** No isolated fish population present upstream of 2m falls at UTM 9.694664.6025188. (NFC by RJA in 1996 and FINS in 2008).
BLFU_08_BM	**Map 20**	40503	3	**58**	22-Aug-08	**S6**	2.6	2.15	0.38	L	10	130	C	NS	NA	NA	NA	**No fish habitat -** confirmed no isolated fish population present in the watershed upstream of 2m falls at the end of R1. (NFC by RJA in 1996 and FINS in 2008).
BLFU_08_BM	**Map 20**	31200	4	**59**	22-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - no continous scoured channel bed or fluvial substrate ove 100m length - not a stream.
BLFU_08_M	**Map 22**	180-374000-95200-01300-3580-9470	4	**60**	23-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** seepage through squishy ground, no scoured channel bed or fluvium - just isolated puddles in swampy area.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_L	**Map 22**	180-374000-95200-01900-3580-8920	2	**61**	23-Aug-08	**S6**	3.0	2.02	0.45	M	12	90	L	EF	NFC	164/150	400/80/6	**No fish habitat -** No isolated fish population present in the stream and in entire Tchesinkut C. u/s of 6m high falls barrier. NFC in 6 sites in Tchesinkut C. watershed during sampling by Biotica in 1998 and FINS in 2000 and in this year.
BLFU_08_K	**Map 23**	11215	1, 2	**62**	23-Aug-08	**S6 / NCD**	4.3	0.72	0.15	H	11	30	M	EF	NFC	137/100	700/80/6	**No fish habitat -** tiny trickle with no perennial habitat, flows into non-fish bearing parent stream (FINS 2008).
BLFU_O8_K	**Map 23**	180-374000-95200-66500-2390-5060	4	**63**	23-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** drainage through gentle gully with no continuous scoured channel bed or fluvial deposits - puddles up from site location.
2008_08_K	**Map 23**	180-374000-95200-66500-2390-5060	3	**64**	23-Aug-08	**S6**	6.5	1.15	0.28	M	12	30	M	EF	NFC	352/400	700/80/6	**No fish habitat -** originally sampled by FINS in 1998 with NFC. Exhibits signs of seasonal flows, no spawning or overwintering habitat observed, not utilized by RB during higher flows.
BLFU_08_K	**Map 23**	11214	1	**65**	23-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** short drainage through steep gully with no continuous scoured channel bed or fluvial deposits - dissipates before reaching parent stream.
BLFU_08_K	**Map 23**	11213	1	**66**	24-Aug-08	**NA**	28.5	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius - just dry gully with no signs of water ever flowing.
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390-5060-490	1	**67**	24-Aug-08	**S6**	6.8	0.83	0.15	L INT	12	NA	M	NS	NA	NA	NA	**No fish habitat -** originally sampled by FINS in 1998 with NFC. Seasonal, shallow and moderately steep trickle, too steep to provide refuge habitat for fish from parent stream during high flows.
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390-5060-490	2	**68**	24-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** drainage through gully with no continuous scoured channel bed or fluvial deposits.
BLFU_08_K	**Map 23**	11212	1	**69**	24-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_K	**Map 23**	11211	1	**70**	24-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** meltwater runoff with barely scoured short sections of ground, discontinuous, no fluvium - not a stream.
BLFU_08_K	**Map 23**	11210	1	**71**	24-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_K	**Map 23**	11208	2	**72**	24-Aug-08	**S6**	8.5	1.03	0.20	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - stream seasonal, borderline stream/NCD within 245m section upstream from road, than more pronounced beyond within steeper section. NFC in R1 in 1998 and 2001 (FINS).
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390-7140	1	**73**	24-Aug-08	**S6**	5.8	0.85	0.21	L	11	NA	C	NS	NA	NA	NA	**No fish habitat -** isolated**,** tiny and moderately steep stream with no perennial habitat to support fish.
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390	3	**74**	24-Aug-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** mucky swale, no fluvial substrate or scoured channel bed - not a stream.
BLFU_08_K	**Map 23**	11202	1	**75**	24-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** steep (60%) and dry gully with no signs of water ever flowing.
BLFU_08_J	**Map 24**	11006	1	**76**	25-Aug-08	**FSZ/NCD**	*	*	*	NA	15	60	L	EF	NFC	97/40	500/80/6	**No fish habitat -** 70m long section from the confluence with the Tchesinkut C is assigned FSZ due to likelihood of being inhabited by RB during spring/summer (no fish were captured during this visit). No suitable RB habitat exist upstream of this section - drainage is not a stream. R2 visited three times in the past in 1998 (Biotica), 2000 and 2001 (FINS) with NFC.
BLFU_08_J	**Map 24**	11203	1	**78**	25-Aug-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius.
BLFU_08_L	**Map 22**	180-374000-95200-01900-3580-8920	1	**81**	1-Sep-08	**S6**	6.0	2.57	0.31	L	7	NA	L	NS	NA	NA	NA	**No fish habitat -** No isolated fish population present in the stream and in entire Tchesinkut C. u/s of 6m high falls barrier. NFC in 6 sites in Tchesinkut C. watershed during sampling by Biotica in 1998 and FINS in 2000 and in this year.
BLFU_08_K	**Map 23**	11300	1	**82**	1-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - no continuous scoured channel bed and fluvial deposits, periodically puddles up**.**
BLFU_08_K	**Map 23**	180-374000-95200-66500-2390	11	**83**	1-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - scour and fluvium sparse - no continuity. Water from tributary ILP 11208 completely dissipates within 25m long section downstream from road. Confirmed 2001 classification.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_I	**Map 24**	180-374000-95200-01900-3580-7460-122	6	**84**	2-Sep-08	**S6**	3.3	1.22	0.34	M	8	110	L	EF	NFC	247/300	400/80/6	**No fish habitat** - overall good potential RB rearing habitat available but stream is unutilized by fish. Extensive sampling in R4, R3 and resampling in R2 revealed no fish presence in the system.
BLFU_08_I	**Map 24**	11204	1	**85**	2-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - discontinuous multi-paths of scoured duff - not a stream.
BLFU_08_I	**Map 24**	180-374000-95200-01900-3580-7460-122	4	**86**	2-Sep-08	**S6**	5.5	1.02	0.35	H	9	110	L	EF	NFC	593/800	400/80/6	**No fish habitat** - overall good potential RB rearing habitat available but stream is unutilized by fish. Extensive sampling in R4, R3 and resampling in R2 revealed no fish presence in the system.
BLFU_08_I	**Map 24**	180-374000-95200-01900-3580-7460-122	3	**87AS**	2-Sep-08	**S6**	*	*	*	NA	9	110	L	EF	NFC	412/600	500/80/6	**No fish habitat** - overall good potential RB rearing habitat available but stream is unutilized by fish. Extensive sampling in R4, R3 and resampling in R2 revealed no fish presence in the system.
BLFU_08_I	**Map 24**	180-374000-95200-01900-3580-7460-122	2	**88AS**	2-Sep-08	**S6**	*	*	*	NA	9	110	L	EF	NFC	287/400	400/80/6	**No fish habitat** - overall good potential RB rearing habitat available but stream is unutilized by fish. Extensive sampling in R4, R3 and resampling in R2 revealed no fish presence in the system. NFC in 2000 (FINS).
BLFU_08_K	**Map 23**	11301	1	**89**	3-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - tiny seepage from small wetland.
BLFU_08_K	**Map 23**	11208	3	**92**	3-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage becomes NCD at site UTM - no continuity, fluvial deposits isolated, scoured sections alternate with overland flow.
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060	2.1	**93**	4-Sep-08	**S6**	5.0	0.85	0.16	L	10	NA	C	NS	NA	NA	NA	**No fish habitat** - tiny and seasonal stream with no offering for fish, too far (>2km) from Francois L. to be used seasonally.
BLFU_08_F	**Map 25**	180-374000-95200-65200-5960	2	**94**	4-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - steep gully with very sparse and isolated scoured dry pools.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_F	**Map 25**	11221	1	**95**	4-Sep-08	**S6**	1.7	1.82	0.38	M	10	120	C	EF	NFC	477/200	400/80/6	**No fish habitat** - stream with good potential perennial habitat, however inaccessible to fish d/t documented lack of channel near Francois Lake in parent stream. Confirmed NFB watershed. Parent stream sampled in R1 and R2 in 1997 by FINS.
BLFU_08_F	**Map 25**	11303	1	**96**	4-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage with isolated scour and channel, drains unmapped wetland adjacent to parent stream.
BLFU_08_F	**Map 25**	11304	1	**97**	4-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - Tiny drainage with only continuous channel and scour within lower 40m; frequent underground flow alternating with overland flow.
BLFU_08_F	**Map 25**	11305	1	**98**	4-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - Tiny seepage with isolated puddles, no continuous scoured channel bed - drains unmapped small swamp.
BLFU_08_F	**Map 25**	11222	1	**99**	4-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_F	**Map 25**	11219	1	**100**	4-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060	2.2	**101**	4-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - stream becomes a trickle without a continuous scoured channel bed; fluvial deposits limited to few scour pools; mostly overland flow.
BLFU_08_F	**Map 25**	180-374000-95200-66500-1693	2	**102**	5-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius. Many isolated watered or dry depressions without inflows or outflows between drumlin like hills.
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060	5.1	**103**	5-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage has no continuity, fluvial deposits are isolated, scoured sections alternate with overland flow within swale/valley.
BLFU_08_F	**Map 25**	11220	1	**104**	5-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060-7531	1	**105**	5-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage has no continuity, flow overland with isolated fluvial deposits in lower 100m than seeps through ground further upstream.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_F	**Map 25**	180-374000-95200-63900-8060	5.2	**106**	5-Sep-08	**S6**	6.0	1.15	0.17	L	10	NA	L	NS	NA	NA	NA	**No fish habitat –** reach is isolated from fish bearing waters; shallow headwaters reach .
BLFU_08_G	**Map 25**	11218	1	**107**	5-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - evidence of melt water runoff only - water collected in isolated mossy puddles (dry now) - no scoured channel bed or any fluvial material.
BLFU_08_G	**Map 25**	11216	1	**108**	5-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_G	**Map 25**	11217	1	**109**	5-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_G	**Map 25**	180-374000-95200-62100	4	**112**	5-Sep-08	**S6**	2.3	2.85	0.55	L	14	120	L	EF	NFC	248/150	400/80/6	**No fish habitat -** No isolated fish population present in the stream. NFC in four sites in watershed during sampling by FINS in 2000 and 2001 upstream of 13m high falls at the end of R2.
BLFU_08_H	**Map 24**	180-374000-95200-62100-9178-1183	2	**113**	6-Sep-08	**S6**	1.8	0.87	0.26	M	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** borderline stream/NCD, flows into documented NFB stream (FINS 2000, 2001, and 2008).
BLFU_08_H	**Map 24**	180-374000-95200-62100-9178-1183	3	**114**	6-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage becomes NCD at site UTM - no continuity, fluvial deposits isolated, scoured sections alternate with overland flow, puddles up, flows seasonal or after prolonged precipitation.
BLFU_08_H	**Map 24**	11205	2	**115**	6-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** seepage through squishy ground, no scoured channel bed or fluvium.
BLFU_08_H	**Map 24**	11205	1	**116**	6-Sep-08	**S6**	13.0	0.48	0.13	L	11	NA	M	NS	NA	NA	NA	**No fish habitat -** Becomes a stream ~250m from mouth. Drains to determined in this year NFB parent stream.
BLFU_08_H	**Map 24**	180-374000-95200-01900-3580-7460-122	6	**117**	6-Sep-08	**S6**	2.1	0.90	0.22	L	11	NA	L	NS	NA	NA	NA	**No fish habitat** - borderline stream/NCD. Extensive sampling in lower section of R6, in R4, R3 and resampling in R2 revealed no fish presence in the system.
BLFU_08_H	**Map 24**	180-374000-95200-01900-3580-7460-122	7	**118**	6-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage becomes NCD at site UTM - fluvial deposits and scoured channel becomes discontinuous.
BLFU_08_H	**Map 24**	11206	1	**119**	6-Sep-08	**S6**	6.0	1.05	0.60	M	12	NA	C	NS	NA	NA	NA	**No fish habitat -** flows into documented NFB stream (FINS 2000, 2001, and 2008).

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_E	**Map 26**	180-374000-95200-69000	2	**120**	7-Sep-08	**S6**	4.3	2.32	0.73	L	9	90	C	EF	NFC	193/200	400/80/6	**No fish habitat** - No isolated fish population present in the stream. NFC in four sites in watershed during sampling by FINS in 1997 and in two sites this year upstream of 1.5m high falls at the end of R1.
BLFU_08_E	**Map 26**	180-374000-95200-69000-6248	2	**121**	7-Sep-08	**S6**	2.5	1.92	0.32	L	9	110	L	EF	NFC	403/300	400/80/6	**No fish habitat** - No isolated fish population present in the stream. NFC in four sites in watershed during sampling by FINS in 1997 and in two sites this year upstream of 1.5m high falls at the end of R1.
BLFU_08_E	**Map 26**	11225	2	**122**	7-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** seepage through squishy ground, no scoured channel bed or fluvium.
BLFU_08_E	**Map 26**	11224	1	**123**	7-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** moist depression with dry puddles, no scoured channel bed or fluvium.
BLFU_08_E	**Map 26**	180-374000-95200-69000-5695	1	**124**	7-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** drainage lacks continuously scoured channel bed or fluvium. Mostly overland and seasonal flow with isolated scoured pools; some exposed cobbles.
BLFU_08_E	**Map 26**	11226	1	**125**	7-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - drainage lacks continuously scoured channel bed or fluvium. Mostly overland and seasonal flow with isolated scoured pools; some exposed cobbles.
BLFU_08_E	**Map 26**	11227	1	**126**	7-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_B	**Map 27**	9102	1	**127**	8-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_B	**Map 27**	9103	1	**128**	8-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_A	**Map 27**	180-374000-95200-79400-4360	3	**129**	8-Sep-08	**S6**	1.0	1.27	0.20	NA	9	NA	C	NS	NA	NA	NA	**No fish habitat** - shallow creek with bed filled by organic material, not preferable habitat for RB anyway, inaccessible to fish d/t lack of channel d/s in R2. (Carmanah 1999)
BLFU_08_A	**Map 27**	180-374000-95200-79400-4360	4,5,6	**130**	8-Sep-08	**NCD/S6/ NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** isolated drainage, stream sections alternate with seepages.

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Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
BLFU_08_A	**Map 27**	9100	1	**131**	8-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - isolated short channels within the valley, no continuity, no fluvium.
BLFU_08_A	**Map 27**	9101	1	**132**	8-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius
BLFU_08_A	**Map 27**	9001	1	**133**	8-Sep-08	**S6**	1.1	1.38	0.30	L	12	140	C	EF	NFC	142/300	300/80/6	**No salmonid habitat** - stream bed covered by thick detritus layer on the organic matter, frequent dense mats of aquatic vegetation, no spawning substrate. Banks trampled by ranging cattle, manure in stream.
BLFU_08_D	**Map 26**	180-374000-95200-71200-2441-3269	1	**134**	8-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** drainage through gully, lacks continuously scoured channel bed or fluvium.
BLFU_08_C	**Map 26**	180-374000-95200-71200-2990	5	**135**	9-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** flooded swale without continuously scoured channel bed or fluvium.
A82493-4	**Map 28**	180-374000-95200-41400-8240-6090	5	**163**	27-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through already logged area - no fluvium, scour or banks - not a stream.
A82493-4	**Map 28**	93402	1	**164**	27-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage with occasional muddy puddles at the edge of forest and logged block; no fluvium, banks or scour - not a stream. Drains into small wetland.
A82493-1	**Map 28**	93101	1	**165**	27-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage with no fluvium, banks or scour - not a stream; area trampled by ranging cattle, drains into the wetland adjacent to parent stream.
A82493-1	**Map 28**	Hawley C. / 180-374000-95200-41400-5280-5480	9.2	**166**	27-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - no continuous scoured channel bed, banks and fluvial deposits neither within wetland corridor or forested area; drainage alternately disperses in sparse fluvial deposits from isolated scour and re-appears.
A82493-1	**Map 28**	93104	2	**167**	27-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through gentle gully with occasional puddles - no fluvium or scour - not a stream.
A82493-1	**Map 28**	180-374000-95200-41400-8240-5549-179-133	5 & 6	**168**	27-Sep-08	**NCD**	*	*	*	L	7	290	C	NS	NA	NA	NA	**No fish habitat** - up to the wetland corridor drainage has ~30m long discontinuous and shallow scoured channel sections with some exposed angular cobbles. Within wetland corridor, there are wide mucky puddles with no visible channel - not a stream.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A82493-2	**Map 28**	180-374000-95200-41400-8240-5549-662	1 &2	**169**	27-Sep-08	**S6/ NCD**	1.1	4.33	0.16	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - tiny stream with only very limited rearing potential and no spawning or overwintering habitat. Drains to documented by FINS in 1997 non-fish bearing (NFB) stream. No isolated fish population present.
A82493-1	**Map 28**	180-374000-95200-41400-5280-2540	10	**170**	27-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through small gully; scour very sparse and isolated; signs of surface flow during snow melt - drains into wetland downstream.
A82493-1	**Map 28**	180-374000-95200-41400-5280-2540-812	1	**171**	27-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - mostly seepage through swampy or grassy corridor with some isolated sections of scour - not a stream.
A82491-1	**Map 29**	91102	1	**172**	29-Sep-08	**NCD**	*	*	*	L	7	NA	C	NS	NA	NA	NA	**No fish habitat** - seepage through the flat bottom gully (10-30m wide) with occasional small puddles with standing water.
A82491-2	**Map 29**	180-374000-95200-41400-4320-5160	4.1 & 4.2	**173**	29-Sep-08	**S6/ NCD**	0.9	1.00	0.15	NA	NA	NA	NA	NS	NA	NA	NA	**No salmonid habitat** - borderline stream/NCD; substrate composed of organic fines, flow very slow. Documented NFB through negative sampling results in 3 sites in 1997, 1998, and 1999 by FINS, RJA and BH respectively. Becomes NCD at UTM 10.324141.5971744 where valley becomes an inundated swamp without a visible channel.
A84450-1	**Map 31**	50102	1	**174**	29-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage/meltwater runoff with sections of connected wide puddles; no fluvial material observed or continuously scoured channel bed - not a stream.
A84450-1	**Map 31**	50101	3	**175**	29-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through ~10m wide swale with occasional surface flow and isolated puddles; no scoured channel bed or fluvium - not a stream.
A84450-2	**Map 30**	50203	2, 3	**176**	29-Sep-08	**NCD/S6**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through 20-30m wide area, sometimes barely noticable.
A84450-2	**Map 30**	50202	1	**177**	29-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through swale with some dried puddles and isolated scour.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84450-2	**Map 30**	50201	1	**178**	29-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius.
A84453	**Map 34**	45304	1	**179**	30-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through valley with isolated mud puddles.
A84453	**Map 34**	180-374000-95200-12500-8970	5	**181**	30-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through valley between two hills with isolated mud puddles.
A84453	**Map 34**	180-374000-95200-41400-2870-5840-336-487	4	**182**	30-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - mostly seepage upstream of small wetland with some discontinuous scoured channel bed - headwaters of stream.
A84453	**Map 34**	180-374000-95200-41400-2870-5840-336-487	2	**183**	30-Sep-08	**S6/ NCD**	12.0	0.73	0.22	L INT	8	5	C	NS	NA	NA	NA	**No fish habitat** - small and shallow seasonal stream, moderately steep with no instream cover during moderate or high flows. Flows into documented NFB stream (FINS 2000).
A84456	**Map 35**	45603	1	**184**	30-Sep-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m radius.
A84456	**Map 35**	45602	1	**185**	30-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage with isolated mud puddles.
A84456	**Map 35**	45601	1	**186**	30-Sep-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - steep drainage with discontinuous scoured channel bed and fluvial deposits through v-shaped gully.
A84458-2	**Map 34**	180-374000-95200-41400-2870-5840-309	6	**187**	1-Oct-08	**S6**	11.0	1.78	0.29	L	7	60	C	EF	NFC	439/420	600/80/6	**No fish habitat** - moderately steep stream with very little instream cover, channel prone to erosion within steeper (12-14%) gradient - channel ~0.6m wider than within 7% slope. Lacks spawning or overwintering habitat and contains v. limited rearing potential during low flows only. Drains to NFB stream confirmed this year.
A84458-2	**Map 34**	180-374000-95200-41400-2870-5840-309-900-508	2	**188**	1-Oct-08	**S6**	6.3	1.07	0.33	L	7	30	C	EF	NFC	487/420	700/80/6	**No fish habitat** - reach with overall good potential perennial habitat for RB however no isolated fish population found. Stream drains to NFB stream confirmed this year.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84458-2	**Map 34**	180-374000-95200-41400-2870-5840-309-900-508	2	**188X**	1-Oct-08	**S6**	3.3	1.07	0.33	L	7	30	C	EF	NFC	487/420	700/80/6	**No fish habitat** - reach with overall good potential perennial habitat for RB however no isolated fish population found. Stream drains to NFB stream confirmed this year.
A84458-1	**Map 34**	180-374000-95200-41400-2870-5840-309-900-508	4	**189**	1-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - small trickle with discontinuous sections of channel through narrow wetland.
A84458-1	**Map 33**	58101	1	**190**	1-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through gully with signs of water runoff; as gully becomes steeper scour is more frequent, but still discontinuous.
A84458-1	**Map 33**	83019	4	**191**	1-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through swale with some puddles - headwaters of drainage.
A84458-1	**Map 33**	58102	1	**192**	1-Oct-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m vicinity.
A84453	**Map 34**	180-374000-95200-41400-2870-5840-336	5	**193**	2-Oct-08	**S6**	2.4	1.43	0.47	L	8	110	C	NS	NFC	247/300	400/80/6	**No fish habitat -** small stream with only very limited rearing potential and no spawning or overwintering habitat; channel incised with frequently bridged banks. Drains to documented by FINS in 2000 NFB stream. No isolated fish population present.
A84453	**Map 34**	180-374000-95200-41400-2870-5840-336	5	**193X**	2-Oct-08	**S6**	2.4	1.43	0.47	L	8	110	C	NS	NFC	247/300	400/80/6	**No fish habitat -** small stream with only very limited rearing potential and no spawning or overwintering habitat; channel incised with frequently bridged banks. Drains to documented by FINS in 2000 NFB stream. No isolated fish population present.
A84458-2	**Map 34**	180-374000-95200-41400-2870-5840-309	4.2	**194AS**	2-Oct-08	**S6**	4.3	1.87	*	*	8	50	C	EF	NFC	454/450	600/80/6	**No fish habitat - second visit with NFC and NFC in R6 as well.** Stream originally sampled in 2000 by FINS with no fish capture. Apparently not utilized by RB, due to difficult passage through lower reaches where the lack of good instream cover was documented in the past. Access to this reach also limited by the presence of impassable at moderate and high flows small cascade/rock rubble at UTM 10.342352.5973002.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84454-3	**Map 33**	180-374000-95200-41400-2560	8 & 9	**195**	2-Oct-08	**S6/ NCD**	7.7	0.88	0.20	L	9	40	C	NS	NA	NA	NA	**No fish habitat** - borderline stream/NCD; few meters long sections of overland flows, bridged banks and 10-15m long sections of underground flow; stream very shallow with abundance of organic fines - not suitable habitat for RB at any time of year.
A84454-3	**Map 33**	54302	1	**196**	2-Oct-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m vicinity.
A84454-3	**Map 33**	54303	1	**197**	2-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through swale with some puddles; no scour, fluvium or channel - not a stream.
A84454-1	**Map 33**	180-374000-95200-41400-2560-5360-789-279	1	**199**	3-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seepage through swampy area with some puddles.
A84454-4	**Map 33**	180-374000-95200-41400-2560-5360-789	2 &3	**200**	3-Oct-08	**S6/ NCD**	8.0	0.73	0.18	L	7	30	L	NS	NA	NA	NA	**No fish habitat** - moderately steep, tiny, shallow and seasonal stream. Does not provide any viable fish habitat, substrate angular, no pools, deeply incised channel with some bridged banks. Becomes a seepage in R1 (FINS 2000). Becomes NCD at UTM 10.340721.5976450 - no more scoured channel and fluvium; mostly seepage.
A84454-4	**Map 33**	180-374000-95200-41400-2560-5360-796	2	**201**	3-Oct-08	**S6**	10.8	1.02	0.24	L	8	50	L	NS	NA	NA	NA	**No fish habitat -** tiny, shallow and moderately steep stream with almost no instream cover at current low flows and no instream cover during moderate to high flows.
A84454-4	**Map 33**	54403	1	**202**	3-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - seasonal water runoff with discontinuous scoured channel bed and fluvial deposits through v-shaped gully.
A84454-4	**Map 33**	83019	1	**203**	3-Oct-08	**S6**	6.7	1.03	0.22	L	8	90	L	NS	NA	NA	NA	**No fish habitat** - moderately steep, tiny, and shallow stream. Very poor instream cover during moderate and high flows, substrate angular, pools short, shallow and sparse - too shallow to provide meaningful habitat at low flows. Stream completely dewaters at UTM 10.339921.5974724. Inaccessible to fish - visited by FINS in 2000 with NFC.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84452-2	**Map 32**	133	3	**204**	4-Oct-08	**S6**	16.5	1.50	0.24	L	7	40	C	NS	NA	NA	NA	**No fish habitat** - steep and shallow stream with no perennial habitat; flows into documented NFB sytem. Stream completely disappears at the base of hill at UTM 10.344892.5981361. Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.
A84452-2	**Map 32**	52205	1	**204A**	5-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** mixture of surface flow, short channelized sections and sub-surface percolation from swampy area - not a stream. Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.
A84452-2	**Map 32**	52204	1	**205**	4-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** ~30m wide boggy depression, which collects water from surrounding area, seeps underground to parent stream (ILP 133). Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.
A84452-2	**Map 32**	133	1	**206**	4-Oct-08	**S6**	5.1	1.37	0.40	L	7	40	C	NS	NA	NA	NA	**No fish habitat** - stream with potential rearing habitat but flows into documented NFB sytem. Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.
A84452-1	**Map 32**	52102	1	**207**	4-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - swampy valley with standing water in elongated and isolated puddles; no scoured channel bed and fluvium - not a stream. Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84452-1	**Map 32**	180-37400-95200-39900-6900	2.2	**208**	4-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - ~100m long X 30m wide area in the vicinity of NW corner of the proposed block which is seasonally inundated by dispersing water from the stream. No continuously scoured channel observed, fluvial deposits patchy, water from the stream completely disperses in the forest. Occasional excess of water enters the road ditch. No drainage identified on the north side of road. Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.
A84452-1	**Map 32**	180-37400-95200-39900-6900	3	**209**	4-Oct-08	**S5**	2.5	3.33	0.58	L	7	5	C	NS	NA	NA	NA	**No fish habitat** - stream extensively sampled in the past by SKR (5 sites in 1996) with NFC. No isolated fish population present. Stream completely disappears at the base of hill at the site location and is isolated from any waterbody. Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.
A84451-2	**Map 32**	51203	1	**210**	4-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - swampy depression with isolated puddles; no scoured channel bed and fluvium - not a stream. Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.
A84451-2	**Map 32**	51201	2	**211**	4-Oct-08	**S6**	5.1	1.35	0.35	L	8	60	C	NS	NA	NA	NA	**No fish habitat** - stream with potential perennial habitat but flows into documented NFB sytem. Entire watershed of stream 180-374000-95200-39900 is established non-fish bearing u/s of 4m falls barrier in R1.1 through numerous sampling conducted by SKR, FINS, Ecofor and HC since 1996.
A84451-2	**Map 32**	51202	1	**212**	4-Oct-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present @ mapped location or 100m vicinity.

Table 6: Summary of data of non-fish bearing drainages in Burns Lake Area.

Area/ Crossing	Project Map	(BCTS Stream Id) or ILP/WSC	Reach #	Site #	Date	Riparian Class	Grad (%)	Avg CW (m)	Avg. Wb (m)	Stage (flow)	Water Temp (°C)	Cond. (µS/cm)	Turbidity	Method	Sampling Results	Effort (EF - sec/dist, MT traps/hours)	EF Specs (V/Hz/µs)	Comments
A84450-3	**Map 30**	50304	2	**213**	5-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** swampy depression, which collects water from surrounding area - not a stream.
A84450-3	**Map 30**	93501	2	**214**	5-Oct-08	**S6**	15.8	1.62	0.26	L	6	40	C	NS	NA	NA	NA	**No fish habitat -** steep, shallow and fast flowing stream with very poor instream cover; likely seasonal flows, some braiding and highly movable substrate.
A84450-3	**Map 30**	50304	1	**215**	5-Oct-08	**NCD**				NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** swale/shallow gully with sparse signs of seasonal surface flows - barely a seepage.
A84450-3	**Map 30**	50302	1	**216**	5-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** small gully with sparse signs of seasonal surface flows - barely a seepage.
A84450-3	**Map 30**	50305	1, 2, 3 & 4	**217**	5-Oct-08	**S6/ NCD**	6.8	0.83	0.18	M	6	30	L	NS	NA	NA	NA	**No fish habitat -** seasonal and extremaly shallow stream with no habitat to offer at any time of year; disperses ~40m downstream from site location.
A84450-3	**Map 30**	50306	1	**218**	5-Oct-08	**NA**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat -** no drainage present at mapped location or 100m vicinity.
BLFU_08_K	**Map 23**	11306	1	**230**	20-Oct-08	**S6**	7.0	0.82	0.29	L INT	1	NA	C	NS	NA	NA	NA	**No fish habitat** - small and isolated stream with no perennial habitat and inaccessible to fish from Tchesinkut C., dissipates in small wetland.
BLFU_08_K	**Map 23**	11307	1	**231**	20-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - tiny and isolated drainage with scoured channel and fluvium for only 90m on slop with 8-11% gradient, becomes a seepage in small depression. Not a stream as per definition.
BLFU_08_BL	**Map 21**	40109	1	**232**	20-Oct-08	**NCD**	*	*	*	NA	NA	NA	NA	NS	NA	NA	NA	**No fish habitat** - isolated seepage between two bogs, no scour, fluvium or channel; isolated mucky puddles through swale, than through gully in lower half - not a stream as per definition.

6.3.3 Additional Sampling

Table 7: Streams requiring additional sampling in Burns Lake Area .

Area	Map	Stream ID/WSC	Present Site #	Sampling Location	Timing	Expected species	Method	Objective
BLFU_08_G	**Map 25**	180-374000-95200-62100-5224	**110**	Reach 1	June	RB	EF	To determine fish access and use.
BLFU_08_G	**Map 25**	180-374000-95200-62100-5224	**111**	Reach 2	June	RB	EF	To determine fish access and use.
A84453	**Map 34**	180-374000-95200-12500-8970	**180**	Reach 1, 2, 3	June	RB	EF/MT	To determine fish access and use. Large wetland in R1 may impede fish access.

7. List of Abbreviations

Avg	Average	L	Low flow or lightly turbid
BCTS	British Columbia Timber Sales	L.	Lake
BH	Beacon Hill Consultants Ltd.	LKC	Lake chub (*Couesius plumbeus*)
BIOTICA	Biotica Consulting Ltd.	LSU	Longnose sucker (*Catostomus catostomus*)
BMC	Brassy minnow (*Hybognathus hankinsoni*)	m	Meter
C	Clear (not turbid)	M	Moderate flow or moderate turbid
C.	Creek	min	Minutes
Carmanah	Carmanah Research Ltd.	mm	Millimeter
Cm	Centimeter	MG	Marginal (habitat value rating)
CO	Coho salmon (*Oncorhynchus kisutch*)	MT	Minnow trap
Confl.	Confluence	N	No
CR	Critical (habitat value rating)	NA	Not applicable
CSU	Coarsescale sucker (*Catostomus macrocheilus*)	NCD	Not classified drainage
CT	Cutthroat trout (*O. clarki*)	ND	No drainage present
CW	Channel width	NFC	No fish captured
DBA	David Bustard and Associates Ltd.	NS	Not sampled
DFO	Department of Fisheries and Oceans	NTS	National Topographic Survey
DN	Dip net	NVC	No visible channel
d/s	Downstream	PL	Pacific lamprey (*Lampetra tridentate*)
DV	Dolly Varden char (*Salvelinus malma*)	R.	River
Ecofor	Ecofor Consulting Ltd.	Rd	Road
EF	Electrofishing	Rip.	Riparian
EFU	End of Fish Use	RIC	Resource Information Committee
FB	Fish-bearing	RJA	RJA Forestry Ltd.
FINS	FINS Consulting Ltd.	RSC	Redside shiner (*Richardsonius balteatus*)
FISS	Fisheries Information Summary System	sec	Seconds
FPC	Forest Practices Code	Silvicon	Silvicon Forestry Consultants Ltd.
FSID	Fish-stream Identification Guidebook	SKR	SKR Consultants Ltd.
FSR	Forest Service Road	S1 - S6	Riparian classes (streams)
FSZ	Fisheries Sensitive Zone	T	Turbid
GF	Ground flow	Temp	Temperature
Grad	Slope gradient	TRIM	Terrain Resource Information Management
GPS	Global Positioning System	Triton	Triton Environmental Consultants Ltd.
h	Hours	UND	Undetermined
H	High flow	u/s	Upstream
HC	Hatfield Consulting Ltd.	UTM	Universal Transverse Mercator coordinates
Hz	Hertz	V	Volt
HIST	Historic	Wb	Bankfull depth
ID	Identifier	WCB	Workers Compensation Board
ILP	Interim Locatinal Point (Stream ID)	WSC	Watershed code
IM	Important (habitat value rating)	X-ing	Crossing
infer	Inferred	Y	Yes
INT	Intermittent	µsec	Microseconds
IS	Incidental sampling	µS	Microsiemens
JDJB	J. DeGisi, J. Burrows	°C	Temperature
km	Kilometer	%	Slope gradient

8. Bibliography

Province of British Columbia. 1995. Riparian Management Area Guidebook. Forest Practices Code Guidebook. B.C. Min. For., Victoria, B.C.

Province of British Columbia. 1996. Channel Assessment Procedure Guidebook. Forest Practices Code Guidebook. B.C. Min. For., Victoria, B.C.

Province of British Columbia. 1997. Fish Collection Methods and Standards. Version 4.0. RIC January 1997 and Errata #1 RIC (March 1999). B.C. Min. Fisheries. Fisheries Inventory Section. Victoria, B.C.

Province of British Columbia. 1997. Fisheries Information Summary System (FISS): Data Compilation and Mapping Procedures. Federal/ Provincial Fish Habitat Inventory and Information Program. Draft 3 October 1997. B.C. Min. Fisheries. Fisheries Inventory Section. Victoria, B.C.

Province of British Columbia. 1998. Fish-stream Identification Guidebook Second Edition. Forest Practices Code Guidebook. B.C. Min. For., Victoria, B.C.

Province of British Columbia. 1999. Guidelines for Local Area Agreement Preparation: Skeena Region. Draft Version 2 - June 1999.

Province of British Columbia. 1999. Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Site Card Field Guide. Version 1.0. RIC March 1999 and Errata RIC (March 2000). B.C. Min. Fisheries. Fisheries Inventory Section. Victoria, B.C.

Province of British Columbia. 1999. Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Fish Collection Form Field Guide. Version 1.0. RIC March 1999 and Errata RIC (March 2000). B.C. Min. Fisheries. Fisheries Inventory Section. Victoria, B.C.

Province of British Columbia. 2000. Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Reach Information Guide. Version 1.0. RIC March 2000. B.C. Min. Fisheries.

Fisheries Inventory Section. Victoria, B.C. Province of British Columbia. 2001. Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures. Version 2.0. RIC April

2001. B.C. Min. Fisheries. Fisheries Inventory Section. Victoria, B.C. Province of British Columbia. 2001. Standards for Fish and Fish Habitat Maps. Version 3.0. RIC April

2001.B.C. Min. Fisheries. Fisheries Inventory Section. Victoria, B.C. Province of British Columbia. 2001. Users Guide to British Columbia's Watershed/ Waterbody Identifier System. Version 2.2. RIC March 2001. B.C. Min. Fisheries. Fisheries Inventory Section. Victoria, B.C.

Fisheries Information Summary System (FISS). Ministry of Sustainable Resource Management – Fisheries Inventory Data Queries Website. http://srmapps.gov.bc.ca/apps/fidq

British Columbia Conservation Foundation. 1997. Mid-Bulkley Overview Fish and Fish Habitat Assessment for Watershed Restoration. Resource Information Branch, Victoria, BC.

Beacon Hill Consultants Ltd. 1999. Fish Stream Identification and Stream Riparian Classification for Takysie Lake - Unknown Lake Area (Follow-Up). Prepared for MOF by Beacon Hill Consultants Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

Beacon Hill Consultants Ltd. 1999. Fish Stream Identification and Stream Riparian Classification for Tchesinkut Lake Area (West) Follow Up Sampling 1999. Prepared for MOF by Beacon Hill Consultants Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

Beacon Hill Consultants Ltd. 1999. Fish Stream Identification and Stream Riparian Classification for Uncha L Area - Follow Up Sampling 1999. Prepared for MOF by Beacon Hill Consultants Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

Beacon Hill Consultants Ltd. 1999. Fish Stream Identification and Stream Riparian Classification for Bulkley L Area - Follow Up Sampling 1999. Prepared for MOF by Beacon Hill Consultants Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

David Bustard and Associates Ltd. 1997. Stream Inventory - Tagit Creek and Adjacent Tributaries 1997. Watershed Code: 460-600600-44500. Prepared for Houston Forest Products Ltd. B.C. Ministry of Fisheries, Victoria, B.C.

Biotica Consulting Ltd. 1999. Fish Passage - Culvert Inspection And Fish Inventory For The Burns L West Landscape Unit. Prepared for MOF by Beacon Hill Consultants Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

Carmanah Research Ltd. 2000. Fish Stream Identification and Riparian Classification of a Tributaries to Francois Lake. B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

DeGisi, J.S., and Burrows, J. 1996. Reconnaissance Survey Of Anders Lake (WSC 180-3740-952-665230-01). Prepared for BC Min. Environ., Lands and Parks, Fisheries Branch, Skeena Region, Smithers, B.C.

Ecofor Consulting Ltd. 2002. Fish Passage - Culvert Inspection For Selected Stream Crossings Within The Lakes Forest District. Ministry of Forest, Lakes District, Burns Lake, B.C.

Ecofor Consulting Ltd. 2002. Reconnaissance (1:20,000) Fish And Fish Habitat Inventory Of Selected Sites Within The Lakes Forest District. Ministry of Forest, Lakes District, Burns Lake, B.C.

FINS Consulting Ltd. 1998. Reconnaissance (1:20,000) Fish And Fish Habitat Inventory In The Francois Watershed - Uncha Creek (WSC 180-374000-95200-41400). Prepared for Babine Forest Products Co. by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BC Min. Environ., Lands and Parks, Fisheries Branch, Skeena Region.

FINS Consulting Ltd. 1998. Reconnaissance (1:20,000) Fish And Fish Habitat Inventory In The Francois Watershed – Small Drainages within Within The Francois Watershed (WSC 180-374000-95200-*****). Prepared for Babine Forest Products Co. by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BC Min. Environ., Lands and Parks, Fisheries Branch, Skeena Region.

FINS Consulting Ltd. 1999. Reconnaissance (1:20,000) Fish And Fish Habitat Inventory: Subdrainages In The Nechako River Watershed (WSC 180-******). Prepared for Babine Forest Products Co. by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BC Min. Environ., Lands and Parks, Fisheries Branch, Skeena Region.

FINS Consulting Ltd. 2000. Operational Stream Inventories For FL A-16825 And A-16823. Prepared for Babine Forest Products Co. by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BC Min. Environ., Lands and Parks, Fisheries Branch, Skeena Region.

FINS Consulting Ltd. 2001. Operational Stream Inventories For FL A-16823. Prepared for Babine Forest Products Co. by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BC Min. Environ., Lands and Parks, Fisheries Branch, Skeena Region.

FINS Consulting Ltd. 2001. Reconnaissance (1:20,000) Fish And Fish Habitat Inventory: Tributaries In The Bulkley River Watershed – General Watershed Code: 460-******. Prepared for Babine Forest Products Co. by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BC Min. Environ., Lands and Parks, Fisheries Branch, Skeena Region.

FINS Consulting Ltd. 2001. Reconnaissance (1:20,000) Fish And Fish Habitat Inventory: Tributaries In The Francois Lake Watershed – General Watershed Code: 180-374000-95200-*****. Prepared for Babine Forest Products Co. by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BC Min. Environ., Lands and Parks, Fisheries Branch, Skeena Region.

FINS Consulting Ltd. 2005. Stream Assessment For The Select Areas And Road Crossings Within Nadina Forest District. Prepared for BCTS Babine Business Area by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BCTS Office in Burns Lake, B.C.

FINS Consulting Ltd. 2006. 2005 Stream Assessment for select Areas and Road Crossings within Nadina Forest District. Prepared for BCTS Babine Business Area by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BCTS Office in Burns Lake, B.C.

FINS Consulting Ltd. 2007. 2006 Stream Assessment for select Areas and Road Crossings within Nadina Forest District. Prepared for BCTS Babine Business Area by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BCTS Office in Burns Lake, B.C.

FINS Consulting Ltd. 2008. 2007 Stream Assessment for select Areas and Road Crossings within Nadina Forest District. Prepared for BCTS Babine Business Area by FINS Consulting Ltd., Terrace, B.C. Unpublished report submitted to BCTS Office in Burns Lake, B.C.

Hatfield Consultants Ltd. 1997. Secondary Lake Inventory 1997 Studies - Unnamed Lake (180-374000-95200-39900-01) 01795FRAN. Prepared for MELP Skeena Region. B.C. Fisheries, Victoria, B.C.

McCuen, R.H., 1989. Hydrologic Analysis and Design. Prentice Hall, Englewood Cliffs, NJ, 867 pp.

Parker, M.A., 2000. Fish Passage – Culvert Inspection Procedures. B.C. Min. Environ., Lands and Parks, Williams Lake, B.C. Watershed Restoration Tech. Circ. 11.

SKR Consultants Ltd. 1996. Fish Stream Identification: Lakes Forest District Small Business Forest Enterprise Program 1996. Ministry of Forest, Lakes District, Burns Lake, B.C.

SKR Consultants Ltd. 1996. Fish Stream Identification: Lakes Forest District Small Business Forest Enterprise Program 1996 Re-Sampling Project. Ministry of Forest, Lakes District, Burns Lake, B.C.

RJA Forestry Ltd. 1997. Fish And Fish Habitat Inventory For Forest Licences A-16823 And A-16825: Endako Area. Prepared for Babine Forest Products Co. by R.J.A. Forestry Ltd., Terrace, B.C. B.C. Min. of Environment, Smithers, B.C.

RJA Forestry Ltd. 1998. Fish Stream Identification And Riparian Classification Of Tchesinkut Lake Area (West). Prepared for MOF by R.J.A. Forestry Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

RJA Forestry Ltd. 1998. Fish Stream Identification And Riparian Classification Off Of Takysie Lake And Unknown Lake Area. Prepared for Ministry of Forest by R.J.A. Forestry Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

RJA Forestry Ltd. 1998. Fish Stream Identification And Riparian Classification Of Uncha Lake Area. Prepared for MOF by R.J.A. Forestry Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

RJA Forestry Ltd. 1998. Fish Stream Identification And Riparian Classification Of Bulkley Lake Area. Prepared for MOF by R.J.A. Forestry Ltd., Terrace, B.C. Ministry of Forest, Lakes District, Burns Lake, B.C.

Rosberg, G.E. 1975. Francois Lake Watershed Stream Inventory. Prepared for MoE Fish and Wildlife Branch, Prince George, B.C.

Silvicon Forestry Consultants Ltd. 2001. Spur A58449 Torkelson Chart Area 1:5000 Operational Stream Inventory. Prepared for Ministry of Forests. Smithers, B.C.

Triton Environmental Consultants Ltd. 1998. Reconnaisance Level Fish And Fish Habitat Inventory In The Bulkley T.S.A. (Working Unit #2 - Babine). Prepared For Pacific Inland Resources Ltd. Smithers, B.C. Ministry of Fisheries, Victoria, B.C.

Triton Environmental Consultants Ltd. 1998. Reconnaisance Level Fish And Fish Habitat Inventory In The Bulkley T.S.A. (Working Unit #5 - Tsezakwa). Prepared For Pacific Inland Resources Ltd. Smithers, B.C. Ministry of Fisheries, Victoria, B.C.

Triton Environmental Consultants Ltd. 1998. Reconnaisance Level Fish And Fish Habitat Inventory In The Bulkley T.S.A. (Working Unit #6 - Harold Price and Selected Tribs in Bulkley River Watershed). Prepared For Pacific Inland Resources Ltd. Smithers, B.C. Ministry of Fisheries, Victoria, B.C.

Triton Environmental Consultants Ltd. 1998. Reconnaisance Level Fish And Fish Habitat Inventory In The Bulkley T.S.A. (Working Unit #11 - Zymoetz). Prepared For Pacific Inland Resources Ltd. Smithers, B.C. Ministry of Fisheries, Victoria, B.C.

Triton Environmental Consultants Ltd. 1998. Reconnaisance Level Fish And Fish Habitat Inventory In The Bulkley T.S.A. (Working Unit #12 - Coffin). Prepared For Pacific Inland Resources Ltd. Smithers, B.C. Ministry of Fisheries, Victoria, B.C.

Triton Environmental Consultants Ltd. 2001. Reconnaissance (1:20,000 Scale) Fish And Fish Habitat Inventory Of Unnamed Tributaries To Babine Lake (Smithers Landing Planning Area) WSC 480-Babine Lake. Prepared For Canadian Forest Products Ltd. Houston, B.C. Ministry of Fisheries, Victoria, B.C.

9. List of Appendices

Appendix I: **Field Cards Copies**

Appendix II: **Photographs**

Appendix III: **Hardcopy Maps**

Appendix IV: **Addendum – Memo: Road 424 Crossing Assessment @ Stn = 1+440m (UTM 9.651709.6112821) of Tsak Creek.**

Appendix I: Field Cards Copies

SITE CARD

STREAM NAME (gaz.) (local) McDONNELL-KING
WATERSHED CODE 4|4|0|7|4|1|1|0|0|1|1|2|0|0
ILP MAP # ILP # 93201 NID MAP # NID #
REACH # 4 D SITE # 3 FIELD UTM 9 582115 6075375 GPS SITE LG 500 0 ACCESS V L
DATE 2008|07|14 TIME 1915 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m) T 1.8 2.2 1.8 2.0 1.9 1.7
WETTED WIDTH (m) T 1.3 1.4 1.7 1.0 1.1 1.5
RES. POOL DEPTH (m) M 0.9 0.7 1.0 1.3
W_b Dp (m) 0.3 0.4 0.2 0.4 1.5 STAGE D M H
No Vis. Ch. DW Dry/Int. Tribs.

GRADIENT % AL 2 3 2 3

WATER
EMS REG. #
TEMP 9 C 13 COND. 80 S/cm
pH TURB. T M L D
FLD SNS N
BED MATERIAL Dominant G Subdom. C
D95 (cm) 40 D (cm) 5 Morph. RP

COVER
Total 4
Type SWD LWD B U DP OV IV
AMT T S S T S T N
LOC T S S T S T N
CROWN CLOSURE 0 1 2 3 4 5
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: recvisitation, abandn ch, erdbk, dead, SWD, LWD, jam; mult ch, dis brw, horn bd, finger, lg wdg, ex bar, ex bd scr; O1 B1 B2 B3 D1 D2 D3; ex ol, no pl, elev br; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			BD	1.2 12.5	GPS	RD16 F926	Temp barrier	9 581552 6075376 GPS
			CV	0.3 32	HC	RD16 F928	Barrier - 2% slope, no	9 580989 6074792 GPS
						R__ F__	jump pool - drops on	
						R__ F__	rocks - 0.3 m	

(1)

HABITAT QUALITY
R - M - G - pools not abundant every 20-30 m, mostly riffle with some GBS & B
S - G - abundant gravel patches throughout, good flow sufficient holding
O - improve stp shelter
Access impacted by BD, DV present d/s.

PHOTO DOCUMENTATION FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	926	M	D	DV photo
	928	ST	U	CV @ McDonnell xing
	929	ST	U	BD photo
	930	ST	U	person for scale
	931	ST	U	— 1 —

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C CWDs = 1.8; 1.9; 2.2; 2.1; 1.9; 1.9 C — CV is a barrier to
WBDs = 0.3; 0.3; 0.3; 0.35; 0.4; 0.4 fish — DV captured
% = 2, 3 immediately d/s, No
CWUs = 2.0; 1.9; 1.9; 1.7; 1.7; 2.1
WBUs = 0.35; 0; 0.45; 0.3; 0.4, 0.45
% = 2, 3
Xing UTM 9, 582401, 6075438
CV - UTM, 9, 580989, 6074792 →

(2)

COMBINED FISH COLLECTION

GAZETTED NAME (local) McDonnell Xing ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 4|4|0|7|4|1|1|0|0|1|1|2|0|0
WATERBODY ID ILP MAP # ILP # 93201 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 2 3 4 FISH PERMIT # SM08-45742
DATE 2008|07|14 to AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
1			9 581000 6074664 GPS	EF 1	9	80	C	
2			9 581086 6074716 GPS	EF 1	9	80	C	
3			9 582115 6075375 GPS	EF 1	9	80	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
1	EF 1	1	DV	J		1	63	63	R	
2	↓	↓	DV	J		1	85	85	R	
3	↓	↓	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(3)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	3	EF 1	1	1915	1935	524	200	1.0	0	400	80	6	SR	12B
2	1A	↓	1	1720	1720	92	10	1.0	0	↓	↓	↓	↓	↓
3	2A	↓	1	1725	1730	89	50	1.0	0	↓	↓	↓	↓	↓

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
2	1A	EF 1	1	DV	63											R__ F__
3	2A	EF 1	1	DV	85											R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

1 d/s of WBXing
2 d/s of long CV
3 s/s of CV

(4)

SITE CARD

STREAM NAME (gaz.) (local) Stream AA2
WATERSHED CODE 4|8|0|5|3|1|0|0|0
ILP MAP # ILP # NID MAP # NID #
REACH # 2 D SITE # 4 FIELD UTM 9 656702 6101795 GPS SITE LG 100 0 ACCESS FT
DATE 2008|07|15 TIME 1015 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m) T 4.1 3.8 4.5 5.0 3.4 3.1
WETTED WIDTH (m) T 2.9 3.1 2.7 3.3 3.4 3.1
RES. POOL DEPTH (m) M 0.2 0.2 0.4
W_b Dp (m) 1.5 0.4 0.6 GPS STAGE D M H
No Vis. Ch. DW Dry/Int. Tribs.

GRADIENT % AL 2 3 3 1

WATER
EMS REG. #
TEMP 12 C 13 COND. 140 S/cm
pH TURB. T M L D
FLD SNS N
BED MATERIAL Dominant G Subdom. C
D95 (cm) 35 D (cm) 10 Morph. RP

COVER
Total 4
Type SWD LWD B U DP OV IV
AMT S T S N T D S
LOC P P P P P P
CROWN CLOSURE 0 1 2 3 4 5
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: recvisitation, abandn ch, erdbk, dead, SWD, LWD, jam; mult ch, dis brw, horn bd, finger, lg wdg, ex bar, ex bd scr; O1 B1 B2 B3 D1 D2 D3; ex ol, no pl, elev br; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N U I F S AN
BARS SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(5)

HABITAT QUALITY
R - good for CO, RB, abundant SWD some logs & UC.
S - fair - CO/RB fry present, gravel patches present
O - None → too shallow for fish likely moves to Beaver pond d/s

PHOTO DOCUMENTATION FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	935	M	D	RB photo
DIG	936	M	D	Salmonid fry photo
	937	ST	U	person
↓	938	ST	D	— 1 —

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C Xing Δ = 1401
UTM. 656691, 6101750

53

(6)

COMBINED FISH COLLECTION

GAZETTED NAME (local) Str AA2 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 4|8|0|5|3|1|0|0|0
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 2 FISH PERMIT # SM08-45742
DATE 2008|07|15 to AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
4			9 656702 6101795 GPS	EF 1	12	140	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
4	EF 1	1	CO	J	1+	1	71	71	R	
4	EF 1	1	RB	J		11	55	107	R	
4	EF 1	1	RB/CO	F		2	29	31	R	

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(7)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	4	EF 1	1			734	40	3	0	400	80	4	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
	4	EF 1	1	CO	71											R__ F__
				RB/CO	29											R__ F__
				RB/CO	31											R__ F__
				RB	68											R__ F__
				RB	55											R__ F__
				RB	92											R__ F__
				RB	69											R__ F__
				RB	65											R__ F__
				RB	68											R__ F__
				RB	93											R__ F__
				RB	107											R__ F__
				RB	58											R__ F__

RB, 94, 75

(8)

COMBINED FISH COLLECTION

GAZETTED NAME: Block 82786-2 (local): AA-R1 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE: 480531000 52500
WATERBODY ID: ILP MAP #: ILP #: SITE/LAKE CARD ATTACHED ☐ Y ☒ N
PROJECT ID: REACH #: 2 FISH PERMIT #: SM08-45742
DATE: 20080710 15 to: AGENCY: COIG CREW: MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
5			9 655794 6101286 GP3	EF1	10	110	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
5	EF1	1	RB	J		1	108	108	R	

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(9)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
5	EF1	1	1215	1230	23	50	1	0	400	60	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
5	EF1	1	RB	108												RDG 940

Resampling site - RB captured → pic 940
208
CW = 1.45, 1.58, 1.39, 1.48, 1.61, 1.43 → S4

(10)

COMBINED FISH COLLECTION

GAZETTED NAME: Resampled site #10 (local): ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE: 480531000
WATERBODY ID: ILP MAP #: ILP #: SITE/LAKE CARD ATTACHED ☐ Y ☒ N
PROJECT ID: REACH #: 4 FISH PERMIT #: SM08-45742
DATE: 20080711 to: AGENCY: COIG CREW: MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
6			9 656814 6101199 GP3	EF1	14	180	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
6	1	1	RB	J		1	122	122	R	

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(11)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
6	EF1	1	1355	1356	17	5	4	0	300	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
6	EF1	1	RB	122												RDG 941

Resampling site → RB captured → pic 941

(12)

SITE CARD

STREAM NAME (gaz.): BLK A82788-1 / SFU-2008_T2 (local): A-A4
WATERSHED CODE:
ILP MAP #: ILP #: 7883 NID MAP #: NID #:
REACH #: 4 D SITE #: 7 FIELD UTM: 9 657538 6100460 GP3 SITE LG: 300 ☐ ACCESS: FT
DATE: 2008 07 14 TIME: 1430 AGENCY: COIG CREW: MJ, DJ FISH FORM: Y (N)

WATER

CHANNEL mthd	GRADIENT %	EMS	REQ. #
CHANNEL WIDTH (m)		TEMP C	COND. S/cm
WETTED WIDTH (m)		pH	TURB. T M L C
RES. POOL DEPTH (m)		FLD SNS	
W_b Dp (m)	STAGE L M H (No Vis. Ch.) DW (Dry/Int.) Tribs.	BED MATERIAL Dominant	Subdom.
		D95 (cm)	D (cm) Morph.

COVER

COVER Total	Type	SWD	LWD	B	U	DP	OV	IV
	AMT							
	LOC							

CROWN CLOSURE: 0 1 2 3 4 5

LWD FNC: N F A DIST: C E
LB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA

INSTREAM VEG: N A M V
RB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(13)

HABITAT QUALITY

NFH - stream fans out and completely disappears no connection to nearby u/s riparian @ start of reach

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C	
	Re-sampling site Completed FSB barrier from last year
	S6

(14)

SITE CARD

STREAM NAME (gaz.): BLK A82788-1 / SFU-2008_T1 (local): stream AA-R1
WATERSHED CODE: 480531000
ILP MAP #: ILP #: NID MAP #: NID #:
REACH #: 7 D SITE #: 8 FIELD UTM: 9 657773 6100557 GP3 SITE LG: 200 ☐ ACCESS: FT
DATE: 2008 07 14 TIME: 1610 AGENCY: COIG CREW: MJ, DJ FISH FORM: Y (N)

WATER

CHANNEL mthd	GRADIENT %	EMS	REQ. #
CHANNEL WIDTH (m)		TEMP 9 C T3	COND. 110 S/cm S4
WETTED WIDTH (m)		pH	TURB. I M L (H) S4
RES. POOL DEPTH (m)		FLD SNS	
W_b Dp (m)	STAGE L M H (No Vis. Ch.) DW (Dry/Int.) Tribs.	BED MATERIAL Dominant	Subdom.
		D95 (cm)	D (cm) Morph.

COVER

COVER Total	Type	SWD	LWD	B	U	DP	OV	IV
	AMT							
	LOC							

CROWN CLOSURE: 0 1 2 3 4 5

LWD FNC: N F A DIST: C E
LB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M (W)
STAGE: INIT SHR PS YF MF NA

INSTREAM VEG: N A M V
RB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M (W)
STAGE: INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(15)

HABITAT QUALITY

NFH - lower 100 m of reach disperses in swamp, many isolated or semi-isolated muskeg channels with indiscernible flow. No access to RB from u/s reaches.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos - too dense cover

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C	C
drainage flows not as mapped on Trim in lower section of reach - GPS'd	
topped u/s of W	NOD / S6

(16)

FISH COLLECTION FORM

GAZETTED NAME: (local) Str AA-R1 A82788-7 LAKE / **STREAM** (circled) / WETLAND
WATERSHED CODE: 480531 000
WATERBODY ID: ILP MAP #: ILP #: SITE/LAKE CARD ATTACHED: Y (circled) N
PROJECT ID: REACH #: 7 D FISH PERMIT #: SM08-45742
DATE: 2008 07 14 to AGENCY: C016 CREW: MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD	MTD / NO.	TEMP	CON	TURB.	COMMENTS
8			9 657773 6100557	EF	EF 1	9	110	G	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
8	EF 1	1	NFC			0				

(17)

NET / TRAP SPECIFICATIONS — GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
8	EF 1	1	1600	1610	187	150	1.0	0	400	80	6	SR	12B

COMMENTS

Good CB cover but lots of fines, channel incised
perceived out in W d/s

(18)

COMBINED FISH COLLECTION

GAZETTED NAME: (local) A82786-1 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE: 480531 900 5800
WATERBODY ID: ILP MAP #: ILP #: SITE/LAKE CARD ATTACHED: ☐ Y ☒ N
PROJECT ID: REACH #: 3 FISH PERMIT #: SM08-45742
DATE: 2008 07 15 to AGENCY: C016 CREW: MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	TEMP	CON	TURB.	COMMENTS
9			9 653527 6102724 GP3	EF 1	9	80	C	Resampling

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
9	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS — GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(19)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	9	EF 1	1	1000	1040	199	500	0.7	0	500	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

ph 942 – start of dewatering.
NFH – no suitable RB hab, flows seasonally for few weeks @ beginning of summer. Resampled from last year → S6

(20)

SITE CARD

STREAM NAME (gaz.): Blk A82783-1 (local)
WATERSHED CODE: 480525800 4 1848
ILP MAP #: ILP #: 78311 NID MAP #: NID #:
REACH #: 3 D SITE #: 901 FIELD UTM: 9 652044 6104878 GP3 SITE LG: 500 0 ACCESS: FT
DATE: 2008 07 15 TIME: 1400 AGENCY: C016 CREW: MJ DJ FISH FORM: Y (circled) N

CHANNEL

	mthd							GRADIENT %	
CHANNEL WIDTH (m)	T	1.5	1.6	1.5	1.7	1.4	1.4	AL	
WETTED WIDTH (m)	T	1.2	1.0	1.5	1.3	1.2	1.1	2	2
RES. POOL DEPTH (m)	MS	0.33	0.25					0.5	0.5

W_b Dp (m): 0.28 0.31 MS STAGE: L (circled) M H — No Vis. Ch. DW — Dry/Int. Tribs.

WATER

EMS: REQ. #:
TEMP: 16 C T3 COND.: 110 S/cm 34
pH: TURB.: T M L C (circled) 6E

MORPHOLOGY

FLD SNS: N
BED MATERIAL Dominant: F Subdom.: G
D95 (cm): 6 D (cm): 2 Morph.: RP

DISTURBANCE INDICATORS: D0 (beavdam, circled) B1 B2 B3 D1 D2 D3; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI (circled) ST
ISLANDS: N (circled) O I F S AN
BARS: N (circled) SIDE DIAG MID SPAN BR
COUPLING: DC (circled) PC CO
CONFINEMENT: EN CO FC OC UN (circled) N/A

COVER

COVER Total: A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	S	N	N	T	S	D	T
LOC	P			P	P	P	

CROWN CLOSURE: 0 1 2 3 4 (circled) 5
LWD FNC: N (circled) F A DIST: C E INSTREAM VEG: N A M V (circled)
LB SHP: U V (circled) S O RB SHP: U V (circled) S O
TEXTURE: F (circled) G C B R A TEXTURE: F (circled) G C B R A
RIP. VEG.: N G S (circled) C D M W RIP. VEG.: N G S (circled) C D M W
STAGE: INIT SHR PS YF MF NA (circled) STAGE: INIT SHR PS YF MF NA (circled)

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

(21)

HABITAT QUALITY

V. poor habitat overall, stream ~~disperses~~ enters wetland with many shallow ponds choked by ISV, water completely contained by W, nothing flows out, hab not suitable for salmonids & is not utilized by fish.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	944	ST	X	no scale – wooded wetland

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

S6

(22)

FISH COLLECTION FORM

GAZETTED NAME: (local) Blk A82783-1 LAKE / **STREAM** (circled) / WETLAND
WATERSHED CODE: 48052589941848
WATERBODY ID: ILP MAP #: ILP #: 78311 SITE/LAKE CARD ATTACHED: Y (circled) N
PROJECT ID: REACH #: 3&4 D FISH PERMIT #: SM08-45742
DATE: 2008 07 15 to AGENCY: C016 CREW: MJ DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	TEMP	CON	TURB.	COMMENTS
901			9 652044 6104878 GP3	EF 1	16	110	34	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
901	EF 1	1	NFC			0				

(23)

NET / TRAP SPECIFICATIONS — GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
901	EF 1	1	1400	1415	186	150	1.3	0	500	80	6	SR	12B

COMMENTS

Sampled only d/s of xing & ~ 70 m into W
stream braided, shallow, inaccessible to
further sampling

(24)

SITE CARD

STREAM NAME (gaz.): | (local): 457 branch xing (BR 45)

WATERSHED CODE: 4802494001430014700

ILP MAP #: | ILP #: 45745 | NID MAP #: | NID #:

REACH #: 2 | SITE #: 10 | FIELD UTM: 9 631431 6162520 GPS | SITE LG: 500.0 | ACCESS: √4

DATE: 20080716 | TIME: 1000 | AGENCY: C016 | CREW: MJ DJ | FISH FORM: (Y) N

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)	T	1.8	1.5	1.3	1.6	1.7	1.2	AL	
WETTED WIDTH (m)	T	1.3	0.8	1.3	0.8	1.3	1.0	6	4
RES. POOL DEPTH (m)	MS	0.31						5	6
W_b Dp (m)	0.25	0.2	0.2	0.45	STAGE (L) M H				

No Vis. Ch. DW | Dry/Int. (circled) Tribs.

COVER	Total	A					
Type	SWD	LWD	B	U	DP	OV	IV
AMT	S	T	N	T	T	D	N
LOC	P	P		P	P	P	

CROWN CLOSURE: 0 | 1 (1-20%) | 2 (21-40%) | 3 (41-70%) | 4 (71-90%) | (5) (>90%)

LWD FNC: N (F) A | DIST: C (E) | INSTREAM VEG: (N) A M V

LB SHP: U (V) S O | RB SHP: U (V) S O

TEXTURE: (F) G (C) B R A | TEXTURE: (F) G (C) B R A

RIP. VEG.: N G (S) C D M W | RIP. VEG.: N G (S) C D M W

STAGE: INIT SHR PS YF MF (NA) | STAGE: INIT SHR PS YF MF (NA)

WATER: EMS: | REQ. #: | TEMP: 9 C T3 | COND.: 90 S/cm 54 | pH: | TURB.: T M L (C)

FLD SNS: N

MORPHOLOGY: BED MATERIAL Dominant: C | Subdom.: F | D95 (cm): 25 | D (cm): 4 | Morph.: CP

DISTURBANCE INDICATORS: O1 (beavdam) B1 (aban ch) B2 (erdbk) B3 (avul) D1 (SWD) D2 (LWD) D3 (jam) | C1 (ex rif) C2 (no pl) C3 (elev br) C4 (mult ch) C5 (dis line) S1 (hom bd) S2 (finger) S3 (lg wdg) S4 (ex bar) S5 (ex bd scr)

PATTERN: TM ME IM IR (SI) ST

ISLANDS: N (O) I F S AN

BARS: (N) SIDE DIAG MID SPAN BR

COUPLING: (DC) PC CO

CONFINEMENT: EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			DW			R__ F945	Stream starts to elevate	9 631431 6162520 GPS
			C	2	6 HC	R__ F946	Small - barrier, through	9 631372 6162430 GPS
						R__ F__	R&B	
						R__ F__		

(25)

HABITAT QUALITY: NFH - small & seasonal stream, almost dry already, trickles b/w cobbles with intermittent flow, v. shallow, fast @ HT, basically no pools, impassable cascade u/s of DW section. If usable only @ mouth.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	947	ST	U	Book
DIG	948	ST	D	-"-

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: WBCV UTM 9.630774.6162070

Sampled parent str @ xing to determine fish use
DV (87, 113,) captured
RB (76, 126, 103) just u/s of bridge
EF 35 sec / 20 m
500/80/6 T-10°C Cond 90

C: SC us of C

(26)

COMBINED FISH COLLECTION

GAZETTED NAME: Br 45 of 457 Rd xing | (local): 45745 | ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE: 4802494001430014700

WATERBODY ID: | ILP MAP #: | ILP #: | SITE/LAKE CARD ATTACHED: ☒ Y ☐ N

PROJECT ID: | REACH #: 2 | FISH PERMIT #: SM08-45742

DATE: 20080716 to | AGENCY: C016 | CREW: MJ DJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
10			9 631431 6162520 GPS	EF 1	9	90	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
10	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(27)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	10	EF 1	1	1000	1030	57	500	1	0	500	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

(28)

FISH COLLECTION FORM

GAZETTED NAME: Unnamed | (local) | LAKE (STREAM) WETLAND

WATERSHED CODE: 48024949914300

WATERBODY ID: | ILP MAP #: | ILP #: | SITE/LAKE CARD ATTACHED: Y (N)

PROJECT ID: | REACH #: 2 D | FISH PERMIT #: SM08-45742

DATE: 20080716 to | AGENCY: C016 | CREW: MJ DJ | RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
10AS			9 631785 6162164 GPS	EF 1	11	80	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
10AS	EF 1	1	DV	J		2	87	113	R	
10AS	EF 1	1	RB	J		3	76	126	R	

(29)

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.
	~~10 TS EF 1 1~~												

ELECTROFISHER SPECIFICATIONS

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	10AS	EF 1	1	0915	0916	35	20	3	0	500	80	6	SR	12B

COMMENTS: sampled to determine fish status in parent stream

(30)

SITE CARD

STREAM NAME (gaz.): Burbridge C | (local): Blk A82780 str AA1

WATERSHED CODE: 4C032540062400

ILP MAP #: | ILP #: | NID MAP #: | NID #:

REACH #: D | SITE #: 11 | FIELD UTM: 9 641461 6065769 GPS | SITE LG: 600.0 | ACCESS: FT

DATE: 20080801 | TIME: 0930 | AGENCY: C016 | CREW: MJ DJ | FISH FORM: (Y) N

CHANNEL	mthd							GRADIENT %	
CHANNEL WIDTH (m)	T	2.8	2.6	2.8	1.8	2.3	2.5	AL	
WETTED WIDTH (m)	T	2.3	1.1	1.9	0.9	0.7	1.3	6	5
RES. POOL DEPTH (m)	MS	0.29	0.22	0.32	0.28	0.23		3	6
W_b Dp (m)	0.3	0.4	0.4	0.5	STAGE (L) M H				

No Vis. Ch. DW | Dry/Int. Tribs.

COVER	Total	A					
Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	D	S	T	S	S	N
LOC	P	P	P	P	P	P	

CROWN CLOSURE: 0 | 1 (1-20%) | (2) (21-40%) | 3 (41-70%) | 4 (71-90%) | 5 (>90%)

LWD FNC: N F (A) | DIST: C (E) | INSTREAM VEG: (N) A M V

LB SHP: U (V) S O | RB SHP: U (V) S O

TEXTURE: F (G) C (B) R A | TEXTURE: F G C B R A

RIP. VEG.: N G S (C) D M W | RIP. VEG.: N G S (C) D M W

STAGE: INIT SHR PS YF (MF) NA | STAGE: INIT SHR PS YF (MF) NA

WATER: EMS: | REQ. #: | TEMP: 6 C T3 | COND.: 180 S/cm | pH: | TURB.: T M L (C)

FLD SNS: N

MORPHOLOGY: BED MATERIAL Dominant: G | Subdom.: B | D95 (cm): 50 | D (cm): 8 | Morph.: SP (?)

DISTURBANCE INDICATORS: O1 (beavdam) B1 (aban ch) B2 (erdbk) B3 (avul) (D1) (SWD) (D2) (LWD) D3 (jam) | C1 (ex rif) C2 (no pl) C3 (elev br) C4 (mult ch) C5 (dis line) S1 (hom bd) S2 (finger) S3 (lg wdg) S4 (ex bar) S5 (ex bd scr)

PATTERN: TM ME IM IR SI (ST)

ISLANDS: (N) O I F S AN

BARS: N (SIDE) DIAG MID SPAN BR

COUPLING: DC PC (CO)

CONFINEMENT: EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(31)

HABITAT QUALITY:
R - F - M - creek shallow with limited cover @ LF,
S - F - small & suitable gravel patches present throughout
O - N - no suitable pools observed
V. sparse CT population

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	959	M	0	CT photo
↓	960	ST	U	book
↓	961	ST	D	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: | C: S3

(32)

COMBINED FISH COLLECTION

GAZETTED NAME: Burnridge C (local) A-A1 — ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE: 460132540062400
WATERBODY ID — ILP MAP # — ILP # — SITE/LAKE CARD ATTACHED ☐ Y ☐ N
PROJECT ID — REACH # — FISH PERMIT # SMOB-45742
DATE 20080710717 to 20080717118 AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
11			9 641666 6065786 6P3	EF 1	9	130	C	Samp Jul 17/08
11			9 641461 6065769 6P3	EF 1	10	130	C	Samp Aug 1/08
11AS			9 640790 6066500 6P3	MT 1	13	130	C	Samp Jul 17/08
			9 640731 6066487 6P3	EF 1	13	130	C	Samp Jul 17/08

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
11	EF 1	1	NFC			0				
11	EF 1	2	CT	J		1	129	129	R	Capt on Aug 1, 2008 6MT in Swamp
11AS	MT 1	1	NFC			0				in Swamp
11AS	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.
	11AS	MT 1	1	07117	11:00	07118	0530	S		0.2			
	11AS	MT 2	1	07117	11:05		0535	S		0.5			
	11AS	MT 3	1	07117	11:28		0550	S		0.4			
	11AS	MT 4	1	07117	11:30		0555	S		1.0			
	11AS	MT 5	1	07117	11:35		0600	S		0.9			
	11AS	MT 6	1	07117	11:40		0605	S		1.2			

(33)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	11	EF 1	1	0930	0950	430	320	1.5	0	400	80	6	IR	12B
3	11	EF 2	1	0930	09	184	200	1.5	0	400	80	6	SR	12B
2	12	EF 1	1	1145	1155	79	79	1.5	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
	11	EF 2	1	CT	129											R__ F__

1 249 sec ds of CV - 170m
1 181 sec ds of CV - 200m
2 79 sec ds of last BD in Swampy Reach
3 184 sec N 300 m d/s from CV on Aug 1

(34)

SITE CARD

STREAM NAME (gaz.) — (local) BLK A82780 str AD1
WATERSHED CODE
ILP MAP # — ILP # 78004 — NID MAP # — NID #
REACH # 2 D — SITE # 12 — FIELD UTM 9 641199 6066101 6P3 — SITE LG 500.0 — ACCESS FT
DATE 20080801 — TIME 1030 — AGENCY CO16 — CREW MJ DJ — FISH FORM Y (N)

WATER

CHANNEL mthd — GRADIENT % — EMS — REQ. # — TEMP C — COND. S/cm — pH — TURB. I M L C — FLD SNS
CHANNEL WIDTH (m) — WETTED WIDTH (m) — RES. POOL DEPTH (m) — W_b Dp (m) — STAGE L M H — No Vis. Ch. DW — Dry/Int. Tribs. — BED MATERIAL Dominant — Subdom. — D95 (cm) — D (cm) — Morph.

COVER

Total — Type SWD LWD B U DP OV IV — AMT — LOC — CROWN CLOSURE (0 / 1 (1-20%) / 2 (21-40%) / 3 (41-70%) / 4 (71-90%) / 5 (>90%))
LWD FNC N F A — DIST C E — INSTREAM VEG N A M V
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS (headcutt abandn ch endbk anvl SWD LWD jam): O1 B1 B2 B3 D1 D2 D3 — ex inf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd sd): C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(35)

HABITAT QUALITY: NFH - discontinuous scoured channel with occasional gravel deposits. Channelized sections do not exceede 50m. Freq overbank flow with removed duff layer - not a stream according to FPC

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DJG	962	ST	D	Book - puddling up
	963		BD	Book - channelized fragment
	964		U	Book - dry sect. where overland flow occurs

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

Confirmed NCD @ Canyon FSR xing

NCD

(36)

SITE CARD

STREAM NAME (gaz.) — (local) BLK A82780 STRM A-D1
WATERSHED CODE
ILP MAP # — ILP # 78004 — NID MAP # — NID #
REACH # 1 D — SITE # 13 — FIELD UTM 9 641074 6066069 6P3 — SITE LG 140.0 — ACCESS FT
DATE 20080801 — TIME 1145 — AGENCY CO16 — CREW MJ DJ — FISH FORM Y (N)

WATER

CHANNEL mthd — GRADIENT % — EMS — REQ. # — TEMP — C — COND. — S/cm — pH — TURB. T M L C — FLD SNS N
CHANNEL WIDTH (m) T 0.6 0.7 0.7 0.8 0.6 0.9 — AV 6.2
WETTED WIDTH (m) T 0 0 0 0 0 0.6 — 0.9
RES. POOL DEPTH (m) 0.06
W_b Dp (m) 0.7 0.2 0.1 0.2 — STAGE (D) M H — No Vis. Ch. DW — Dry/Int. Tribs. — BED MATERIAL Dominant F — Subdom. C — D95 (cm) 14 — D (cm) 5 — Morph. CP

COVER

Total T (T)
Type SWD LWD B U DP OV IV
AMT S T N D N D N
LOC P P P P
CROWN CLOSURE: 0 / 1 / 2 / (3) / 4 / 5
LWD FNC N (F) A — DIST C (E) — INSTREAM VEG (N) A M V
LB SHP (U) V S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

MORPHOLOGY

DISTURBANCE INDICATORS: O1 B1 B2 (B3) D1 D2 D3 — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING (UC) PC CO
CONFINEMENT EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			FSZ	25		R__ F__	Barely habitable @ HF	9 641074 6066069 6P3
						R__ F__		
						R__ F__		
						R__ F__		

(37)

HABITAT QUALITY: NFH - tiny stream, watered only during early spring. Spawn ISC noted only w/in 25m from mouth where fish can seek refuge. Otherwise stream flows basically through trough. No fish use

FSZ p. 25 m from mouth

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DJG	965	ST	U	Book
	966	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

36

(38)

SITE CARD

STREAM NAME (gaz.) — (local) BLK A82780 str ABZ
WATERSHED CODE
ILP MAP # — ILP # 78003 — NID MAP # — NID #
REACH # 1 D — SITE # 14 — FIELD UTM 9 640970 6066224 6P3 — SITE LG 400.0 — ACCESS FT
DATE 20080801 — TIME 1230 — AGENCY CO16 — CREW MJ DJ — FISH FORM Y (N)

WATER

CHANNEL mthd — GRADIENT % — EMS — REQ. # — TEMP 9 C 13 — COND. S/cm — pH — TURB. T M L (H) — FLD SNS N
CHANNEL WIDTH (m) T 0.9 0.6 0.4 0.3 0.7 0.5 — AV 1.4
WETTED WIDTH (m) T 0 0.1 0 0 0 0.1
RES. POOL DEPTH (m) Ws 0.27
W_b Dp (m) 0.2 0.3 0.1 0.3 — STAGE (D) M H — No Vis. Ch. DW — Dry/Int. (Int.) Tribs. — BED MATERIAL Dominant F — Subdom. C — D95 (cm) 15 — D (cm) F — Morph. CP

COVER

Total T
Type SWD LWD B U DP OV IV
AMT S T N S T D N
LOC P P P P P
CROWN CLOSURE: 0 / 1 / (2) / 3 / 4 / 5
LWD FNC N (F) A — DIST C (E) — INSTREAM VEG (N) A M V
LB SHP (U) V S O
TEXTURE (F) G (C) B R A
RIP. VEG. N G S (C) D M W
STAGE INIT SHR PS YF (MF) NA

MORPHOLOGY

DISTURBANCE INDICATORS: (O1) B1 B2 B3 D1 D2 D3 — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING (UC) PC CO
CONFINEMENT EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			FLD	16 0		R216 F967	No channel, barely scoured duff for 5m from pond	9 640970 6066224 6P3
			FSZ	45 0		R__ F__		
						R__ F__		
						R__ F__		

(39)

HABITAT QUALITY: NFH - seasonal trickle disperses through ground near BP. No hab to offset for seasonal use. Barely a stream x 80m from pond and loses stream char x 200 m w/s from pond

FSZ X potential use by DV/CT w/in wetland x 45m

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DJG	967	ST	U	Book - FLD feature
	968		U	Book
	969		D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

36

(40)

SITE CARD

STREAM NAME (gaz.) BLK A82780 (local) STRM AC1

WATERSHED CODE

ILP MAP # | ILP # 78002 | NID MAP # | NID #

REACH # 1 D | SITE # 18 | FIELD UTM 9 641996 6066523 GP3 | SITE LG 500 0 | ACCESS V4

DATE 20080804 | TIME 0730 | AGENCY CO16 | CREW MJ, DJ | FISH FORM Y (circled) N

CHANNEL	mthd						
CHANNEL WIDTH (m)	T	1.1	0.7	0.8	0.8	1.2	0.9
WETTED WIDTH (m)	T	0.8	0.6	0.8	0.8	1.0	0.7
RES. POOL DEPTH (m)	MS	0.14	0.11	0.19	0.22		

GRADIENT %: AL; 7, 8; 5, 9

W_b Dp (m) 0.3 0.25 0.4 0.2 | STAGE L (circled) M H | No Vis. Ch. DW | Dry/Int. Tribs.

WATER: EMS | TEMP 7 C | T3 | REQ. # | COND. 160 S/cm | S4 | pH — | TURB. T M L C (circled) | GE

MORPHOLOGY: FLD SNS N | BED MATERIAL Dominant C | Subdom. F | D95 (cm) 40 | D (cm) 3 | Morph. CP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN SI (circled) | ISLANDS N (circled) | BARS N (circled) | COUPLING PC (circled) | CONFINEMENT FC (circled)

COVER Total A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	S	T	S	D	T	S	N
LOC	P	P	P	P	P	P	

CROWN CLOSURE: 2 (circled)

LWD FNC F (circled) | DIST E (circled) | INSTREAM VEG N (circled)

LB SHP U (circled) | TEXTURE F, C (circled) | RIP. VEG. C (circled) | STAGE MF (circled)

RB SHP U (circled) | TEXTURE F, C (circled) | RIP. VEG. C (circled) | STAGE MF (circled)

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM

(49)

HABITAT QUALITY:
R - usable in small pool & under banks
S - none
O - none

Stream with sections of UGF & bridged banks

FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	990	ST	U	Book
DIG	991	ST	D	—"—

WILDLIFE: GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS:
Small - perennial stream, marginal habitat available, however unlikely utilized d/t impediments by BD in perent stream & scarce fish

Easily accessible

(54)

(50)

COMBINED FISH COLLECTION

GAZETTED NAME BLK A82780 (local) str AC1 | ☐ LAKE ☑ STREAM ☐ WETLAND

WATERSHED CODE

WATERBODY ID | ILP MAP # | ILP # 78002 | SITE/LAKE CARD ATTACHED ☑ Y ☐ N

PROJECT ID | REACH # 1 | FISH PERMIT # SM08-45742

DATE 20080804 to | AGENCY CO16 | CREW MJ, DJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
18			9 641996 6066523 GP3	EF 1	7	160	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
18	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS: C | SITE # | MTD / # | HAUL | DATE IN | TIME IN | DATE OUT | TIME OUT | NET TYPE | LENGTH | DEPTH | MESH SIZE | SET | HAB.

(51)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	18	EF 1	1	0730	0800	307	500	0.8	0	300	80	6	SR	12B

C | SITE # | MTD / # | H / P | SPEC. | LENGTH | WEIGHT | SEX | MATUR. | AGE STRUCTURE | SAMPLE # | AGE | VOUCHER # | GENETIC STRUCTURE | SAMPLE # | COMMENTS | PHOTO R__ F__

(52)

SITE CARD

STREAM NAME (gaz.) (local) BLK A82780 str AE-1

WATERSHED CODE 460-325400-62400-67300

ILP MAP # | ILP # | NID MAP # | NID #

REACH # 1 D | SITE # 19 | FIELD UTM 9 641822 6065595 GP3 | SITE LG 300 0 | ACCESS V4

DATE 20080804 | TIME 0930 | AGENCY CO16 | CREW MJ, DJ | FISH FORM Y (circled) N

CHANNEL	mthd						
CHANNEL WIDTH (m)	T	1.4	1.3	1.6	1.3	1.6	1.5
WETTED WIDTH (m)	T	1.3	1.2	1.6	1.3	1.0	0.8
RES. POOL DEPTH (m)	M>	0.31	0.37	0.19	0.33	0.28	0.22

GRADIENT %: AL; 5, 4; 2, 5

W_b Dp (m) 0.4 0.3 0.4 0.45 | STAGE L (circled) M H | No Vis. Ch. DW | Dry/Int. Tribs.

WATER: EMS | TEMP 7 C | T3 | REQ. # | COND. 150 S/cm | S4 | pH | TURB. T M L C (circled) | GE

MORPHOLOGY: FLD SNS N | BED MATERIAL Dominant F | Subdom. B | D95 (cm) 60 | D (cm) 3 | Morph. RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN SI (circled) | ISLANDS O (circled) | BARS N (circled) | COUPLING DC (circled) | CONFINEMENT OC (circled)

COVER Total A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	S	D	S	T	N
LOC	P	P	C	P	P	P	

CROWN CLOSURE: 2 (circled)

LWD FNC F (circled) | DIST E (circled) | INSTREAM VEG N (circled)

LB SHP U (circled) | TEXTURE F, B (circled) | RIP. VEG. S (circled) | STAGE NA (circled)

RB SHP U (circled) | TEXTURE F, B (circled) | RIP. VEG. S (circled) | STAGE NA (circled)

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM

(53)

HABITAT QUALITY:
R - F-M - better @ MF me.
S - P-F - small gravel patches scarce, too much fines decreases eggs survival, good holding
O - Same pool may be sufficient considering deep under cut / bridging.

FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	992	ST	U	Book
DIG	993	ST	D	Book

WILDLIFE: GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS: C | C

(54)

(54)

COMBINED FISH COLLECTION

GAZETTED NAME BLK A82780 (local) str AE-1 | ☐ LAKE ☑ STREAM ☐ WETLAND

WATERSHED CODE 460-325400-62400-67300

WATERBODY ID | ILP MAP # | ILP # | SITE/LAKE CARD ATTACHED ☑ Y ☐ N

PROJECT ID | REACH # 1 | FISH PERMIT # SM08-45742

DATE 20080804 to | AGENCY CO16 | CREW MJ, DJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
19			9 641822 6065595 GP3	EF 1	7	150	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
19	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS: C | SITE # | MTD / # | HAUL | DATE IN | TIME IN | DATE OUT | TIME OUT | NET TYPE | LENGTH | DEPTH | MESH SIZE | SET | HAB.

(55)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	19	EF 1	1	0930	0945	276	300	1.2	0	300	80	6	SR	12B

C | SITE # | MTD / # | H / P | SPEC. | LENGTH | WEIGHT | SEX | MATUR. | AGE STRUCTURE | SAMPLE # | AGE | VOUCHER # | GENETIC STRUCTURE | SAMPLE # | COMMENTS | PHOTO R__ F__

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SITE CARD

STREAM NAME (gaz.)	BLK A82780	(local)	STRM AC1				
WATERSHED CODE							
ILP MAP #		ILP #	78002	NID MAP #		NID #	
REACH #	1 D	SITE #	18	FIELD UTM	9 641996 6066523 GP3	SITE LG	500 0
ACCESS	V4						
DATE	20080804	TIME	0730	AGENCY	C016	CREW	MJ DJ
FISH FORM	(Y) N						

CHANNEL	mthd						
CHANNEL WIDTH (m)	T	1.1	0.7	0.8	0.8	1.2	0.9
WETTED WIDTH (m)	T	0.8	0.6	0.8	0.8	1.0	0.7
RES. POOL DEPTH (m)	MS	0.14	0.11	0.19	0.22		
W_b Dp (m)	0.3	0.25	0.4	0.2			

STAGE (L) M H — No Vis. Ch. DW — Dry/Int. Tribs.

GRADIENT %: AL; 7 8; 5 9

WATER			
EMS		REQ. #	
TEMP	7 C T3	COND.	160 S/cm S4
pH	—	TURB.	T M L (C) 6E
FLD SNS	N		

MORPHOLOGY			
BED MATERIAL Dominant	C	Subdom.	F
D95 (cm)	40	D (cm)	3
Morph.	CP		

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

COVER	Total	A					
Type	SWD	LWD	B	U	DP	OV	IV
AMT	S	T	S	D	T	S	N
LOC	P	P	P	P	P	P	

CROWN CLOSURE: 0, 1, (2), 3, 4, 5

- LWD FNC: N (F) A — DIST: C (E)
- INSTREAM VEG: (N) A M V
- LB SHP: (U) V S O — RB SHP: (U) V S O
- TEXTURE (LB): (F) G (C) B R A — TEXTURE (RB): (F) G (C) B R A
- RIP. VEG. (LB): N G S (C) D M W — RIP. VEG. (RB): N G S (C) D M W
- STAGE (LB): INIT SHR PS YF (MF) NA — STAGE (RB): INIT SHR PS YF (MF) NA
- PATTERN: TM ME IM IR (SI) ST
- ISLANDS: (N) O I F S AN
- BARS: (N) SIDE DIAG MID SPAN BR
- COUPLING: DC (PC) CO
- CONFINEMENT: EN CO (FC) OC UN N/A

FEATURES C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(49)

HABITAT QUALITY

R- usable in small pool & under banks
S- none
O- none

Stream with sections of UGF & bridged banks

FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	990	ST	U	Book
DIG	991	ST	D	—"—

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: Small - perennial stream, marginal habitat available, however unlikely utilized d/t impediments by BD in prevent stream & scarce fish

Easily accessible

(54)

(50)

COMBINED FISH COLLECTION

GAZETTED NAME	BLK A82780	(local)	str AC1
☐ LAKE ☒ STREAM ☐ WETLAND			
WATERSHED CODE			
WATERBODY ID		ILP MAP #	
ILP #	78002	SITE/LAKE CARD ATTACHED	☒ Y ☐ N
PROJECT ID		REACH #	1
FISH PERMIT #	SM08-45742		
DATE	20080804 to	AGENCY	C016
CREW	MJ DJ	☐ RE-SAMPLE	

SITE / METHOD: SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
18			9 641996 6066523 GP3	EF 1	7	160	C	

FISH SUMMARY: SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
18	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(51)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	18	EF 1	1	0730	0800	307	500	0.8	0	300	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

(52)

SITE CARD

STREAM NAME (gaz.)		(local)	BLK A82780 str AE-1				
WATERSHED CODE	460 325400 624000 67300						
ILP MAP #		ILP #		NID MAP #		NID #	
REACH #	1 D	SITE #	19	FIELD UTM	9 641822 6065595 GP3	SITE LG	300 0
ACCESS	V4						
DATE	20080804	TIME	0930	AGENCY	C016	CREW	MJ DJ
FISH FORM	(Y) N						

CHANNEL	mthd						
CHANNEL WIDTH (m)	T	1.4	1.3	1.6	1.3	1.6	1.5
WETTED WIDTH (m)	T	1.3	1.2	1.6	1.3	1.0	0.8
RES. POOL DEPTH (m)	M>	0.31	0.31	0.19	0.33	0.28	0.22
W_b Dp (m)	0.4	0.3	0.4	0.45			

STAGE (L) M H — No Vis. Ch. DW — Dry/Int. Tribs.

GRADIENT %: AL; 5 4; 2 5

WATER			
EMS		REQ. #	
TEMP	7 C T3	COND.	150 S/cm S4
pH		TURB.	T M L (C) 6E
FLD SNS	N		

MORPHOLOGY			
BED MATERIAL Dominant	F	Subdom.	B
D95 (cm)	60	D (cm)	3
Morph.	RP		

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

COVER	Total	A					
Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	S	D	S	T	N
LOC	P	P	C	C	P	P	

CROWN CLOSURE: 0, 1, (2), 3, 4, 5

- LWD FNC: N (F) A — DIST: C (E)
- INSTREAM VEG: (N) A M V
- LB SHP: (U) V S O — RB SHP: (U) V S O
- TEXTURE (LB): (F) G C (B) R A — TEXTURE (RB): (F) G C (B) R A
- RIP. VEG. (LB): N G (S) C D M W — RIP. VEG. (RB): N G (S) C D M W
- STAGE (LB): INIT SHR PS YF MF (NA) — STAGE (RB): INIT SHR PS YF MF (NA)
- PATTERN: TM ME IM IR (SI) ST
- ISLANDS: N (O) I F S AN
- BARS: (N) SIDE DIAG MID SPAN BR
- COUPLING: (DC) PC CO
- CONFINEMENT: EN CO FC (OC) UN N/A

FEATURES C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(53)

HABITAT QUALITY

R- F-M- better @ MF me.
S- P-F- small gravel patches scarce, too much fines decreases eggs survival, good holding
O- same pool may be sufficient considering deep under cut /bridging.

FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	992	ST	U	Book
DIG	993	ST	D	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS:

(54)

(54)

COMBINED FISH COLLECTION

GAZETTED NAME	BLK A82780	(local)	str AE-1
☐ LAKE ☒ STREAM ☐ WETLAND			
WATERSHED CODE	460 325 400 624 000 67300		
WATERBODY ID		ILP MAP #	
ILP #		SITE/LAKE CARD ATTACHED	☒ Y ☐ N
PROJECT ID		REACH #	1
FISH PERMIT #	SM08-45742		
DATE	20080804 to	AGENCY	C016
CREW	MJ DJ	☐ RE-SAMPLE	

SITE / METHOD: SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
19			9 641822 6065595 GP3	EF 1	7	150	C	

FISH SUMMARY: SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
19	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(55)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	19	EF 1	1	0930	0945	276	300	1.2	0	300	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

(56)

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_B1 (NW)
WATERSHED CODE
ILP MAP # ILP # 54701 NID MAP # NID #
REACH # 3 D SITE # 20 FIELD UTM 9,635255,6160749,6P3 SITE LG 500,0 ACCESS FT
DATE 20080802 TIME 1113.0 AGENCY CO16 CREW MJ, DJ FISH FORM Y (N)

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %
EMS REQ. #
TEMP C COND. S/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS (treadtrail, abun ch, embed, avul, SWD, LWD, jam; ex ef, no pl, elev br, mult ch, dis tmb, hom bd, finger, lg wdg, ex bar, ex bd sc) O1 B1 B2 B3 D1 D2 D3 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-% 0 1 2 3 4 5
LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F

NFH – becomes NCD @ site location; no scoured channel bed or fluvial deposits, becomes channelized +/- → see site 21

HABITAT QUALITY

PHOTO DOCUMENTATION: FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	977	55	U	book
DIG	978	55	U	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C

NCD

(57) (58)

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_B2 (NW)
WATERSHED CODE
ILP MAP # ILP # 54701 NID MAP # NID #
REACH # 4 D SITE # 21 FIELD UTM 9,635300,6160885,6P3 SITE LG 220,0 ACCESS FT
DATE 20080802 TIME 1210 AGENCY CO16 CREW MJ, DJ FISH FORM Y

CHANNEL mthd
CHANNEL WIDTH (m) T 0.6 0.2 0.7 1.0 0.8 1.1
WETTED WIDTH (m) T 0.6 0.1 0.2 0.1 0.2 0.2
RES. POOL DEPTH (m) MS 0.02 0.07
W_b Dp (m) 0.1 0.1 0.2 0.1 STAGE M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT % AL 0 0.5
EMS REQ. #
TEMP 10 C T3 COND. S/cm
pH TURB. T M L (0) (E)
FLD SNS
BED MATERIAL Dominant F Subdom. N4
D95 (cm) 0.1 D (cm) 0.1 Morph. LC
DISTURBANCE INDICATORS (treadtrail, abun ch, embed, avul, SWD, LWD, jam; ex ef, no pl, elev br, mult ch, dis tmb, hom bd, finger, lg wdg, ex bar, ex bd sc) O1 B1 B2 B3 D1 D2 D3 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM (IR) SI ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING (NC) PC CO
CONFINEMENT EN CO FC OC (UN) N/A

COVER: Total A
Type SWD LWD B U DP OV IV
AMT S N N T N D N
LOC P P P
CROWN CLOSURE 0 1 2 3 (4) 5
LWD FNC (N) F A DIST C E
INSTREAM VEG (N) A M V
LB SHP U (V) S O
RB SHP U (V) S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF (MF) NA
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F

NFH – small & shallow seasonal trickle → almost dry channelized for only 140m and then disperses again & creates isolated muddy puddles w/in alder corridor

HABITAT QUALITY

PHOTO DOCUMENTATION: FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DG	979	55	U	book
DG	980	55	D	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C

S6

(59) (60)

AVG 2

S.21A

1st "creek" → matched there
DATA 9.635399.6160942

2nd "creek"

S.21B

UTM 9,635898.
6160355

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_B3 (NW)
WATERSHED CODE
ILP MAP # ILP # 54702 NID MAP # NID #
REACH # 2/3 D SITE # 22 FIELD UTM 9,636014,6160166,6P3 SITE LG 600,0 ACCESS FT
DATE 20080802 TIME 1430 AGENCY CO16 CREW MJ, DJ FISH FORM Y (N)

CHANNEL mthd
CHANNEL WIDTH (m) T 1.5 1.3 1.6 1.5 1.2 1.3
WETTED WIDTH (m) T 0.3 0.5 0.5 0.2 0.3 0.7
RES. POOL DEPTH (m) MS 0.33 0.17
W_b Dp (m) 0.3 0.25 0.25 0.3 STAGE (D) M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT % AL 1 1 1 3
EMS REQ. #
TEMP 14 C T3 COND. S/cm
pH TURB. T M L (0) (E)
FLD SNS N
BED MATERIAL Dominant F Subdom. C
D95 (cm) 16 D (cm) 4 Morph. RP
DISTURBANCE INDICATORS (treadtrail, abun ch, embed, avul, SWD, LWD, jam; ex ef, no pl, elev br, mult ch, dis tmb, hom bd, finger, lg wdg, ex bar, ex bd sc) O1 B1 B2 B3 (D1) D2 D3 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR (S) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING (DC) PC CO
CONFINEMENT EN CO (FC) OC UN N/A

COVER: Total A
Type SWD LWD B U DP OV IV
AMT S T N S T D N
LOC P C P P C
CROWN CLOSURE 0 1 2 (3) 4 5
LWD FNC N (P) A DIST C (P)
INSTREAM VEG (N) A M V
LB SHP U (P) S O
RB SHP (P) V S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF (MF)
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F

NFH – during to documented NFH upstream (Triton 97 FINS 2006). Do not provide S or O hab anyway, seasonal use would be limited to July anyway

HABITAT QUALITY

PHOTO DOCUMENTATION: FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	981	55	U	
DIG	982	55	D	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C

C: Disturbed by skidder @ MM 9.635772.6160228. Another NCD joins @ LB.

FLD @ UTM 9.635693.6159276 → seasonal puddles up

S6/NCD

(62) (63)

SITE CARD

STREAM NAME (gaz.) (local) SFU_2008_FSZ (NW)
WATERSHED CODE
ILP MAP # ILP # 54705 NID MAP # NID #
REACH # 1 D SITE # 23 FIELD UTM 9 636034 6159825 6P3 SITE LG 150 0 ACCESS FT
DATE 2008/08/07 TIME 1610 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs. | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% | 0 1 2 3 4 5
DISTURBANCE INDICATORS: beaudam | aban ch | erdbk | avul | SWD | LWD | jam | ex cr | no pl | elev br | mult ch | dis line | horn bd | finger | lg widg | ex bar | ex bd spl
O1 B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
LWD FNC N F A DIST C E | INSTREAM VEG N A M V | PATTERN TM ME IM IR SI ST
LB SHP U V S O | RB SHP U V S O | ISLANDS N O I F S AN
TEXTURE F G C B R A | TEXTURE F G C B R A | BARS N SIDE DIAG MID SPAN BR
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M W | COUPLING DC PC CO
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA | CONFINEMENT EN CO FC OC UN N/A

MORPHOLOGY

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

(64)

HABITAT QUALITY: NFH

PHOTO DOCUMENTATION: FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	984	ST	U	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Channelized near the current stream for ~ 50m then seeps through wetlandish area. Terminated @ squishy area OK proceed

NCD

(65)

3rd "creek" → nothing
Site (Z3A)
UTM. 636030. 6159654

SITE CARD

STREAM NAME (gaz.) (local) SFU_2008_FSZ (NW)
WATERSHED CODE
ILP MAP # ILP # 54703 NID MAP # NID #
REACH # 1 D SITE # 24 FIELD UTM 9 635773 6160025 6P3 SITE LG 100 0 ACCESS FT
DATE 2008/08/07 TIME 1310 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs. | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% | 0 1 2 3 4 5
DISTURBANCE INDICATORS: beaudam | aban ch | erdbk | avul | SWD | LWD | jam | ex cr | no pl | elev br | mult ch | dis line | horn bd | finger | lg widg | ex bar | ex bd spl
O1 B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
LWD FNC N F A DIST C E | INSTREAM VEG N A M V | PATTERN TM ME IM IR SI ST
LB SHP U V S O | RB SHP U V S O | ISLANDS N O I F S AN
TEXTURE F G C B R A | TEXTURE F G C B R A | BARS N SIDE DIAG MID SPAN BR
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M W | COUPLING DC PC CO
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA | CONFINEMENT EN CO FC OC UN N/A

MORPHOLOGY

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

(66)

HABITAT QUALITY: NFH

PHOTO DOCUMENTATION: FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
				No Photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Short & unmapped drainage through deer alder corridor

NCD

(67)

SITE CARD

STREAM NAME (gaz.) (local) SFU_2008_FSZ (NW)
WATERSHED CODE
ILP MAP # ILP # 54704 NID MAP # NID #
REACH # 1 D SITE # 25 FIELD UTM 9 635753 6159981 6P3 SITE LG 270 0 ACCESS FT
DATE 2008/08/07 TIME 1410 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs. | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% | 0 1 2 3 4 5
DISTURBANCE INDICATORS: beaudam | aban ch | erdbk | avul | SWD | LWD | jam | ex cr | no pl | elev br | mult ch | dis line | horn bd | finger | lg widg | ex bar | ex bd spl
O1 B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
LWD FNC N F A DIST C E | INSTREAM VEG N A M V | PATTERN TM ME IM IR SI ST
LB SHP U V S O | RB SHP U V S O | ISLANDS N O I F S AN
TEXTURE F G C B R A | TEXTURE F G C B R A | BARS N SIDE DIAG MID SPAN BR
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M W | COUPLING DC PC CO
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA | CONFINEMENT EN CO FC OC UN N/A

MORPHOLOGY

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

(68)

HABITAT QUALITY: NFH

PHOTO DOCUMENTATION: FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	983	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Flows through smoke gully w/s of lopped area and through disc, crosses within lopped area.

NCD

(69)

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_R1 (SE)
WATERSHED CODE
ILP MAP # ILP # 54720 NID MAP # NID #
REACH # D SITE # 26 FIELD UTM 9636940 6159140 6F3 SITE LG 1000 ACCESS FT
DATE 2.10.08.08.03 TIME 1310 AGENCY CO16 CREW MJ DJ FISH FORM (Y) N

CHANNEL mthd — GRADIENT %

CHANNEL WIDTH (m)	T	3.4	3.2	3.2	5	3.3	3.2																		
WETTED WIDTH (m)	T	2.8	2.0	1.5	1.3	1.8	2.6																		
RES. POOL DEPTH (m)	MS	1.0	4.2																						
W_b Dp (m)	0.3	0.3	0.4																						

GRADIENT %: AL 3 2 3 5

STAGE (L) M H — No Vis. Ch. DW — Dry/Int. Tribs.

EMS — REQ. #
TEMP 12 C T3 — COND. 120 S/cm S4
pH — TURB. T M L (D) GE
FLD SNS (N)
BED MATERIAL Dominant (C) — Subdom. B
D95 (cm) 51 — D (cm) 6 — Morph. RP

COVER Total A

	Type	SWD	LWD	B	U	DP	OV	IV
AMT		S	T	S	T	D	T	
LOC		P	P	C	P	P	P	

CROWN CLOSURE: 0 1 (2) 3 4 5

LWD FNC N (F) A — DIST C (D)
LB SHP U (V) S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

INSTREAM VEG N A (M) V
RB SHP U V (S) O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

DISTURBANCE INDICATORS: O1 B1 B2 B3 (D1) D2 D3 / C1 C2 C3 (C4) C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST
ISLANDS N O (I) F S AN
BARS N (SIDE) DIAG MID SPAN BR
COUPLING DC (PC) CO
CONFINEMENT EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(70)

HABITAT QUALITY: R - M - lack of deep pools
S - None observed, brushy mix C/G
D - Only 1 pool found with 150 mm

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	985	ST	U	Book
DIG	986	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: grades to confirmed NFB system (Trit 67, FISH 07)

56

(71)

COMBINED FISH COLLECTION

GAZETTED NAME BLK SFH_2008_R1 (SE) (local) ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 54720 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # – FISH PERMIT # SM08-45742
DATE 2.10.08.08.03 to AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB	COMMENTS
26			9636940 6159140 6F3	EF 1	12	120	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
26	EF 1	1	NFC	U		0				

GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(72)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	26	EF 1	1	1300	1503	621	100	2	0	403	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

(73)

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_R2 (SE)
WATERSHED CODE
ILP MAP # ILP # 54721 NID MAP # NID #
REACH # D SITE # 27 FIELD UTM 9616984 6158571 6F3 SITE LG 100 ACCESS FT
DATE 2.10.08.08.03 TIME 1145 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd — GRADIENT %

CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m)

STAGE L M H — No Vis. Ch. DW — Dry/Int. Tribs.

EMS — REQ. #
TEMP C — COND. S/cm
pH — TURB. T M L C
FLD SNS
BED MATERIAL Dominant — Subdom.
D95 (cm) — D (cm) — Morph.

COVER Total

	Type	SWD	LWD	B	U	DP	OV	IV
AMT								
LOC								

CROWN CLOSURE: 0 1 2 3 4 5

LWD FNC N F A — DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(74)

HABITAT QUALITY: NFH

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	987	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Tiny & unmapped drainage from nearby other peat complex/areal wear confluence with perenn stream. No scoured channel bed beyond 20 m from mouth or fluvial substrate

NCD

(75)

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_R3 (SE)
WATERSHED CODE
ILP MAP # ILP # 54722 NID MAP # NID #
REACH # D SITE # 28 FIELD UTM 9637096 6158571 6F3 SITE LG 4300 ACCESS FT
DATE 2.10.08.08.03 TIME 1445 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd — GRADIENT %

CHANNEL WIDTH (m)	T	1.1	1.7	1.5	1.6	1.6	1.4																		
WETTED WIDTH (m)	T	0.5	0.3	0.1	1.3	0																			
RES. POOL DEPTH (m)	MS	0.13																							
W_b Dp (m)	0.2	0.2	0.2	0.3																					

GRADIENT %: AL 3

STAGE (L) M H — No Vis. Ch. DW — Dry/Int. Tribs.

EMS — REQ. #
TEMP 14 C T3 — COND. 130 S/cm S4
pH — TURB. T M L (D) GE
FLD SNS (N)
BED MATERIAL Dominant (C) — Subdom. F
D95 (cm) 3 — D (cm) — Morph. RP

COVER Total T (M)

	Type	SWD	LWD	B	U	DP	OV	IV
AMT		S	T	N	T	D	N	
LOC		P	P	I	P	P	P	

CROWN CLOSURE: 0 1 2 (3) 4 5

LWD FNC N (F) A — DIST C (E)
LB SHP U (V) S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF (MF) NA

INSTREAM VEG (N) A M V
RB SHP U (V) S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC (PC) CO
CONFINEMENT EN CO (FC) OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(76)

HABITAT QUALITY: NFH - would provide only seasonal habitat but flows into NFB stream.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	988	ST	U	Book
DIG	989	ST	D	-11-

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

56

(77)

FISH COLLECTION FORM

GAZETTED NAME (local) LAKE STREAM WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 54722 SITE/LAKE CARD ATTACHED Y N
PROJECT ID REACH # 1 D FISH PERMIT # SK 08-45742
DATE 20/08/03 to YY MM DD AGENCY CO16 CREW MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION TURB	STREAM CONDITION CON	COMMENTS
28			9 637096 6158571 GP3	EF 1	14	130	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
28	EF 1	1	NFC			0				

(78)

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAR.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	∑ SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
28	EF 1	1	1645	1509	117	40.	0.5	D	401	80	6	LR	12B

COMMENTS

(79)

SITE CARD

STREAM NAME (gaz.) (local) BLK A84067
WATERSHED CODE
ILP MAP # ILP # 64004 NID MAP # NID #
REACH # 1 D SITE # 29 FIELD UTM 9 625774 5952574 GP3 SITE LG 400 10 ACCESS FS
DATE 20/08/04 TIME 1330 AGENCY CO16 CREW MJ, DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m) 12
WETTED WIDTH (m) 3
RES. POOL DEPTH (m) 1
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT % 12 / 26 / 33 / 11

WATER
EMS TEMP C REQ. # COND. S/cm pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom. D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100% → 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS (recruitment, abundance, condition, size) O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(80)

HABITAT QUALITY
NFH - steep NCD, scoured channel not exceeding 100m in length ! longest ~70m near Datsa L. (~20m u/s)

PHOTO DOCUMENTATION FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	994	ST	U	Book
DIG	995	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C
~~Steep NCD @ 9,627774,5952574~~
Note left on ribbon @ xing
NCD
All NCD - steep d/s of xing - no continuous channel returns out just before Datsa L

(81)

SITE CARD

STREAM NAME (gaz.) (local) BLK A84069
WATERSHED CODE
ILP MAP # ILP # 62161 NID MAP # NID #
REACH # 1 D SITE # 30 FIELD UTM 9 627816 5963056 GP3 SITE LG 100 6E ACCESS FS
DATE 20/08/04 TIME 1510 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %

WATER
EMS TEMP C REQ. # COND. S/cm pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom. D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100% → 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS (recruitment, abundance, condition, size) O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(82)

HABITAT QUALITY
NFH - drains small wetland, no scoured channel bed or flowing. Not a stream - mucky goo which enters wetland adjacent to Twinkle L (clear for ~30m u/s from wetland)

PHOTO DOCUMENTATION FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	996	ST	U	Book
DIG	997	ST	U	" "

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C
xing @ UTM 9,627735,5963017
NCD

(83)

SITE CARD

STREAM NAME (gaz.) (local) BLK SFU 2008-131
WATERSHED CODE
ILP MAP # ILP # 54723 NID MAP # NID #
REACH # 1 D SITE # 31 FIELD UTM 9 637151 6158473 GP3 SITE LG 100 0 ACCESS FS
DATE 20/08/05 TIME 0930 AGENCY CO16 CREW MJ, DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %

WATER
EMS TEMP C REQ. # COND. S/cm pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom. D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100% → 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS (recruitment, abundance, condition, size) O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(84)

HABITAT QUALITY
NFH

PHOTO DOCUMENTATION FSZ

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	999	ST	X	no scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C
Short unmapped seepage from older septic, no continuous flowing or scoured channel bed, just discontinuous mud holes
NCD

(85)

Aug 5

strm 4th → nothing

2nd dry gully mismapped → (Site 31A)

UTM 9, 637136, 6158211,

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_B1 (SE)

WATERSHED CODE

ILP MAP # ILP # 54724 NID MAP # NID #

REACH # 1 D SITE # 32 FIELD UTM 9 637713 6158533 GPS SITE LG 200 0 ACCESS FT

DATE 2008 08 05 TIME 1215 AGENCY COI6 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd — GRADIENT %

CHANNEL WIDTH (m)

WETTED WIDTH (m)

RES. POOL DEPTH (m)

W_b Dp (m) STAGE L M H — No Vis. Ch. DW — Dry/Int. Tribs.

COVER Total

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

LWD FNC N F A DIST C E INSTREAM VEG N A M V

LB SHP U V S O RB SHP U V S O

TEXTURE F G C B R A TEXTURE F G C B R A

RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W

STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

EMS TEMP C REQ. # COND. S/cm pH TURB. T M L C

FLD SNS

BED MATERIAL Dominant Subdom. D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(86)

HABITAT QUALITY: NFH - seepage

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1000	ST	U	Brk

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Occasionally scoured channel, discontinuous alluvium & sparse - not a stream

Drains not as mapped on TRIM

NCD

(87)

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_B1 (SE)

WATERSHED CODE

ILP MAP # ILP # 54725 NID MAP # NID #

REACH # 1 D SITE # 33 FIELD UTM 9 637794 6158360 GPS SITE LG 150 0 ACCESS FT

DATE 2008 08 05 TIME 1420 AGENCY COI6 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd — GRADIENT %

CHANNEL WIDTH (m)

WETTED WIDTH (m)

RES. POOL DEPTH (m)

W_b Dp (m) STAGE L M H — No Vis. Ch. DW — Dry/Int. Tribs.

COVER Total

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

LWD FNC N F A DIST C E INSTREAM VEG N A M V

LB SHP U V S O RB SHP U V S O

TEXTURE F G C B R A TEXTURE F G C B R A

RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W

STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

EMS TEMP C REQ. # COND. S/cm pH TURB. T M L C

FLD SNS

BED MATERIAL Dominant Subdom. D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(88)

HABITAT QUALITY: NFH

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1002	ST	U	Brok

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Some short scoured chan bed sections with few gravels exposed discontinuous & not a stream

Drains not as mapped on TRIM, No drainage beyond last GPS pt on 115

NCD

(89)

SITE CARD

STREAM NAME (gaz.) BLK A84D80 (local) David crk trib

WATERSHED CODE 460 7 7 8 0 0 0 7 6 0 0 2

ILP MAP # ILP # 08001 NID MAP # NID #

REACH # 1 D SITE # 34 FIELD UTM 9 665598 6052213 GPS SITE LG 500 0 ACCESS FT

DATE 2008 08 06 TIME 0910 AGENCY COI6 CREW MJ DJ FISH FORM (Y) N

CHANNEL mthd — GRADIENT %

CHANNEL WIDTH (m) T 1.9 2.1 1.7 2.0 2.0 1.8

WETTED WIDTH (m) T 0.5 0.6 1.3 1.2 0.9 0.7

RES. POOL DEPTH (m) MS 0.21 0.44

W_b Dp (m) 0.4 0.4 0.5 0.5 STAGE L M H — No Vis. Ch. DW — Dry/Int. Tribs.

COVER Total T (A)

	SWD	LWD	B	U	DP	OV	IV
Type	S	S	D	T	T	T	T
AMT	P	P	P	P	P	P	P
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 (3) 4 5

LWD FNC N F (A) DIST C (E) INSTREAM VEG N A (M) V

LB SHP U (V) S O RB SHP U (V) S O

TEXTURE (F) G C B R A TEXTURE (F) G C B R A

RIP. VEG. N G S (C) D M W RIP. VEG. N G S (C) D M W

STAGE INIT SHR PS (YF) MF NA STAGE INIT SHR PS (YF) MF NA

EMS TEMP 8 C (8) REQ. # COND. 60 S/cm (54) pH TURB. T M L (O) (616) FLD SNS N

BED MATERIAL Dominant C Subdom. B D95 (cm) 20 D (cm) 4 Morph. RP

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST

ISLANDS (N) O I F S AN

BARS (N) SIDE DIAG MID SPAN BR

COUPLING DC (PC) CO

CONFINEMENT EN CO (FC) OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(90)

HABITAT QUALITY: R - G @ MF, indicates seasonality (filling surface on pools)

S - N - no suitable gravels observed except small patches within 70m section near mouth

D - N - likely dries out, some pool may be wetted but will freeze up.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1003	ST	U	Brok
D16	1004	ST	D	Brok

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: CW = 1.9, 2.1, 1.7, 2.0, 2.0, 1.8

WW = 0.5, 0.6, 1.3, 1.2, 0.9, 0.7

WD = 0.43, 0.47, 0.49, 0.41, 0.54, 0.46

Xing UTM 9, 665944, 6052476.

Stream with potentially useable hab @ MF. LWM count indicates seasonality, RBs immobile

C: continued in Johnny David C @ conf

No barriers impeding access

Dim mouth & xing - usage limited but availability of better & perm hab in perenn str.

(53)

(91)

COMBINED FISH COLLECTION

GAZETTED NAME: BLK A84080 (local) ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE: 460771800076092
WATERBODY ID: ILP MAP #: ILP # 08001 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID: REACH #: FISH PERMIT # SM08-45742
DATE: 20080806 to AGENCY: CO16 CREW: MJ, DT ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
34			9 655981052213 GPS	EF, 1	8	60	C	
3445			11 11 11	EF, 1	12	143	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
34	EF 1 1	1	NFC			0				
3445	EF 1 1	1	RB			2	73	149	R	

GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAR.

92

C.	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	34	EF 1 1	1	0940	1015	184	500	1	0	500	80	6	SR	1213
	3445	EF 1 1	1	1017	1017	6	2	2	0	400	80	6	SR	1213

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
1	3445	EF 1 1	1	RB	149											R__ F__
1	3445	EF 1 1	1	RB	73											R__ F__

1 Immediately captured in Jenny David C u/s of conf.

93

SITE CARD

STREAM NAME (gaz.): BLK A84081 (local):
WATERSHED CODE:
ILP MAP #: ILP # 08101 NID MAP #: NID #:
REACH # 2 D SITE # 35 FIELD UTM: 9 611047 6009826 83 SITE LG: 150.0 ACCESS: FT
DATE 20080806 TIME 1450 AGENCY: CO16 CREW: MJ DT FISH FORM: Y (N)

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE 0 1 (1-20%) 2 (21-40%) 3 (41-70%) 4 (71-90%) 5 (>90%)
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

GRADIENT %

WATER
EMS
TEMP C
pH
REQ. #
COND. S/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY
DISTURBANCE INDICATORS: 01 (bkwdsm) B1 (aban ch) B2 (erdbk) B3 (anvl) D1 (SWD) D2 (LWD) D3 (jam); C1 (ex inf) C2 (no pt) C3 (elev br) C4 (mult ch) C5 (dis line) S1 (horn bd) S2 (finger) S3 (sg edg) S4 (ex bar) S5 (ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

94

HABITAT QUALITY: NFH - seepage through swale/valley bottom, no scoured channel bed, just water collection mud puddles, not a stream

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1005	ST	D	Book
-11-	1006	ST	S	no scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Confirmation note left on white ribbon

NCD

95

SITE CARD

STREAM NAME (gaz.): A84077 (local):
WATERSHED CODE:
ILP MAP #: ILP # 7701 NID MAP #: NID #:
REACH # D SITE # 36 FIELD UTM: 9 618782 6011541 GPS SITE LG: 225.0 ACCESS: FT
DATE 20080805 TIME 1615 AGENCY: CO16 CREW: MJ DT FISH FORM: Y (N)

CHANNEL mthd
CHANNEL WIDTH (m): T 1.1 1.7 1.4 1.3 1.6 1.3
WETTED WIDTH (m): T 0.0 0.1 0.1 0.2 0.2 0.1
RES. POOL DEPTH (m): MS 0.09 0.30 0.17
W_b Dp (m) 0.22 0.22 0.22 STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.

COVER Total T (T)
Type SWD LWD B U DP OV IV
AMT T N T N S D N
LOC P P P P
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE 0 1 (1-20%) 2 (21-40%) 3 (41-70%) 4 (71-90%) 5 (>90%)
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

GRADIENT %: A 13 15 12 17

WATER
EMS
TEMP 11 C
pH
REQ. #
COND. S/cm
TURB. T M L C
FLD SNS N
BED MATERIAL Dominant N Subdom. G
D95 (cm) 30 D (cm) 9 Morph. CP

MORPHOLOGY
DISTURBANCE INDICATORS: 01 (bkwdsm) B1 (aban ch) B2 (erdbk) B3 (anvl) D1 (SWD) D2 (LWD) D3 (jam); C1 (ex inf) C2 (no pt) C3 (elev br) C4 (mult ch) C5 (dis line) S1 (horn bd) S2 (finger) S3 (sg edg) S4 (ex bar) S5 (ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
		FSZ		90	P	R__ F__	Potential use by CT	9 618782 6011541 GPS
						R__ F__		
						R__ F__		
						R__ F__		

96

HABITAT QUALITY: R - very poor - likely limited to lower 30-40m (P) higher flow in early summer when HW recedes. As UBC inhabited by ET - use gulo possible D/H opportunistic mistake of CT ? S - N D - N

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1007	ST	U	Book
DIG	1008	ST	U	-11-

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Not sampled - reason Barely flows
Xing pt 121 9 618782 6011762
lower % near L 5,6

C:

97

FSZ (S4) / S6 @ xing

SITE CARD

STREAM NAME (gaz.): BLK A84072 (local):
WATERSHED CODE: 1810374020795800838000394.0
ILP MAP # ILP # 07201 NID MAP # NID #:
REACH # 2 D SITE # 37 FIELD UTM: 9 679355 5990919 GPS SITE LG: 300.0 ACCESS: FT
DATE 20080807 TIME 0845 AGENCY: CO16 CREW: MJ DT FISH FORM: Y (N)

CHANNEL mthd
CHANNEL WIDTH (m): T 1.9 1.6 1.4 1.8 1.7 1.9
WETTED WIDTH (m): T 1.0 0.7 0.5 0.9 1.1 0.9
RES. POOL DEPTH (m): MS 0.22 0.14
W_b Dp (m) 0.3 0.2 0.3 0.3 STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.

COVER Total A
Type SWD LWD B U DP OV IV
AMT T T N T T D S
LOC P P P P P P
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE 0 1 2 3 4 5
INSTREAM VEG N A D V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

GRADIENT %: A 2 0.5 0.5

WATER
EMS
TEMP 12 C 13
pH
REQ. #
COND. 10 S/cm 54
TURB. T M D C 62
FLD SNS N
BED MATERIAL Dominant F Subdom. G
D95 (cm) 17 D (cm) 3 Morph. PP

MORPHOLOGY
DISTURBANCE INDICATORS: 01 (bkwdsm) B1 (aban ch) B2 (erdbk) B3 (anvl) D1 (SWD) D2 (LWD) D3 (jam); C1 (ex inf) C2 (no pt) C3 (elev br) C4 (mult ch) C5 (dis line) S1 (horn bd) S2 (finger) S3 (sg edg) S4 (ex bar) S5 (ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DK PC CO
CONFINEMENT EN CO FC UN UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

98

HABITAT QUALITY: NFH - HSD sampled on numerous occasions - Fish never caught, Cordata L & Cordata pond v. shallow, do not provide overwintering hab str. has no S or D also too shallow for D. Tac fac from Francois L. Cordata & exhibits signs of seasonal flows in reaches u/s of lake

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1010	ST	D	Book
-11-	1011	ST	BD	-11-

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C:

C:

S6

99

COMBINED FISH COLLECTION

GAZETTED NAME: BLK A 84072 (local) ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID | ILP MAP # | ILP # 57201 | SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID | REACH # 2 | FISH PERMIT # SM08-45742
DATE 20 08 08 07 to | AGENCY C016 | CREW MJ, DJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
37			9 679355 5990919 GPS	EF 1	12	70	L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
37	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(100)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	37	EF 1	1	0850	0920	170	200	1	0	400	80	6	SR	123

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

(101)

SITE CARD

STREAM NAME (gaz.) | (local) BLK BLFH_08_BL
WATERSHED CODE
ILP MAP # | ILP # 40033 | NID MAP # | NID #
REACH # 1 D | SITE # 38 | FIELD UTM 9 688319 6025590 GPS | SITE LG 200 0 | ACCESS FT
DATE 20 08 08 08 | TIME 1 0 0 0 | AGENCY C016 | CREW MJ, DJ | FISH FORM Y

CHANNEL (mthd)
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) | STAGE L M H | No Vis. Ch. DW | Dry/Int. Tribs.

GRADIENT %

COVER — Total
Type: SWD | LWD | B | U | DP | OV | IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 1 2 3 4 5
LWD FNC: N F A | DIST: C E
INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W | RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA

WATER
EMS | REQ. #
TEMP C | COND. S/cm
pH | TURB. T M L C
FLD SNS
BED MATERIAL Dominant | Subdom.
D95 (cm) | D (cm) | Morph.

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(102)

HABITAT QUALITY
NFH - flows through older yeaton with intermittent scoured channel, thruing sperse * disconnitinous. Not a stream

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1012	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Verified present stream ILP 30032 in AI confirmed stream SG
NCD

(103)

SITE CARD

STREAM NAME (gaz.) | (local) BLK BLFH_08_BL
WATERSHED CODE
ILP MAP # 3 | ILP # 40039 | NID MAP # | NID #
REACH # 3 D | SITE # 39 | FIELD UTM 9 688560 6025549 GPS | SITE LG 150 0 | ACCESS FT
DATE 20 08 08 08 | TIME 1 1 0 0 | AGENCY C016 | CREW MJ, DJ | FISH FORM Y

CHANNEL (mthd)
CHANNEL WIDTH (m): T 1.4 1.7 1.5 1.1 1.3 1.4
WETTED WIDTH (m): T 0 1.3 0.8 0.7 0.4 0.2
RES. POOL DEPTH (m): M 0.12
W_b Dp (m): 0.15 0.15 0.1 0.1 | STAGE L M H | No Vis. Ch. DW | Dry/Int. Tribs.

GRADIENT %: AL 4 5 1

COVER — Total: A
Type: SWD | LWD | B | U | DP | OV | IV
AMT: S T T N T D N
LOC: P P P P P P
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 1 2 3 4 5
LWD FNC: N P A | DIST: C P
INSTREAM VEG: N A M V
LB SHP: U P S O | RB SHP: U P S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP. VEG.: N G C D M W | RIP. VEG.: N G C D M W
STAGE: INIT SHR PS YF MF | STAGE: INIT SHR PS YF MF

WATER
EMS | REQ. #
TEMP 12 C T | COND. — S/cm
pH | TURB. T M L VL E
FLD SNS: N
BED MATERIAL Dominant: G | Subdom.: C
D95 (cm): 13 | D (cm): 4 | Morph.: RP

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(104)

HABITAT QUALITY
NFH - System documented NFB through terminous sampling in the past. Visited to verify Rip classification

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1013	ST	U	Book
D16	1014	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: site = UTM = N40 m @ BR6020° from HUB4
Becomes NCD @ UTM 9.688581. 6025496.
SG/NCD

(105)

SITE CARD

STREAM NAME (gaz.) | (local) BLK BLFH_08_BD
WATERSHED CODE
ILP MAP # | ILP # | NID MAP # | NID #
REACH # 1 D | SITE # 40 | FIELD UTM 9 691799 6024704 GPS | SITE LG 300 0 | ACCESS VH
DATE 20 08 08 08 | TIME 1 0 4 0 | AGENCY C016 | CREW MJ, DJ | FISH FORM Y

CHANNEL (mthd)
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) | STAGE L M H | No Vis. Ch. DW | Dry/Int. Tribs.

GRADIENT %

COVER — Total
Type: SWD | LWD | B | U | DP | OV | IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 1 2 3 4 5
LWD FNC: N F A | DIST: C E
INSTREAM VEG: N A M V
LB SHP: U V S O | RB SHP: U V S O
TEXTURE: F G C B R A | TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W | RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA | STAGE: INIT SHR PS YF MF NA

WATER
EMS | REQ. #
TEMP 17 C T | COND. S/cm
pH | TURB. T M L C
FLD SNS
BED MATERIAL Dominant | Subdom.
D95 (cm) | D (cm) | Morph.

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(106)

HABITAT QUALITY
NFH - flows through barely defined channel (~40 cm wide) within lower 200 m of wetland, no channel at all in upper end.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1015	ST	X	Book
↓	1016	↓	BD	—"—
↓	1017	↓	U	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
NCD/W1

(107)

SITE CARD

STREAM NAME - (gaz.) BLK DS~BP (local)
WATERSHED CODE
ILP MAP # ILP # 40506 NID MAP # NID #
REACH # 3 D SITE # 41 FIELD UTM 9 693844 6024446 GP3 SITE LG 300 O ACCESS W
DATE 20080808 TIME 1430 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd
CHANNEL WIDTH (m) T 0.8 0.9 0.9 1.0 0.8 0.5
WETTED WIDTH (m) T 0.4 0.3 0.6 0.4 0.4 0.4
RES. POOL DEPTH (m) 0.3 0.2
W_b Dp (m) 0.3 0.25 0.18 STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.

GRADIENT % AL 9 5 6

EMS REQ. #
TEMP 11 C 73 COND. S/cm
pH TURB. T M L (D) GP
FLD SNS N
BED MATERIAL Dominant C Subdom. G
D95 (cm) 21 D (cm) 5 Morph. CP

COVER Total 4
Type SWD LWD B U DP OV IV
AMT S T T S M D N
LOC C C C C D

CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100%
0 1 2 (3) 4 5

DISTURBANCE INDICATORS
ex vit | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd sm
O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N (E) A DIST C (E)
INSTREAM VEG (N) A M V
LB SHP (U) V S O
RB SHP U (V) S O
TEXTURE (F) G C B R A
TEXTURE F G C B R A
RIP. VEG. N G S (C) D M W
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF (NA)
STAGE INIT SHR PS YF MF NA

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC PC (CO)
CONFINEMENT EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			FB			R F (109)	Stream disperses in the forest floor	9 693844 6024446
						R F		
						R F		
						R F		

NFH - no access to fish, stream disperses before reaching any other waterbody, moderately steep would not provide fish habitat anyway
No R, S or D.

HABITAT QUALITY

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1018	ST	U	Book
D16	1019	ST	D	book
D16	1020	ST	X	book - diversion point

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C (109) UTM 9.693891.6024449. channel diverted by v.old road C NCD/S6

(109)

SITE CARD

STREAM NAME - (gaz.) (local) BLK BLFH_08_BP
WATERSHED CODE
ILP MAP # ILP # 40506 NID MAP # NID #
REACH # 1 D SITE # 42 FIELD UTM 9 693089 6024831 GP3 SITE LG 130 O ACCESS FT
DATE 20080808 TIME 1210 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd
CHANNEL WIDTH (m) GE 0.8 0.6
WETTED WIDTH (m) GE 0.1 0.0
RES. POOL DEPTH (m) GE 0
W_b Dp (m) 0.3 GE STAGE (L) M H No Vis. Ch. DW Dry/Int. Tribs.

GRADIENT % AL 10

EMS REQ. #
TEMP 12 C 73 COND. 70 S/cm 54
pH TURB. T M L (S)
FLD SNS N
BED MATERIAL Dominant C Subdom. B
D95 (cm) 40 D (cm) 5 Morph. CP

COVER Total (4) T
Type SWD LWD B U DP OV IV
AMT T T S D T S T
LOC C C C C (A) C

CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100%
0 1 (2) 3 4 5

DISTURBANCE INDICATORS
ex vit | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd sm
O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N (E) A DIST (C) D
INSTREAM VEG N A (M) V
LB SHP (U) V S O
RB SHP (U) V S O
TEXTURE (F) G C B R A
TEXTURE (F) G C B R A
RIP. VEG. N G S (C) D M W
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF (MF) NA
STAGE INIT SHR PS YF (MF) NA

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC PC (CO)
CONFINEMENT EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(110)

NFH - boundertine stream/NCD - almost dry - too shallow to sample - moderately steep - too tiny to provide even seasonal habitat for FB
↓ Second visit (FINS2001)

HABITAT QUALITY

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				NO photos - revisited

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Becomes NCD @ UTM 9.693060.6024727 C S6/NCD

(111)

SITE CARD

STREAM NAME - (gaz.) (local) BLK BLFH_08_BP
WATERSHED CODE
ILP MAP # ILP # 40103 NID MAP # NID #
REACH # 1 D SITE # 43 FIELD UTM 9 693231 6024929 GP3 SITE LG 150 O ACCESS FT
DATE 20080808 TIME 1330 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.

GRADIENT %

EMS REQ. #
TEMP C COND. S/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100%
0 1 2 3 4 5

DISTURBANCE INDICATORS
ex vit | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd sm
O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
STAGE INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(112)

NFH - barely any signs of flow near "mouth" - just wet area through pulls ; ch 40 m w/s through horsetail / twinberry / willow

HABITAT QUALITY

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1021	ST	BD	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C C NCD

(113)

SITE CARD

STREAM NAME - (gaz.) (local) BLK BLFH_08_BW
WATERSHED CODE
ILP MAP # ILP # 40108 NID MAP # NID #
REACH # 2 D SITE # 44 FIELD UTM 9 694204 6025879 GP3 SITE LG 600 O ACCESS FT
DATE 20080808 TIME 0910 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.

GRADIENT %

EMS REQ. #
TEMP C COND. S/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100%
0 1 2 3 4 5

DISTURBANCE INDICATORS
ex vit | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd sm
O1 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
STAGE INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(114)

NFH - seasonal water collection pond with no outlet → no connection to FB strm. seepage drains in this pond from swampy area in the forest. NO seasonal channel bed or flow.

HABITAT QUALITY

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1022	ST	X	Dup - seasonal water collection pond
-1-	1023	ST	U	B306

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C NO any kind of drainage from / d/s of pond - just dry gully C NCD

(115)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_BW/FBT
WATERSHED CODE
ILP MAP # ILP # 40501 NID MAP # NID #
REACH # 2 D SITE # 45 FIELD UTM 9 693890 6025949 GP3 SITE LG 400 0 ACCESS FT
DATE 2008 08 09 TIME 0930 AGENCY COI6 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H (No Vis. Ch. DW) (Dry/Int. Tribs.) | FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC | CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% = 0 1 2 3 4 5
LWD FNC N F A DIST C E | INSTREAM VEG N A M V
LB SHP U V S O | RB SHP U V S O
TEXTURE F G C B R A | TEXTURE F G C B R A
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

MORPHOLOGY: DISTURBANCE INDICATORS (beaudam abandch embbk avul SWD LWD jam) O1 B1 B2 B3 D1 D2 D3 | (ex rf ex pl elev br mult ch dis line horz bd finger lg wdg ex bar ex bd scr) C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

(116)

HABITAT QUALITY: NFH - verified 1986 findings of AJA, strm descends to FB percent over 22% slope for 15m + inaccessible to RS & contains non-suitable HB hab beyond. Becomes NCD @ ~~mth~~ site NFH.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1025	SS	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C

S6/NCD

(117)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_BW
WATERSHED CODE
ILP MAP # ILP # 40106 NID MAP # NID #
REACH # 1 D SITE # 46 FIELD UTM 9 693778 6026068 GP3 SITE LG 150 0 ACCESS FT
DATE 2008 08 09 TIME 1145 AGENCY COI6 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H (No Vis. Ch. DW) (Dry/Int. Tribs.) | FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC | CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% = 0 1 2 3 4 5
LWD FNC N F A DIST C E | INSTREAM VEG N A M V
LB SHP U V S O | RB SHP U V S O
TEXTURE F G C B R A | TEXTURE F G C B R A
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

MORPHOLOGY: DISTURBANCE INDICATORS (beaudam abandch embbk avul SWD LWD jam) O1 B1 B2 B3 D1 D2 D3 | (ex rf ex pl elev br mult ch dis line horz bd finger lg wdg ex bar ex bd scr) C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

(118)

HABITAT QUALITY: NFH

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1026	SS	BD	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C Wetlandish area ~ 40x20m fed by seepage through swale | C

NCD

(119)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_BW
WATERSHED CODE
ILP MAP # ILP # 40107 NID MAP # NID #
REACH # 1 D SITE # 47 FIELD UTM 9 693876 6026326 GP3 SITE LG 150 0 ACCESS FT
DATE 2008 08 09 TIME 1210 AGENCY COI6 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H (No Vis. Ch. DW) (Dry/Int. Tribs.) | FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC | CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% = 0 1 2 3 4 5
LWD FNC N F A DIST C E | INSTREAM VEG N A M V
LB SHP U V S O | RB SHP U V S O
TEXTURE F G C B R A | TEXTURE F G C B R A
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

MORPHOLOGY: DISTURBANCE INDICATORS (beaudam abandch embbk avul SWD LWD jam) O1 B1 B2 B3 D1 D2 D3 | (ex rf ex pl elev br mult ch dis line horz bd finger lg wdg ex bar ex bd scr) C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

(120)

HABITAT QUALITY: NFH - drainage with intermittent seasonal channel bed through gentle gully

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1027	SS	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C

NCD

(121)

SITE CARD

STREAM NAME (gaz.) (local)
WATERSHED CODE
ILP MAP # ILP # 40105 NID MAP # NID #
REACH # 1 D SITE # 48 FIELD UTM 9 693974 6026359 GP3 SITE LG 150 0 ACCESS FT
DATE 2008 08 09 TIME 1240 AGENCY COI6 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H (No Vis. Ch. DW) (Dry/Int. Tribs.) | FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC | CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% = 0 1 2 3 4 5
LWD FNC N F A DIST C E | INSTREAM VEG N A M V
LB SHP U V S O | RB SHP U V S O
TEXTURE F G C B R A | TEXTURE F G C B R A
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA

MORPHOLOGY: DISTURBANCE INDICATORS (beaudam abandch embbk avul SWD LWD jam) O1 B1 B2 B3 D1 D2 D3 | (ex rf ex pl elev br mult ch dis line horz bd finger lg wdg ex bar ex bd scr) C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

(122)

HABITAT QUALITY: NFH - moist area through swale - drains to the bog d/s

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1028	SS	U	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C

NCD

(123)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_BW/BV/BS

WATERSHED CODE 180137400095200101900933017250

ILP MAP # ILP # NID MAP # NID #

REACH # 2 D SITE # 49 FIELD UTM 9 693623 6025886 GPS SITE LG 200 0 ACCESS FT

DATE 20080808 TIME 1330 AGENCY C016 CREW MJ, DJ FISH FORM Y (N)

CHANNEL mthd — GRADIENT % AL D

CHANNEL WIDTH (m) GE 4 — EMS — REQ. #

WETTED WIDTH (m) GE 3 — TEMP 16 C T3 — COND. 110 S/cm S4

RES. POOL DEPTH (m) GE 0 — pH — TURB. T M (O) C GE

W_Dp (m) 05 GE STAGE (D) M H — No Vis. Ch. DW — Dry/Int. Tribs.

FLD SNS N

COVER Total A — BED MATERIAL Dominant F — Subdom. NA

Type SWD LWD B U DP OV IV — D95 (cm) 01 — D (cm) 01 — Morph. LC

AMT N N N N S D

LOC O P

CROWN CLOSURE 0 (1) 2 3 4 5

DISTURBANCE INDICATORS (01) B1 B2 B3 D1 D2 D3 — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC (N) F A — DIST C E — INSTREAM VEG N (A) M V

PATTERN TM ME IM IR (SI) ST

LB SHP U V (S) O — RB SHP U V (S) O

ISLANDS N (O) I F S AN

TEXTURE (F) G C B R A — TEXTURE (F) G C B R A

BARS (N) SIDE DIAG MID SPAN BR

RIP. VEG. N G S C D M (W) — RIP. VEG. N G S C D M (W)

COUPLING (DC) PC CO

STAGE INIT SHR PS YF MF NA — STAGE INIT SHR PS YF MF NA

CONFINEMENT EN CO FC OC (UN) N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(124)

HABITAT QUALITY: No salmonid habitat — channel mucky, choked by ISV & algae, observed bubbles of methane coming from bottom → indication of decaying matter in anaerobic conditions. BW

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1031	ST	U	No scale
DIG	1032	ST	U	—"—

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Several BD's observed in 98 were bisected and RB moved u/s w/in steeper section of previously determined NFH section, however site UTM location marks EFH for RB as there is no suitable RB

C: habitat beyond: CWd/s = 1.7 %= 2, 3, 2, WB = 0.4 horizontal sampling revealed v abundant RB d/s of wetland.

55/53

(125)

COMBINED FISH COLLECTION

GAZETTED NAME BLK BLFH_08_BW/BV/BS (local) ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE 180137400095200101900933017250

WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☐ Y ☒ N

PROJECT ID REACH # 1 FISH PERMIT # SM08-45742

DATE 20080808 to AGENCY C016 CREW MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION TURB.	COMMENTS
1S(49)			9 693623 6025881 GPS	EF 1	15	110	C

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH CON.	COMMENTS
1S(49)	EF 1	1	RB	J		4	54	103	R	

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	1S(49)	EF 1	1	1325	1335	8	2	15	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
	1S(49)	EF 1	1	RB	54											R__ F__
					59											R__ F__
					55											R__ F__
					103											R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

1 sampled u/s bisected BD section — RB v. abundant many more observed

(127)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_BP

WATERSHED CODE

ILP MAP # ILP # 40505 NID MAP # NID #

REACH # 1 D SITE # 50 FIELD UTM 9 693919 6025312 GPS SITE LG 300 0 ACCESS FT

DATE 20080809 TIME 1420 AGENCY C016 CREW MJ, DJ FISH FORM Y (N)

CHANNEL mthd — GRADIENT % AL 2 4

CHANNEL WIDTH (m) 1.3 1.3 1.5 1.1 1.4 1.6 — EMS — REQ. #

WETTED WIDTH (m) — TEMP — C — COND. — S/cm

RES. POOL DEPTH (m) — pH — TURB. T M L C

W_Dp (m) 02 02 01 02 STAGE L M H — No Vis. Ch. DW — Dry/Int. Tribs.

FLD SNS N

COVER Total N (T) — BED MATERIAL Dominant G — Subdom. C

Type SWD LWD B U DP OV IV — D95 (cm) 10 — D (cm) 6 — Morph. RP

AMT N N N S N D N

LOC P P

CROWN CLOSURE 0 1 2 (3) 4 5

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC (N) F A — DIST C E — INSTREAM VEG (V) A M V

PATTERN TM ME IM IR (SI) ST

LB SHP U (V) S O — RB SHP U (V) S O

ISLANDS (N) O I F S AN

TEXTURE (F) G C B R A — TEXTURE (F) G C B R A

BARS (N) SIDE DIAG MID SPAN BR

RIP. VEG. N G (S) C D M W — RIP. VEG. N G (S) C D M W

COUPLING (UP) PC CO

STAGE INIT SHR PS YF (MF) NA — STAGE INIT SHR PS YF (MF) NA

CONFINEMENT EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(128)

HABITAT QUALITY: Very limited habitat only to early summer where MF Prefly, much no ISV, however may be utilized as migration route to better hab in R2, during wetter years. No obstructions up to falls (out of R2)

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1033	ST	U	Back
—"—	1034	ST	D	—"—

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

S4

(129)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_BP

WATERSHED CODE

ILP MAP # ILP # NID MAP # NID #

REACH # 1 D SITE # 51 FIELD UTM 9 693695 6025165 GPS SITE LG 200 0 ACCESS FT

DATE 20080809 TIME 1445 AGENCY C016 CREW MJ, DJ FISH FORM Y (N)

CHANNEL mthd — GRADIENT %

CHANNEL WIDTH (m) — EMS — REQ. #

WETTED WIDTH (m) — TEMP C — COND. S/cm

RES. POOL DEPTH (m) — pH — TURB. T M L C

W_Dp (m) STAGE L M H — No Vis. Ch. DW — Dry/Int. Tribs.

FLD SNS

COVER Total — BED MATERIAL Dominant — Subdom.

Type SWD LWD B U DP OV IV — D95 (cm) — D (cm) — Morph.

AMT

LOC

CROWN CLOSURE 0 1 2 3 4 5

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A — DIST C E — INSTREAM VEG N A M V

PATTERN TM ME IM IR SI ST

LB SHP U V S O — RB SHP U V S O

ISLANDS N O I F S AN

TEXTURE F G C B R A — TEXTURE F G C B R A

BARS N SIDE DIAG MID SPAN BR

RIP. VEG. N G S C D M W — RIP. VEG. N G S C D M W

COUPLING DC PC CO

STAGE INIT SHR PS YF MF NA — STAGE INIT SHR PS YF MF NA

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(130)

HABITAT QUALITY: NFH — seepage through ~20 m wide swale → no surface flow indications — seepage barely identifiable — better pronounced u/s in gully.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1035	ST	U	Back

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

NCD

(131)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_BN
WATERSHED CODE
ILP MAP # ILP # 40101 NID MAP # NID #
REACH # 1 D SITE # 52 FIELD UTM 9 691724 6027260 GPS SITE LG 300 | 0 ACCESS FT
DATE 20080821 TIME 1400 AGENCY CO16 CREW MJ JJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs. | BED MATERIAL Dominant Subdom. | D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS 01 (bioturbation, abandoned channel, embeddedness, anvil, SWD, LWD, jam) B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 (ex ot, no pl, elev bv, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

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HABITAT QUALITY: NFH - seepage through swale vegetated by horsetail & willow. Located N 40 m north of mapped location

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1066	ST	X	No scale
DIC	1067	ST	X	"

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C: NFH (C)

(133)

SITE CARD

STREAM NAME (gaz.) (local) BLFU_08_BW
WATERSHED CODE
ILP MAP # ILP # 40102 NID MAP # NID #
REACH # 3 D SITE # 53 FIELD UTM 9 693002 6027596 GPS SITE LG 100 | GE ACCESS V4
DATE 20080821 TIME 1515 AGENCY CO16 CREW MJ JJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. # | WATER
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs. | BED MATERIAL Dominant Subdom. | D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS 01 (bioturbation, abandoned channel, embeddedness, anvil, SWD, LWD, jam) B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 (ex ot, no pl, elev bv, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

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HABITAT QUALITY: NFH - nothing - water collection yard @ the edge of forest with no drainage coming in (depression 1.5m x 8m) or going out. Drainage if it was is west of pg by very slo/ loading d/s of depression.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DG	1068	ST	D	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C: NA

(135)

SITE CARD

STREAM NAME (gaz.) (local) BLFU_08_BN
WATERSHED CODE 1 8 0 3 7 4 0 0 0 9 5 2 0 0 0 1 1 9 0 0 0 9 3 3 0 7 2 5 0
ILP MAP # ILP # NID MAP # NID #
REACH # 6 D SITE # 54 FIELD UTM 9 691750 6027044 GPS SITE LG 100 | 0 ACCESS FS
DATE 20080821 TIME 1615 AGENCY CO16 CREW MJ JJ FISH FORM Y (N)

CHANNEL mthd 1 1 | GRADIENT % AL | EMS | REQ. # | WATER
CHANNEL WIDTH (m) GE B 2.12 | TEMP 15 C T3 | COND. 150 S/cm 54
WETTED WIDTH (m) GE B 1.0 | 0 0.5 1 | pH | TURB. T (NW) L O VE
RES. POOL DEPTH (m) GE D | FLD SNS N
W_b Dp (m) 0.5 0.2 GE STAGE L (M) H No Vis. Ch. DW Dry/Int. Tribs. | BED MATERIAL Dominant F | Subdom. NA | D95 (cm) 0.1 D (cm) 0.1 Morph. LC

COVER: Total R
Type SWD LWD B U DP OV IV
AMT T N N N N D S
LOC 0 1 2 3 4 5
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% 90-100%
LWD FNC N F A DIST C E
LB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS 01 (bioturbation, abandoned channel, embeddedness, anvil, SWD, LWD, jam) B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 (ex ot, no pl, elev bv, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(136)

HABITAT QUALITY: No salmonid habitat - stream dewed by many BD with flooded valley channels offsets with water stagnant & velocity flowing thick org debris on the bottom

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1069	ST	X	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C: Only 1 CW measured - rest inaccessible - swampy
C: 56

(137)

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLFU_08_BN ☐ LAKE ☐ STREAM ☐ WETLAND
WATERSHED CODE 1 8 0 3 7 4 0 0 0 9 5 2 0 0 0 1 1 9 0 0 0 9 3 3 0 7 2 5 0
WATERBODY ID | ILP MAP # | ILP # | SITE/LAKE CARD ATTACHED ☐ Y ☐ N
PROJECT ID | REACH # 6 | FISH PERMIT # SM08-45742
DATE 20080821 to | AGENCY CO16 CREW MJ JJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
54			9 691750 6027044 GPS	EFI 1	15	150	14	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
54	EFI 1	)	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	54	EFI 1	1	1610	1630	137	100	1	0	300	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R F
																R F
																R F
																R F
																R F
																R F
																R F
																R F
																R F
																R F

Sampled only short sections where were channelized d/s of numerous BD's.

(139)

SITE CARD

STREAM NAME (gaz.) (local) BLFH_OR_BM
WATERSHED CODE
ILP MAP # ILP # 40504 NID MAP # NID #
REACH # 1 D SITE # 55 FIELD UTM 9 694866 6025085 GPS SITE LG 400 D ACCESS FT
DATE 20080822 TIME 0915 AGENCY CO16 CREW MJ DJ FISH FORM D N

CHANNEL mthd

								GRADIENT %
CHANNEL WIDTH (m)	T	2.7	2.9	2.5	1.7	2.8		AL
WETTED WIDTH (m)	T	2.6	2.4	0.8	0.9	1.1	1.6	5 7.5
RES. POOL DEPTH (m)	MS	0.18	0.13	0.32	0.21	0.20	0.34	7 7
W_b Dp (m)	0.3	0.3	0.36	0.4	STAGE D M H	No Vis. Ch. DW	Dry/Int. Tribs.	

EMS REQ. #
TEMP 10 C T3 COND. 110 S/cm S4
pH TURB. T M D C GE
FLD SNS N
BED MATERIAL Dominant C Subdom. B
D95 (cm) 60 D (cm) 11 Morph. CP
DISTURBANCE INDICATORS O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR ST
ISLANDS N D I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC BD
CONFINEMENT EN CO FC OC UN N/A

COVER Total T (M)

	Type	SWD	LWD	B	U	DP	OV	IV
AMT		T	T	D	T	S	S	T
LOC		P	P	P	C	A	P	P

CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% — 0 1 2 3 4 5

LWD FNC N D A DIST C E INSTREAM VEG N A M V
LB SHP U D S O RB SHP U D S O
TEXTURE F G D R A TEXTURE F G C B R A
RIP. VEG. N G S D M W RIP. VEG. N G S D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(140)

HABITAT QUALITY: R - F - pools are not frequent average ~ 32 m, LD boulder pools
S - only one section (~ 50 m) contained suitable habitat
D - none - too shallow

FSZ

PHOTO DOCUMENTATION	ROLL #	#	FOC LG	DIR	COMMENTS
	DIG	1070	ST	U	Book
	DIG	1073	ST	D	Book

WILDLIFE	GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C — Mismapped stream channel to different drainage than what map indicates. V. big - must add connected to 56

(141)

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLFH_OR_BM ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 40504 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 1 FISH PERMIT # SM08-45742
DATE 20080822 to AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
55			9 694866 6025085 GPS	EF 1	10	110	L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
55	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	55	EF 1	1	0915	1030	158	400	1.0	0	400	80	6	SR	128

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

(143)

SITE CARD

STREAM NAME (gaz.) (local) Blk BLFH_OR_BM
WATERSHED CODE
ILP MAP # ILP # 40503 NID MAP # NID #
REACH # 2 D SITE # 56 FIELD UTM 9 694664 6025188 GPS SITE LG 200 D ACCESS FT
DATE 20080822 TIME 1100 AGENCY CO16 CREW MJ DJ FISH FORM D N

CHANNEL mthd

								GRADIENT %
CHANNEL WIDTH (m)	T	3.0	3.2	2.6	3.7	3.5	3.4	AL
WETTED WIDTH (m)	T	2.8	1.4	2.6	1.5	1.8	0.9	4.5 3
RES. POOL DEPTH (m)	MS	0.42	0.27	0.22	0.59			4.2
W_b Dp (m)	0.75	0.45	0.45	0.45	STAGE D M H	No Vis. Ch. DW	Dry/Int. Tribs.	

EMS REQ. #
TEMP 10 C T3 COND. 120 S/cm
pH TURB. T M D C GE
FLD SNS None
BED MATERIAL Dominant C Subdom. R
D95 (cm) 400 D (cm) 18 Morph. CP
DISTURBANCE INDICATORS O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR ST ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC BD
CONFINEMENT EN CO FC OC UN N/A

COVER Total A

	Type	SWD	LWD	B	U	DP	OV	IV
AMT		T	T	D	N	S	T	T
LOC		P	C		P	P	P	

CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% — 0 1 2 3 4 5

LWD FNC N D A DIST C E INSTREAM VEG N A M V
LB SHP U D S O RB SHP U D S O
TEXTURE F G D B R A TEXTURE F G D B R A
RIP. VEG. N G S D D M W RIP. VEG. N G S D D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			F	2	10	R__ F1	Impassable barrier	9 694664 6025188 GPS
						R__ F__		
						R__ F__		
						R__ F__		

(144)

HABITAT QUALITY: R - G - good cover among B/P
S - None
D - Some suitable pools present
System would be able to support RB population but is inaccessible d/t falls barrier @ the start of reach 2

FSZ

PHOTO DOCUMENTATION	ROLL #	#	FOC LG	DIR	COMMENTS
	DIG	1074	ST	U	Book
	DIG	1075	ST	D	Book

WILDLIFE	GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C — Changes classification to SG @ conf with ILP 40504

55/56

(145)

COMBINED FISH COLLECTION

GAZETTED NAME Blk (local) BLFH_OR_BM ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 40503 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 2 FISH PERMIT # SM08-45742
DATE 20080822 to AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
56			9 694664 6025188 GPS	EF 1	10	120	L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
56	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	56	EF 1	1	1100	1130	272	200	2	0	400	80	6	SR	128

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

(147)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_BM

WATERSHED CODE

ILP MAP # ILP # 40503 NID MAP # NID #

REACH # 1 D SITE # 57 FIELD UTM 9 694575 6025165 GPS SITE LG 100 0 ACCESS FT

DATE 2 09 08 22 TIME 12 15 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)	T	2.2	2.0	2.1	2.4	2.2	2.0	
WETTED WIDTH (m)	T	1.1	1.4	0.8	1.4	1.0	0.8	
RES. POOL DEPTH (m)	M	3	0.6	0.9				
W_b Dp (m)	0.3	0.4	0.4	0.4	STAGE L M H			

GRADIENT %: AL 2 2 3 3

EMS REQ. #

TEMP 10 C T3 COND. 130 S/cm S4

pH TURB. T M L C SE

FLD SNS N

BED MATERIAL Dominant G Subdom. C

D95 (cm) 35 D (cm) 6 Morph. RF

COVER Total T (4)

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	T	D	T	S	N
LOC	C	C	C	C	C	C	C

CROWN CLOSURE: 0 1 2 3 (4) 5

LWD FNC N (D) A DIST C (E) INSTREAM VEG (SP) A M V

LB SHP U (V) S O RB SHP (U) V S O

TEXTURE (F) G C B R A TEXTURE (F) G C B R A

RIP. VEG. N G (S) C D M W RIP. VEG. N G (S) C D M W

STAGE INIT SHR PS YF MF (NA) STAGE INIT SHR PS YF MF (NA)

MORPHOLOGY

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST

ISLANDS (N) O I F S AN

BARS N SIDE DIAG (MID) SPAN BR

COUPLING (DC) PC CO

CONFINEMENT (EN) CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(152)

HABITAT QUALITY: R- Poor @ LF, stm shallow with v. poor usable cover
S- Gravels abundant, would have good holding
D- none,
Stream inaccessible d/t falls barrier

WATER

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1080	ST	U	Book
DIG	1081	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: 56

(153)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_BM

WATERSHED CODE

ILP MAP # 31200

REACH # 4 D SITE # 59 FIELD UTM 10 706325 6024789 GPS SITE LG 100 0 ACCESS FT

DATE 2 09 08 22 TIME 1 52 5 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)

WETTED WIDTH (m)

RES. POOL DEPTH (m)

W_b Dp (m) STAGE L M H

GRADIENT %

EMS REQ. #

TEMP C COND. S/cm

pH TURB. T M L C

FLD SNS

BED MATERIAL Dominant Subdom.

D95 (cm) D (cm) Morph.

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 1 2 3 4 5

LWD FNC N F A DIST C E INSTREAM VEG N A M V

LB SHP U V S O RB SHP U V S O

TEXTURE F G C B R A TEXTURE F G C B R A

RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W

STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(154)

HABITAT QUALITY: NFH- not a stream, doesn't have continuous scoured channel bed or flowing. Peters out @ site UTM.

WATER

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1084	ST	U	Book
DIG	1085	ST	BD	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: NCD

(155)

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08_BM ☒ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE

WATERBODY ID ILP MAP # ILP # 40503 SITE/LAKE CARD ATTACHED ☒ Y ☐ N

PROJECT ID REACH # 1 FISH PERMIT # SM08-45742

DATE 2 09 08 22 to AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION TURB	COMMENTS
57			9 694575 6025165 GPS	EF 1	10	100 L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
57	EF 1	1	RB	5		4	85	122	R	Immediately below falls

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAR.

(150)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	57	EF 1	1	1215	1215	4	2	4	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
	57	EF 1	1	RB	122											R F
					88											R F
					79											R F
					85											R F

(151)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_H
WATERSHED CODE 1 8 0 3 7 4 0 0 0 0 9 5 2 0 0 0 1 9 0 0 3 5 8 0 9 4 7 0
ILP MAP # ILP # NID MAP # NID #
REACH # 4 D SITE # 60 FIELD UTM 10 311100 6006129 683 SITE LG 150 0 ACCESS FT
DATE 2 0 0 8 0 8 2 3 TIME 1 1 4 5 AGENCY CO16 CREW MJ JJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

WATER
EMS REQ. #
TEMP C COND. S/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 (beavdam, aban ch, endbk, avul, SWD, LWD, jam) C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 (ex rif, no pl, elev br, mult ch, dis line, horn bd, finger, lg widg, ex bar, ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__

156

HABITAT QUALITY: NFH - seepage through spring ground, no defined channel bed or flowing - just isolated mucky pockets in swampy area.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1086	SF	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: NCD

157

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_L
WATERSHED CODE 1 8 0 3 7 4 0 0 0 9 5 2 0 0 0 1 9 0 0 3 5 8 0 8 9 2 0
ILP MAP # ILP # NID MAP # NID #
REACH # 2 D SITE # 61 FIELD UTM 9 313002 6004150 GPS SITE LG 150 0 ACCESS FT
DATE 2 0 0 8 0 8 2 3 TIME 1 2 3 0 AGENCY CO16 CREW MJ JJ FISH FORM D N

CHANNEL mthd
CHANNEL WIDTH (m) T 2.1 2.0 2.4 1.7 2.5 2.1 GRADIENT % AL
WETTED WIDTH (m) T 2.1 1.7 2.4 1.7 2.1 2.1 2 4
RES. POOL DEPTH (m) MSD 3.1 0.1 0.1 0.1 0.1 0.1 3.5 2.5
W_b Dp (m) 0.4 0.3 0.4 0.5 0.4 0.6 OV STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.

COVER Total A
Type SWD LWD B U DP OV IV
AMT T T S D S T T
LOC C C C C C C C
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

WATER
EMS REQ. #
TEMP 12 C T 3 COND. 90 S/cm 54
pH TURB. T M D C 66
FLD SNS N
BED MATERIAL Dominant C Subdom. G
D95 (cm) 35 D (cm) 7 Morph. RP

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 (beavdam, aban ch, endbk, avul, SWD, LWD, jam) C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 (ex rif, no pl, elev br, mult ch, dis line, horn bd, finger, lg widg, ex bar, ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__

158

HABITAT QUALITY: R - G - anoxity in CPB & some B
S - N - mixed substrate
D - N - too shallow
Habitat isolated by impassable falls in Tributary C.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1087	SF	U	Book
DIG	1088	SF	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: S6

159

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFU_08_L ☐ LAKE ☑ STREAM ☐ WETLAND
WATERSHED CODE 1 8 0 3 7 4 0 0 0 9 5 2 0 0 0 1 9 0 0 3 5 8 0 8 9 2 0
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 2 FISH PERMIT # SM08-45742
DATE 2 0 0 8 0 8 2 3 to AGENCY CO16 CREW MJ JJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON.	TURB.	COMMENTS
61			9 313002 6004150 GPS	EF 1	12	90	L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
61	EF 1	H	NFC			0				

GEAR SPECIFICATIONS
NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

160

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	61	EF 1	1	1230	1245	164	150	1.5	0	400	80	6	SR	1215

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

161

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_K
WATERSHED CODE
ILP MAP # ILP # 11215 NID MAP # NID #
REACH # 1 D SITE # 62 FIELD UTM 10 311106 6003695 GPS SITE LG 100 0 ACCESS FT
DATE 2 0 0 8 0 8 2 3 TIME 1 4 2 0 AGENCY CO16 CREW MJ DJ FISH FORM D N

CHANNEL mthd
CHANNEL WIDTH (m) T 0.6 0.9 0.9 0.6 0.6 0.7 GRADIENT % AL
WETTED WIDTH (m) T 0.6 0.9 0.9 0.6 0.6 0.7 8 4
RES. POOL DEPTH (m) MSD 0.1 0.1 0.4 3 2
W_b Dp (m) 0.1 0.2 STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.

COVER Total 4
Type SWD LWD B U DP OV IV
AMT T T N D S S N
LOC R R A R R
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% 0 1 2 3 4 5
LWD FNC N D A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

WATER
EMS REQ. #
TEMP 11 C 13 COND. 30 S/cm 54
pH TURB. T M L C. 46
FLD SNS N
BED MATERIAL Dominant F Subdom. G
D95 (cm) D (cm) Morph. DP

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 (beavdam, aban ch, endbk, avul, SWD, LWD, jam) C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 (ex rif, no pl, elev br, mult ch, dis line, horn bd, finger, lg widg, ex bar, ex bd sd)
PATTERN TM ME IM IR SI ST
ISLANDS W O I F S AN
BARS W SIDE DIAG MID SPAN BR
COUPLING OC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__

162

HABITAT QUALITY: No RB Lab - seems that originally mapped drainage has been altered → currently trickle is fed by road ditch runoff only during precipitation or during snowmelt. Stream likely exceeds tolerantable level of fines for RB to reproduce & grow seasonally.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1089	SF	U	Person - ditch drainage directed to the woods
↓	1090	↓	U	No scale - one of road cut seepages enters ditch
↓	1091	↓	U	Book - stream photo
↓	1092	↓	D	Book - ~ 4

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Ground flow diverted by road construction → directed into ditch → directed into stream. Original drainage mapped on DRM likely was a seepage but its previous location cannot be found. Road runoff

C: with exposed UBF creates stream. Low conductivity also indicates seasonality

S6

163

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK 2008_08_K ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID | ILP MAP # | ILP # 11215 | SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID | REACH # 1 | FISH PERMIT # SM08-45742
DATE 2008/08/23 to | AGENCY CO16 | CREW MJ JJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
62			10 311106 6003695 GPS	EF 1	11	30	M	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
62	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(164)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	62	EF 1	1	1435	1455	137	100	0.6	0	700	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

(165)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFL_08_K
WATERSHED CODE 180|3|7|4|9|9|9|9|5|2|9|9|6|6|5|9|9|2|3|9|0|5|9|6|9|
ILP MAP # | ILP # | NID MAP # | NID #
REACH # 4 D | SITE # 63 | FIELD UTM 10 | 311193 | 6003715 GPS | SITE LG 200.0 | ACCESS FT
DATE 2008/08/23 | TIME 1515 | AGENCY CO16 | CREW MJ JJ | FISH FORM Y ☒ N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) | STAGE L M H | No Vis. Ch. DW | Dry/Int. Tribs.

COVER Total
Type: SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%
LWD FNC: N E A | DIST: C E | INSTREAM VEG: N A M V
LB SHP: O V S O | RB SHP: O V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA

WATER
GRADIENT %
EMS | REQ. #
TEMP C | COND. S/cm
pH | TURB. T M L C
FLD SNS
BED MATERIAL Dominant | Subdom.
D95 (cm) | D (cm) | Morph.

MORPHOLOGY
DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

(166)

HABITAT QUALITY
No salmonid habitat - channel becomes disconnected @ site location - drainage puddles up occasionally and leaks fluvial material. Watered seasonally or during heavy precipitation.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1095	SF	X	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
NCD

(167)

SITE CARD

STREAM NAME (gaz.) (local) BLK 2008_08_K
WATERSHED CODE 180|3|7|4|9|9|9|5|2|9|9|6|6|5|9|9|2|3|9|0|5|9|6|9|
ILP MAP # | ILP # | NID MAP # | NID #
REACH # 3 D | SITE # 64 | FIELD UTM 10 | 310915 | 6003765 GPS | SITE LG 400.0 | ACCESS FT
DATE 2008/08/23 | TIME 1610 | AGENCY CO16 | CREW MJ JJ | FISH FORM ☒ N

CHANNEL mthd
CHANNEL WIDTH (m) T 1.1 1.2 1.0 1.1 1.3 1.2 | M
WETTED WIDTH (m) T 1.0 1.1 2.0 0.9 1.0 1.2 | 9 6
RES. POOL DEPTH (m) MS 0.23 0.14 | 5 6
W_b Dp (m) 0.31 0.28 0.27 0.24 | STAGE L (M) H | No Vis. Ch. DW | Dry/Int. Tribs.

COVER Total A
Type: SWD LWD B U DP OV IV
AMT T T S D T T
LOC P P C P P P
CROWN CLOSURE: 0 | 1-20% | 21-40% (2) | 41-70% | 71-90% | >90%
LWD FNC: N (E) A | DIST: C (E) | INSTREAM VEG: N A (M) V
LB SHP: (O) V S O | RB SHP: (O) V S O
TEXTURE: (F) G C B R A | TEXTURE: (F) G C B R A
RIP. VEG.: N G S (C) D M W | RIP. VEG.: N G S (C) D M W
STAGE: INIT SHR PS YF (MF) NA | STAGE: INIT SHR PS YF (MF) NA

WATER
GRADIENT %
EMS | REQ. #
TEMP 12 C (T) | COND. 30 S/cm (E)
pH | TURB. (M) L C (E)
FLD SNS N
BED MATERIAL Dominant C | Subdom. F
D95 (cm) 45. | D (cm) 6 | Morph. CT

MORPHOLOGY
DISTURBANCE INDICATORS: O1 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR (SI) ST
ISLANDS: (N) O I F S AN
BARS: (N) SIDE DIAG MID SPAN BR
COUPLING: DC (PC) CO
CONFINEMENT: EN CO (FC) OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

(168)

HABITAT QUALITY
Resampled stream - exhibits signs of seasonality (stain dirt on the bottom) - flow likely intermittent or dry during summer/fall. Watered during heavier precipitation. Stream fed by a few road runoffs - water murky → decrease likelihood of RB interaction. No SOO observed. Fish likely stays in mainstream → better habitat.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1096	SF	U	Book
D16	1097	SF	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
56

(169)

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK 2008_08_K ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 180|3|7|4|9|9|9|5|2|9|9|6|6|5|9|9|2|3|9|0|5|9|6|9|
WATERBODY ID | ILP MAP # | ILP # | SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID | REACH # 3 | FISH PERMIT # SM08-45742
DATE 2008/08/23 to | AGENCY CO16 | CREW MJ JJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
64			10 310915 6003765 GPS	EF 1	12	30	M	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
64	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	64	EF 1	1	1620	1650	352	400	1.2	0	700	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

(171)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K
WATERSHED CODE
ILP MAP # ILP # 11214 NID MAP # NID #
REACH # 1 D SITE # 65 FIELD UTM 10 310946 6002994 6P3 SITE LG 100 0 ACCESS V4
DATE 2010 08 23 TIME 1715 AGENCY C016 CREW MJ DJ FISH FORM Y

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %
EMS REQ. #
TEMP C COND. S/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% 0 1 2 3 4 5
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam, aban ch, endbk, avul, SWD, LWD, jam; B1 ex rf, no pt, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr; B2; B3; D1; D2; D3; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

172

HABITAT QUALITY: NFH - steep NCD from little ground - natural flow regime blocked by 2m high berm sloped b/n road & rd. - descends @ 37% for 10m with some isolated scour visible for ~50 m but disperses before reaching parent stream - currently fed by road runoff

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1098	↓	BD	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: NCD

173

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_K
WATERSHED CODE
ILP MAP # ILP # 11213 NID MAP # NID #
REACH # 1 D SITE # 66 FIELD UTM 10 311048 6002847 6P3 SITE LG 100 0 ACCESS FT
DATE 2010 08 24 TIME 1145 AGENCY C016 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT % AL 27.5
EMS REQ. #
TEMP C COND. S/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% 0 1 2 3 4 5
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam, aban ch, endbk, avul, SWD, LWD, jam; B1 ex rf, no pt, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr; B2; B3; D1; D2; D3; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

174

HABITAT QUALITY: NFH

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: No drainage present @ modified location or 100 m radius
Just dry 50m long gully with no signs of flowing water ever
C: NA

175

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_K
WATERSHED CODE 1 8 0 3 7 4 0 1 0 1 0 9 5 2 1 0 1 0 6 6 5 0 1 0 2 3 9 0 1 5 0 1 6 0 1 4 9 0
ILP MAP # ILP # 11018 NID MAP # NID #
REACH # 1 D SITE # 67 FIELD UTM 10 311058 6002626 6P3 SITE LG 140 0 ACCESS FT
DATE 2010 08 24 TIME 1215 AGENCY C016 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m) T 0.8 0.7 1.1 0.9 0.8 0.7
WETTED WIDTH (m) T 0.6 0.6 0.4 0.7 0.5 0.0
RES. POOL DEPTH (m) MS
W_b Dp (m) 0.15 0.15 STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT % AL 7 6 6 8
EMS REQ. #
TEMP 12 C T3 COND. S/cm
pH TURB. T M L C GP
FLD SNS N
BED MATERIAL Dominant G Subdom. C
D95 (cm) 25 D (cm) 7 Morph. CP

COVER Total T(M)
Type SWD LWD B U DP OV IV
AMT S T N S I D N
LOC P P P P P
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% 0 1 2 3 4 5
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam, aban ch, endbk, avul, SWD, LWD, jam; B1 ex rf, no pt, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr; B2; B3; D1; D2; D3; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

176

HABITAT QUALITY: NFH - seasonal & moderately steep trickle, watered only during spring runoff or heavy & prolonged freeze; V. poor ISC when watered too steep to provide refuge hab for RB during runoff. Second visit.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1099	↓	U	Book
DIG	1100	↓	D	-11-

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: NS d/t not sufficient depth.
C: S6

177

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K
WATERSHED CODE 1 8 0 3 7 4 0 1 0 1 0 9 5 2 1 0 1 0 6 6 5 0 1 0 2 3 9 0 1 5 0 1 6 0 1 4 9 0
ILP MAP # ILP # NID MAP # NID #
REACH # 2 D SITE # 68 FIELD UTM 10 311165 6002635 6P3 SITE LG 200 0 ACCESS FT
DATE 2010 08 24 TIME 1215 AGENCY C016 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %
EMS REQ. #
TEMP C COND. S/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% 0 1 2 3 4 5
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam, aban ch, endbk, avul, SWD, LWD, jam; B1 ex rf, no pt, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr; B2; B3; D1; D2; D3; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R F
R F
R F
R F

178

HABITAT QUALITY: NFH - becomes NCD @ site location - no continuous scour or fluvium beyond this point

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
916	1101	↓	BD	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: only isolated scour w/in 40 m from site then again with surface flow & isolated small pockets, more scoured sections past 150 m from site UTM
C: @ pt 133 - RB NCD @ BRG 196°
C: NCD

179

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K
WATERSHED CODE
ILP MAP # ILP # 11212 NID MAP # NID #
REACH # 1 D SITE # 69 FIELD UTM 10 311500 6002691 6P3 SITE LG 150 0 ACCESS FT
DATE 2 0 0 8 0 8 2 4 TIME 1 3 1 5 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. #
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H (No Vis. Ch. DW) (Dry/Int. Tribs.) | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: headcuts | abun ch | embrk | anvil | SWD | LWD | jam | O1 B1 B2 B3 D1 D2 D3 | ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

180

HABITAT QUALITY: NFH

PHOTO DOCUMENTATION: FSZ | ROLL # | # | FOC LG | DIR | COMMENTS
No photos

WILDLIFE: GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS: C | C
No any kind of drainage present @ mapped location or 100 m reaching
NA

181

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K
WATERSHED CODE
ILP MAP # ILP # 11211 NID MAP # NID #
REACH # 1 D SITE # 70 FIELD UTM 10 310423 6001598 6P3 SITE LG 100 0 ACCESS FT
DATE 2 0 0 8 0 8 2 4 TIME 1 4 2 0 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. #
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H (No Vis. Ch. DW) (Dry/Int. Tribs.) | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: headcuts | abun ch | embrk | anvil | SWD | LWD | jam | O1 B1 B2 B3 D1 D2 D3 | ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

182

HABITAT QUALITY: NFH - meltwater runoff with barely scoured places, no flowing, no continuity, not a stream

PHOTO DOCUMENTATION: FSZ | ROLL # | # | FOC LG | DIR | COMMENTS
DIG 1102 SS BD Book

WILDLIFE: GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

183

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K
WATERSHED CODE
ILP MAP # ILP # 11210 NID MAP # NID #
REACH # 1 D SITE # 71 FIELD UTM 10 310508 6001641 6P3 SITE LG 100 0 ACCESS FT
DATE 2 0 0 8 0 8 2 4 TIME 1 4 4 0 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. #
CHANNEL WIDTH (m) | TEMP C | COND. S/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H (No Vis. Ch. DW) (Dry/Int. Tribs.) | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total | Type SWD LWD B U DP OV IV | AMT | LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: headcuts | abun ch | embrk | anvil | SWD | LWD | jam | O1 B1 B2 B3 D1 D2 D3 | ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

184

HABITAT QUALITY: NFH

PHOTO DOCUMENTATION: FSZ | ROLL # | # | FOC LG | DIR | COMMENTS
No photos

WILDLIFE: GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS: C | C
Not any kind of drainage @ mapped location
NA

185

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K
WATERSHED CODE
ILP MAP # ILP # 11208 NID MAP # NID #
REACH # 2 D SITE # 72 FIELD UTM 10 312368 6001338 6P3 SITE LG 200 0 ACCESS V4
DATE 2 0 0 8 0 8 2 4 TIME 1 5 0 5 AGENCY CO16 CREW MJ DJ FISH FORM Y (N)

CHANNEL mthd | GRADIENT % | EMS | REQ. #
CHANNEL WIDTH (m) T 0.8 0.8 1.4 1.0 0.9 1.3 | A2 | TEMP 10 C 13 | COND. S/cm
WETTED WIDTH (m) T 0.8 0.7 1.3 1.0 0.9 1.2 | 7 10 | pH | TURB. T M D C 65
RES. POOL DEPTH (m) T 0.27 0.34 0.23 0.25 | 3 14 | FLD SNS N
W_b Dp (m) 0.2 0.2 M STAGE L M H (No Vis. Ch. DW) (Dry/Int. Tribs.) | BED MATERIAL Dominant G Subdom. C
D95 (cm) 70 D (cm) 7 Morph. SR

COVER: Total 4 | Type SWD LWD B U DP OV IV | AMT T T T S D T N | LOC P P P P P P N
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: headcuts | abun ch | embrk | anvil | SWD | LWD | jam | O1 B1 B2 B3 D1 D2 D3 | ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS SIDE DIAG MID SPAN BR
COUPLING DC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

186

HABITAT QUALITY: NFH - moderately steep drainage caused mainly by runoff (snowmelt/high precip) scoured channel bed & riparian discontinuous however sections with scour exceeds 50 m sometimes where steeper gradient & turns out in slope < 5%, Borderline stream/NCD for 245 m from road then becomes a stream

PHOTO DOCUMENTATION: FSZ | ROLL # | # | FOC LG | DIR | COMMENTS
DIG 1104 SS W book - channelized
DIG 1105 SS W book - dispersion

WILDLIFE: GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS: C | C
One steep frequent with no scour and just overland flow
S6

187

SITE CARD

STREAM NAME (gaz.) (local) Blk BLFH-08-K
WATERSHED CODE 1 8 0 3 7 4 0 0 0 0 9 5 2 2 0 9 6 6 1 5 0 0 1 2 8 9 0 7 1 4 0 0
ILP MAP # ILP # 11202 NID MAP # NID #
REACH # 1 D SITE # 73 FIELD UTM 10 313340 6001342 GPS SITE LG 150 0 ACCESS V4
DATE 2008 08 24 TIME 1545 AGENCY CO16 CREW MJ DJ FISH FORM Y

CHANNEL mthd

	T					
CHANNEL WIDTH (m)	T	0.9	1.0	1.0	0.6	0.6	1.0
WETTED WIDTH (m)	T	0.7	0.7	1.0	0.6	0.2	0.7
RES. POOL DEPTH (m)	MS	0.07	0.11	0.13	0.08	0.19	
W_b Dp (m)	0.15	0.2	0.23	0.2	STAGE L M H		

GRADIENT % AL 5 4 8 6

No Vis. Ch. DW Dry/Int. Tribs.

EMS REQ. #
TEMP 11 C T3 COND. — S/cm
pH TURB. T M L C

FLD SNS V
BED MATERIAL Dominant C Subdom. G
D95 (cm) 18 D (cm) 4 Morph. CF

COVER Total 4

Type	SWD	LWD	B	U	DP	OV	IV
AMT	S	T	T	T	D	S	
LOC	P	P	T	C	P	P	P

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 (3) 4 5

LWD FNC N F A DIST C D INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam, B1 aban ch, B2 erdbk, B3 anut, D1 SWD, D2 LWD, D3 jam; C1 ex rif, C2 no pl, C3 elev br, C4 mult ch, C5 dis line, S1 horn bd, S2 finger, S3 lg wdg, S4 ex bar, S5 ex bd scr

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC PC (CO)
CONFINEMENT EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(188)

HABITAT QUALITY: NFH - tiny & moderately steep tributary draining into NFB flowing streams does not contain sufficient habitat to support isolated fish population

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1106	ST	U	Book
DIG	1107	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: NFB - too shallow

SC

(189)

SITE CARD

STREAM NAME (gaz.) Beach C. (local) BLFH-08-H
WATERSHED CODE 1 8 0 3 7 4 0 0 0 0 9 5 2 0 0 6 6 1 5 0 0 1 2 3 9 0 0
ILP MAP # NID MAP # NID #
REACH # 3 D SITE # 74 FIELD UTM 10 313925 6001429 GPS SITE LG 100 0 ACCESS FS
DATE 2008 08 24 TIME 1625 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)							
WETTED WIDTH (m)							
RES. POOL DEPTH (m)							
W_b Dp (m)					STAGE L M H		

GRADIENT %

No Vis. Ch. DW Dry/Int. Tribs.

EMS REQ. #
TEMP C COND. S/cm
pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam, B1 aban ch, B2 erdbk, B3 anut, D1 SWD, D2 LWD, D3 jam; C1 ex rif, C2 no pl, C3 elev br, C4 mult ch, C5 dis line, S1 horn bd, S2 finger, S3 lg wdg, S4 ex bar, S5 ex bd scr

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(190)

HABITAT QUALITY: NFH - mucky swale, no fluvial substrate or scoured channel bed - not a stream.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1108	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

NCD

(191)

SITE CARD

STREAM NAME (gaz.) Unnamed (local) Blk BLFH-08-K
WATERSHED CODE
ILP MAP # ILP # 11202 NID MAP # NID #
REACH # 1 SITE # 75 FIELD UTM 10 314702 6002157 GPS SITE LG 100 0 ACCESS FS
DATE 2008 08 24 TIME 1510 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)							
WETTED WIDTH (m)							
RES. POOL DEPTH (m)							
W_b Dp (m)					STAGE L M H		

GRADIENT %

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

EMS REQ. #
TEMP °C CON D. µS/cm
pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam, B1 aban ch, B2 erdbk, B3 anut, D1 SWD, D2 LWD, D3 jam; C1 ex rif, C2 no pl, C3 elev br, C4 mult ch, C5 dis line, S1 horn bd, S2 finger, S3 lg wdg, S4 ex bar, S5 ex bd scr

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

(192)

HABITAT QUALITY: NFH - steep (60%) gully with no signs of water flowing ever.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

NA

(193)

SITE CARD

STREAM NAME (gaz.) (local) Blk BLFH-08-J
WATERSHED CODE 1 8 0 3 7 4 0 0 0 0 9 5 2 0 0 1 0 1 9 0 0 3 5 8 2 1 7 6 0 4 0 1
ILP MAP # 11006 NID MAP # NID #
REACH # 1 SITE # 76 FIELD UTM 10 316643 6001008 GPS SITE LG 40 0 ACCESS FS
DATE 2008 08 25 TIME 1415 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)							
WETTED WIDTH (m)							
RES. POOL DEPTH (m)							
W_b Dp (m)					STAGE L M H		

GRADIENT %

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

EMS REQ. #
TEMP 15 °C T3 CON D. 60 µS/cm 54
pH 7.0 TURB. T M D C SE

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M (N) RIP. VEG. N G S C D M (N)
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam, B1 aban ch, B2 erdbk, B3 anut, D1 SWD, D2 LWD, D3 jam; C1 ex rif, C2 no pl, C3 elev br, C4 mult ch, C5 dis line, S1 horn bd, S2 finger, S3 lg wdg, S4 ex bar, S5 ex bd scr

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
		FS2		100	0	R F	Potential Refuge	10 316643 6001008
						R F		
						R F		
						R F		

(194)

HABITAT QUALITY: NFH - flooded swale vegetated by mostly stands of willows channelized for ~ 40m d/s of wetland/swale which may provide refuge for RB from Tetsenkut C. Otherwise unsuitable by RB, no scour of fluvium. Not a creek

FSZ X

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1109	ST	D	Book - confl with Tetsenkut C SC
	1110		U	No scale - start of NCD
	1111	V	U	Book - overland flow
	1112		X	Book - flooded swale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

observed from site WM to pt 157 (NCD from here)

Prairie rose mismapped on TRIM - flows to SC of Tetsenkut C.

NCD

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COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08-J ☐ LAKE ☐ STREAM ☑ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 11006 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 1 FISH PERMIT # SM08-45742
DATE 20080818 25 to AGENCY COI6 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION TURB.	COMMENTS
76			10 316643 6001008 GPS	EF 1	15	60	C

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
76	EF 1	1	NFC			5				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

196

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	76	EF 1	1	1155	1205	97	40	1.0	0	500	80	6	SR	12.B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

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SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08-J
WATERSHED CODE 1 8 0 3 7 4 0 0 0 9 5 2 0 0 0 1 9 0 0 3 5 8 0 7 4 6 0
ILP MAP # ILP # NID MAP # NID #
REACH # 4 SITE # 77 FIELD UTM 10 315731 6000275 GPS SITE LG 500 0 ACCESS FT
DATE 20080825 TIME 1400 AGENCY COI6 CREW MJ DJ FISH FORM Y ☒ N ☐

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.2	1.2	1.4	1.4	1.4	1.2			
WETTED WIDTH (m)	T	1.1	1.2	1.3	1.3	1.1	1.0			
RES. POOL DEPTH (m)	MS	0.17	0.11	0.09						

GRADIENT % (MTD): AL 2 3 2 2

W_b Dp (m) 0.15 0.2 0.2 0.2 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

EMS REQ # TEMP 11 °C T3 CON D. 100 µS/cm pH TURB. T M L C

FLD SNS ✓ BED MATERIAL Dominant G Subdom. F D95 (cm) 8 D (cm) 4 Morph. RF

COVER Total 4

	SWD	LWD	B	U	DP	OV	IV
AMT	S	T	N	I	T	D	N
LOC	P	P		P	P	P	

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 (4) 5

LWD FNC N (E) A DIST C (E)
LB SHP U (V) S O
TEXTURE (P) C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NP)

INSTREAM VEG (N) A M V
RB SHP U (V) S O
TEXTURE (D) C B R A
RIP. VEG. N G (S) C D M
STAGE INIT SHR PS YF MF (NA)

MORPHOLOGY

DISTURBANCE INDICATORS: 01 (beavdam) B1 (aban ch) B2 (erdbk) B3 (avul) D1 (SWD) D2 (LWD) D3 (jam); C1 (ex rif) C2 (no pl) C3 (elev br) C4 (mult ch) C5 (dis line) S1 (horn bd) S2 (finger) S3 (lg wdg) S4 (ex bar) S5 (ex bd scr)

PATTERN TM ME IM (IR) SI ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING (MP) PC CO
CONFINEMENT EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

198

HABITAT QUALITY

R - G @ LF only wide dense DV cover
S - G → almost pure gravels in channel - DB try v. abundant
D - none → in lake

FSZ ☐

WATER

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG 1104		ST	D	No scale - view of mouth
DIG 1115		ST	X	No scale - view of BD near lake
DIG 1118		ST	BD	Book - spawning gravels
DIG 1119		ST	U	Book
DIG 1120		ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C	
	Lower ~ 300 m of stream is intermittent.
	RB try v. abundant in lower 300 m - excellent spawning hab

S4

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COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08-J ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 1 8 0 3 7 4 0 0 0 9 5 2 0 0 0 1 9 0 0 3 5 8 0 7 4 6 0
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☒ ☐ N
PROJECT ID REACH # 4 FISH PERMIT # SM08-45742
DATE 20080825 to AGENCY COI6 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION TURB.	COMMENTS
77			10 315731 6000275 GPS	EF 1	11	100	C

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
77	EF 1	1	RB	F		12	30	40	R	V. abundant

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

200

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	77	EF 1	1	1400	1530	56	40	1	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
	77	EF 1	1	RB	31											R__ F__
					35											R__ F__
					34											R__ F__
					40											R__ F__
					31											R__ F__
					38											R__ F__
					34											R__ F__
					30											R__ F__
					32											R__ F__
					31											R__ F__
					38											R__ F__
					40											R__ F__

1 spot sampling - RB try v. abundant - many more observed

201

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08-J
WATERSHED CODE
ILP MAP # ILP # 11203 NID MAP # NID #
REACH # 1 SITE # 78 FIELD UTM 10 315264 6000075 GPS SITE LG 100 0 ACCESS FT
DATE 20080825 TIME 1620 AGENCY COI6 CREW MJ DJ FISH FORM Y ☐ N ☒

CHANNEL mthd

CHANNEL WIDTH (m)										
WETTED WIDTH (m)										
RES. POOL DEPTH (m)										

GRADIENT % (MTD)

W_b Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

EMS REQ # TEMP °C CON D. µS/cm pH TURB. T M L C

FLD SNS BED MATERIAL Dominant Subdom. D95 (cm) D (cm) Morph.

COVER Total

	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: 01 (beavdam) B1 (aban ch) B2 (erdbk) B3 (avul) D1 (SWD) D2 (LWD) D3 (jam); C1 (ex rif) C2 (no pl) C3 (elev br) C4 (mult ch) C5 (dis line) S1 (horn bd) S2 (finger) S3 (lg wdg) S4 (ex bar) S5 (ex bd scr)

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

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HABITAT QUALITY

NFH

FSZ ☐

WATER

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C	
	Not any kind of spawning @ marker location

NA

203

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLFU ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 180374000950000190035807460
WATERBODY ID | ILP MAP # | ILP # | SITE/LAKE CARD ATTACHED ☐ Y ☒ N
PROJECT ID | REACH # 5 | FISH PERMIT # SM08-45742
DATE 20080825 to | AGENCY C016 | CREW MJ, DJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
79			10 315036 6000086 GP3	EF 1	11	100	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
79	EF 1	1	RB							

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	79	EF 1	1	1640	1700	274	300	1	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	SAMPLE #	COMMENTS	PHOTO
	79	EF 1	1	RB	112											R__ F__
	↓	↓	↓	RB	86											R__ F__
				RB	93											R__ F__
				RB	147											R__ F__
				RB	75											R__ F__

Resampling site – fish not abundant channel widths less than 1.5 m consistently

(205)

SITE CARD

STREAM NAME (gaz.) | (local) BLK BLFU_08_J
WATERSHED CODE 180374000950000190035807460
ILP MAP # | ILP # | NID MAP # | NID #
REACH # 7 | SITE # 80 | FIELD UTM 10 314609 6000322 GP3 | SITE LG 60 GP3 | ACCESS FT
DATE 20080825 | TIME 1705 | AGENCY C016 | CREW MJ, DJ | FISH FORM ☒ Y ☐ N

CHANNEL (mthd)
- CHANNEL WIDTH (m): T 1.3 1.3 1.1 1.3 1.2 1.4
- WETTED WIDTH (m): T 1.1 1.1 1.1 1.1 1.2 1.4
- RES. POOL DEPTH (m): MS 0.19 0.14 0.47 0.3
- W_b Dp (m): 0.2 0.25 0.25 0.2 — STAGE (L) M H
- GRADIENT %: AL 0.5
- No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total: A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	S	T	D	S	
LOC	P	P	P	P	P	P	

CROWN CLOSURE: 0 1 2 (3) 4 5

- LWD FNC: N (F) A — DIST: C (E)
- LB SHP: U (V) S O — RB SHP: (U) V S O
- TEXTURE: (F) G C B R A — TEXTURE: (F) G C B R A
- RIP. VEG.: N G (S) C D M W — RIP. VEG.: N G (S) C D M
- STAGE: INIT SHR PS YF MF (NA) — STAGE: INIT SHR PS YF MF (NA)
- INSTREAM VEG: N A (M) V

WATER
- EMS | REQ #
- TEMP 11 °C T3 | CON D. 110 µS/cm SY
- pH | TURB. T M L (C) SE
- FLD SNS: N

MORPHOLOGY
- BED MATERIAL: Dominant G | Subdom. C
- D95 (cm) 40 | D (cm) 3 | Morph. RP
- DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
- PATTERN: TM ME IM (IR) SI ST
- ISLANDS: (N) O I F S AN
- BARS: (N) SIDE DIAG MID SPAN BR
- COUPLING: (DC) PC CO
- CONFINEMENT: EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

(206)

HABITAT QUALITY

R – Good @ any water level, cover abundant
S – G. – gravels very common, good holding, fry captured almost instantly
O – fair – deep pools are not abundant

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1121	ST	U	
DIG	1122	ST	D	

WILDLIFE — GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS

S4

(207)

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFU_08_J ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 180374000950000190035807460
WATERBODY ID | ILP MAP # | ILP # | SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID | REACH # 7 | FISH PERMIT # SM08-45742
DATE 20080825 to | AGENCY C016 | CREW MJ, DJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
80			10 314609 6000322 GP3	EF 1	11	110	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
80	EF 1	1	RB	F		1	31	31	R	

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(208)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	80	EF 1	1	1705	1705	3	1	1	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	SAMPLE #	COMMENTS	PHOTO

(209)

SITE CARD

STREAM NAME (gaz.) | (local) BLFU_08_L
WATERSHED CODE 180374000950000190035808920
ILP MAP # | ILP # | NID MAP # | NID #
REACH # 1 | SITE # 81 | FIELD UTM 10 313354 6003790 GP3 | SITE LG 150 | ACCESS F
DATE 20080901 | TIME 1315 | AGENCY C016 | CREW MJ, DJ | FISH FORM ☐ Y ☒ N

CHANNEL (mthd)
- CHANNEL WIDTH (m): T 3.2 3.1 2.4 2.1 2.0 2.6
- WETTED WIDTH (m): T 2.1 2.7 2.2 1.8 1.8 2.6
- RES. POOL DEPTH (m): MS 0.27 0.36 0.13
- W_b Dp (m): 0.4 0.25 0.18 0.42 — STAGE (L) M H
- GRADIENT %: AL 4 5 / 8 7
- No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total: M

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	D	S	T	S	T
LOC							

CROWN CLOSURE: 0 1 (2) 3 4 5

- LWD FNC: N (F) A — DIST: C (E)
- LB SHP: U (V) S O — RB SHP: (U) V S O
- TEXTURE: F G (C) (B) R A — TEXTURE: F G (C) (B) R A
- RIP. VEG.: N G S (C) D M W — RIP. VEG.: N G S (C) D M
- STAGE: INIT SHR PS YF (MF) NA — STAGE: INIT SHR PS YF (MF) NA
- INSTREAM VEG: N A (M) V

WATER
- EMS | REQ #
- TEMP 7 °C T3 | CON D. µS/cm
- pH | TURB. T M (L) C SE
- FLD SNS: N

MORPHOLOGY
- BED MATERIAL: Dominant C | Subdom. B
- D95 (cm) 55 | D (cm) 17 | Morph. CP
- DISTURBANCE INDICATORS: 01 B1 (B2) B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
- PATTERN: TM ME IM IR (SI) ST
- ISLANDS: (N) O I F S AN
- BARS: N (SIDE) (DIAG) (MID) SPAN BR
- COUPLING: DC PC (CO)
- CONFINEMENT: EN (CO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

(210)

HABITAT QUALITY

Overall moderate potential hab for RB d/t insufficient ISC @ HF, no S or O hab, pools scarce (every 50 m). Site isolated d/t barrier in tributary C, d/s. No isolated fish population present in the system, sampled many sites in past u/s of falls

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1123	95	U	Book
DIG	1124	95	D	– " –

WILDLIFE — GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS

Visited site to verify CW

S6

(211)

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K

WATERSHED CODE

ILP MAP # ILP # 11300 NID MAP # NID #

REACH # 1 SITE # 82 FIELD UTM 10 315349 6002642 GPS SITE LG 360.3 ACCESS FT

DATE 2008091011 TIME 1415 AGENCY C016 CREW MJ, DJ FISH FORM Y ☐ N ☐

CHANNEL mthd | GRADIENT % | EMS | REQ # | WATER

CHANNEL WIDTH (m) | WETTED WIDTH (m) | RES. POOL DEPTH (m) | W_b Dp (m) STAGE L M H | No Vis. Ch. ☐ DW ☐ | Dry/Int. ☐ Tribs. ☐

TEMP °C | pH | CON D. µS/cm | TURB. T M L C

FLD SNS

BED MATERIAL Dominant Subdom.

D95 (cm) D (cm) Morph.

COVER

Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

LWD FNC N F A DIST C E

LB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M W

STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V

RB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M

STAGE INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: 01 (beav dam) B1 (aban ch) B2 (ersbk) B3 (avul) D1 (SWD) D2 (LWD) D3 (jam); ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

212

HABITAT QUALITY

NFH - seepage periodically puddles up, no scour or pluvium, not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1125	ST	U	Book - never confl
DIG	1126	ST	U	Book - within shallow gully

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C (Image) average - reached height of bank @ pt 211

NCD

213

SITE CARD

STREAM NAME (gaz.) Beach C. (local) BLK BLFH_08_K

WATERSHED CODE 1801374109091512010166501012390

ILP MAP # ILP # NID MAP # NID #

REACH # 11 SITE # 83 FIELD UTM 10 313523 6001225 GPS SITE LG 200.0 ACCESS VH

DATE 2008091011 TIME 1535 AGENCY C016 CREW MJ, DJ FISH FORM Y ☐ N ☐

CHANNEL mthd | GRADIENT % | EMS | REQ # | WATER

CHANNEL WIDTH (m) | WETTED WIDTH (m) | RES. POOL DEPTH (m) | W_b Dp (m) STAGE L M H | No Vis. Ch. ☐ DW ☐ | Dry/Int. ☐ Tribs. ☐

TEMP °C | pH | CON D. µS/cm | TURB. T M L C

FLD SNS

BED MATERIAL Dominant Subdom.

D95 (cm) D (cm) Morph.

COVER

Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

LWD FNC N F A DIST C E

LB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M W

STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V

RB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M

STAGE INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: 01 (beav dam) B1 (aban ch) B2 (ersbk) B3 (avul) D1 (SWD) D2 (LWD) D3 (jam); ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

214

HABITAT QUALITY

NFH - confirmed NCD from 2001 - drainage lacks continuous scoured channel bed or fluvial deposits. Scour v. sparse & isolated so is the fluvial deposits.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1127	ST	U	Book
DIG	1128	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C "Stream" looters similar on the U/S side of road. Water from tributary completely disappears @ 25 m from trib

NCD

215

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_I

WATERSHED CODE 1801374109095120101190035807460121221

ILP MAP # ILP # NID MAP # NID #

REACH # 6 SITE # 84 FIELD UTM 10 315774 5999202 GPS SITE LG 320.3 ACCESS FT

DATE 2008091012 TIME 1210 AGENCY C016 CREW MJ, DJ FISH FORM FS N ☐

CHANNEL mthd | GRADIENT % A L | EMS | REQ # | WATER

CHANNEL WIDTH (m) T 1.1 1.0 1.3 1.4 1.2 1.3 | WETTED WIDTH (m) T 0.9 1.0 1.3 1.2 0.8 1.2 | RES. POOL DEPTH (m) M S 0.24 0.11 0.28 0.23 0.12 | W_b Dp (m) 0.4 0.3 0.3 0.35 STAGE L M H | No Vis. Ch. ☐ DW ☐ | Dry/Int. ☐ Tribs. ☐

4 2 | 4 3

TEMP 8 °C T3 | pH | CON D. 110 µS/cm SA | TURB. T M E C SE

FLD SNS

BED MATERIAL Dominant C Subdom. G

D95 (cm) 50 D (cm) 7 Morph. RP

COVER

Total A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	T	D	S	S	N
LOC	P	P	P	P	C		

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 (2) 3 4 5

LWD FNC N (F) A DIST C (E)

LB SHP (U) V S O

TEXTURE (F) G (C) B R A

RIP. VEG. N G S (C) D M W

STAGE INIT SHR PS YF (MF) NA

INSTREAM VEG (N) A M V

RB SHP (U) V S O

TEXTURE (F) G (C) B R A

RIP. VEG. N G S (C) D M

STAGE INIT SHR PS YF MF (NA)

MORPHOLOGY

DISTURBANCE INDICATORS: 01 (beav dam) B1 (aban ch) B2 (ersbk) B3 (avul) D1 (SWD) D2 (LWD) D3 (jam); ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR (SI) ST

ISLANDS (N) O I F S AN

BARS N (SIDE) DIAG MID SPAN BR

COUPLING DC (PC) CO

CONFINEMENT EN CO (FC) OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

216

HABITAT QUALITY

Overall good & usable R hab qual RB. No S or O -> G mixed with C, & too shallow.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1129	ST	U	book
DIG	1130	ST	D	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Flows through occasionally inched channel, 2 shovel WCF also noted & not barriers

S6

217

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLFH_08_I ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE 1801374109095120101910035807460121221

WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☒ Y ☐ N

PROJECT ID REACH # 6 FISH PERMIT # SM08-45742

DATE 2008091012 to MM DD YY AGENCY C016 CREW MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
84			10 315774 5999202 GPS	EF 1	8	110	2	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
84	EF 1	1	NFC			0				

GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

218

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	84	EF 1	1	1220	1255	247	300	1	0	400	80	6	SR	125

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

219

SITE CARD

STREAM NAME (gaz.) (local) Blk BLFH_08_I

WATERSHED CODE 1 8 0 3 7 4 0 0 0 0 9 5 2 0 9 0 1 9 0 0 0 3 5 8 0 7 4 6 0 1 2 2 0 0 9

ILP MAP # ILP # 11204 NID MAP # NID #

REACH # 5 SITE # 85 FIELD UTM 10 316526 5999014 GPS SITE LG 100 0 ACCESS FT

DATE 2 0 0 8 0 9 0 2 TIME 1 4 4 5 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd

CHANNEL WIDTH (m)

WETTED WIDTH (m)

RES. POOL DEPTH (m)

W_b Dp (m) STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % mthd

WATER

EMS REQ #

TEMP °C CON D. µS/cm

pH TURB. T M L C

FLD SNS

BED MATERIAL Dominant Subdom.

D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS: 01 (bedrock, abandoned ch, endbx, avul) B1 (multiple ch, dis line, horn bd) B2 (horn bd) B3 (finger) D1 (SWD, lg wdg) D2 (LWD, ex bar) D3 (jam); C1 (ex rif, no rif, elev br) C2 C3 C4 (mult ch) C5 S1 S2 S3 S4 S5

PATTERN	TM	ME	IM	IR	SI	ST
ISLANDS	N	O	I	F	S	AN
BARS	N	SIDE	DIAG	MID	SPAN	BR
COUPLING	DC	PC	CO			
CONFINEMENT	EN	CO	FC	OC	UN	N/A

COVER Total

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%

LWD FNC	N	F	A	DIST	C	E
LB SHP	U	V	S	O		
TEXTURE	F	G	C	B	R	A
RIP. VEG.	N	G	S	C	D	M	W
STAGE	INIT	SHR	PS	YF	MF	NA

INSTREAM VEG	N	A	M	V		
RB SHP	U	V	S	O		
TEXTURE	F	G	C	B	R	A
RIP. VEG.	N	G	S	C	D	M
STAGE	INIT	SHR	PS	YF	MF	NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

220

HABITAT QUALITY

NFH - isolated multipaths of scoured clayey layer watered likely during spring runoff into channel bed or glaring - not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1131	SF	L	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
			NCD

221

SITE CARD

STREAM NAME (gaz.) (local) Blk BLFH_08_I

WATERSHED CODE 1 8 0 3 7 4 0 0 0 0 9 5 2 0 9 0 1 9 0 0 0 3 5 8 0 7 4 6 0 1 2 2

ILP MAP # ILP # NID MAP # NID #

REACH # 4 SITE # 86 FIELD UTM 10 316984 5999422 GPS SITE LG 200 0 ACCESS FT

DATE 2 0 0 8 0 9 0 2 TIME 1 5 1 0 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☒ N ☐

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.2	0.7	1.1	1.2	0.6	1.3					
WETTED WIDTH (m)	T	1.2	0.7	1.1	1.2	0.6	1.2					
RES. POOL DEPTH (m)	M	0.33	0.39	0.28	0.37	0.28	0.33	0.35				
W_b Dp (m)	0.4	0.35	0.4	0.25								

STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % mthd: AL; 6 7

WATER

EMS 9 °C T3 REQ #

CON D. µS/cm

pH TURB. T MTD C

FLD SNS Sump debris, SC

BED MATERIAL Dominant F Subdom. G

D95 (cm) 45 D (cm) 6 Morph. SA

DISTURBANCE INDICATORS: 01 (bedrock, abandoned ch, endbx, avul) B1 (multiple ch, dis line, horn bd) B2 (horn bd) B3 (finger) D1 (SWD, lg wdg) D2 (LWD, ex bar) D3 (jam); C1 (ex rif, no rif, elev br) C2 C3 C4 (mult ch) C5 S1 S2 S3 S4 S5

PATTERN	TM	ME	IM	IR	SI	ST
ISLANDS	N	O	I	F	S	AN
BARS	N	SIDE	DIAG	MID	SPAN	BR
COUPLING	DC	PC	CO			
CONFINEMENT	EN	CO	FC	OC	UN	N/A

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
Type	T	T	T	S	D	S	T
AMT	P	P	P	P	P	P	P
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%

LWD FNC	N	F	A	DIST	C	E
LB SHP	U	V	S	O		
TEXTURE	F	G	C	B	R	A
RIP. VEG.	N	G	S	C	D	M	W
STAGE	INIT	SHR	PS	YF	MF	NA

INSTREAM VEG	N	A	M	V		
RB SHP	U	V	S	O		
TEXTURE	F	G	C	B	R	A
RIP. VEG.	N	G	S	D	M	
STAGE	INIT	SHR	PS	YF	MF	NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

222

HABITAT QUALITY

stream exhibits signs of high flows / drought - drift orgs not scoured (indicate seasonality) or short sections of subdued flow, R sinuosity in many pools, S - some potential & usable gravels @ pool crests but too much fines would reduce incubation success, O - more → too shallow

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1132	SF	U	Book
DIG	1133	SF	D	— " —

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	

223

COMBINED FISH COLLECTION

GAZETTED NAME (local) Blk BLFH_08_I ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE 1 8 0 3 7 4 0 0 0 0 9 5 2 0 9 0 1 9 0 0 0 3 5 8 0 7 4 6 0 1 2 2

WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☒ Y ☐ N

PROJECT ID REACH # 4 - FISH PERMIT # SM08-45742

DATE 2 0 0 8 0 9 0 2 to YMD AGENCY CO16 CREW MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
86			10 316984 5999422 GPS	EF 1	9	110	L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
86	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

224

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	86	EF 1	1	1510	1600	593	800	1.0	0	400	8	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

225

COMBINED FISH COLLECTION

GAZETTED NAME (local) Blk BLFH_08_I ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE 1 8 0 3 7 4 0 0 0 0 9 5 2 0 9 0 1 9 0 0 0 3 5 8 0 7 4 6 0 1 2 2

WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☐ Y ☒ N

PROJECT ID REACH # 3 - FISH PERMIT # SM08-45742

DATE 2 0 0 8 0 9 0 2 to YMD AGENCY CO16 CREW MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
87			10 317626 5999686 GPS	EF 1	9	110	L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
87	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

226

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	87	EF 1	1	1600	1630	412	600	1.0	0	500	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

227

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08_J ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE 180|3|7|4|0|0|0|9|5|2|0|0|0|1|9|0|0|3|5|8|0|7|4|6|0|1|2|2|

WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☐ Y ☒ N

PROJECT ID REACH # 2 – FISH PERMIT # SM08-45742

DATE 20|08|09|02 to AGENCY CO16 CREW MJ, DJ ☐ RE-SAMPLE

SITE/METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
88			10 317936 6999801 GPS	EF 1	9	110	L	Resampling

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
89	EF 1	1	NFC			0				

GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

228

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	88	EF 1	1	1630	1700	287	400	1.0	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

229

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K

WATERSHED CODE

ILP MAP # ILP # 11301 NID MAP # NID #

REACH # 1 SITE # 89 FIELD UTM 10|315010|6001764|GPS SITE LG 100|0 ACCESS FT

DATE 20|08|09|03 TIME 1|0|0|0 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd

CHANNEL WIDTH (m)

WETTED WIDTH (m)

RES. POOL DEPTH (m)

W_D Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

LWD FNC N F A DIST C E

LB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M W

STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V

RB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M

STAGE INIT SHR PS YF MF NA

GRADIENT %

CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%: 0 1 2 3 4 5

WATER

EMS TEMP °C REQ # CON D. µS/cm TURB. T M L C

FLD SNS

BED MATERIAL Dominant Subdom.

D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3

ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

230

HABITAT QUALITY: NFH - tiny seepage (~70 m long) from small NCH (~30 x 50 m) - completely disappears on NW slope of Tchesinkut C outlet. Water phenolics up @ outlet

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1134	ST	U	NO scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

NCD

231

SITE CARD

STREAM NAME (gaz.) Tchesinkut C (local) BLK BLFH_08_J

WATERSHED CODE 180|3|7|4|0|0|0|9|5|2|0|0|0|1|9|0|0|3|5|8|0|

ILP MAP # ILP # NID MAP # NID #

REACH # 9 SITE # 90 FIELD UTM 10|316607|6000999|GPS SITE LG 750|0 ACCESS FT

DATE 20|08|09|03 TIME 1|4|0|0 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd 1 1 1

CHANNEL WIDTH (m) GE 8 10 15

WETTED WIDTH (m) GE 8 10 15

RES. POOL DEPTH (m) GE 0.5 0.8

W_D Dp (m) 1.2 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	S	I	N	D	I	N
LOC	PS	PS	PS		FS	FS	

LWD FNC N F A DIST C E

LB SHP U N S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M W

STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V

RB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M

STAGE INIT SHR PS YF MF NA

GRADIENT % A 2

CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%: 0 1 2 3 4 5

WATER

EMS TEMP 9 °C T3 REQ # CON D. µS/cm TURB. T M L C

FLD SNS 4 - extreme branching

BED MATERIAL Dominant C Subdom. G

D95 (cm) 35 D (cm) 20 Morph. RP

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3

ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

232

HABITAT QUALITY: Stream @ location is extreme volatile channel frequently changing with branching & large gravel deposits. At present another channel is being created which will join unmapped str. Lower section begins to resemble active floodplain

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1135	ST	U	NE "channel" - floodplain
	1136		D	
	1137		O	mosaic of new channel (flooded area)
	1139		O	
	1144		D	Slough

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

Ch hard to distinguish Area affected by flood water ds in range 55 m wide

Flows not as mapped

One of the flood "channel" begins to feed unmapped

stn 11302 - Likely will follow its course in the future

52

233

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_J

WATERSHED CODE

ILP MAP # ILP # 11302 NID MAP # NID #

REACH # 1 SITE # 91 FIELD UTM 10|316594|6000970|GPS SITE LG 300|0 ACCESS FT

DATE 20|08|09|03 TIME 1|1|4|5 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd

CHANNEL WIDTH (m) T 0.8 0.9 0.8 1.3 1.5 1.6

WETTED WIDTH (m) T 0.6 0.7 0.8 1.0 1.4 1.4

RES. POOL DEPTH (m) MS 0.4 0.5

W_D Dp (m) 0.2 0.15 0.2 0.2 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	S	I	N	S	T	D
LOC	P	P		P	P	P	

LWD FNC N F A DIST C E

LB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M W

STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V

RB SHP U V S O

TEXTURE F G C B R A

RIP. VEG. N G S C D M

STAGE INIT SHR PS YF MF NA

GRADIENT % AL 1

CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%: 0 1 2 3 4 5

WATER

EMS TEMP 10 °C T3 REQ # CON D. µS/cm TURB. T M L C SS

FLD SNS N

BED MATERIAL Dominant F Subdom. G

D95 (cm) 2 D (cm) 1 Morph. RP

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3

ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

234

HABITAT QUALITY: Easily accessible from Tchesinkut C (stable R bed) and potential D near NCD section.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1141	ST	U	Book - NCD formal
DIG	1142	ST	U	-"- - stream
DIG	1143	ST	D	-"- - stream

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

Unmapped C occasionally fed by flood water from Tchesinkut C. Likely will become part of Tchesinkut C as a side channel.

Joins stn 11006 @ end of FSZ

(54)/NCD

235

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_K
WATERSHED CODE
ILP MAP # ILP # 11208 NID MAP # NID #
REACH # 3 SITE # 92 FIELD UTM 10 312573 6001953 6P3 SITE LG 310 HC ACCESS FT
DATE 20 08 09 03 TIME 15 10 AGENCY CRD CREW MJ, DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☑ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

236

HABITAT QUALITY: NFH – drainage becomes discontinuous downstream isolated, mostly overland flow alternating with ~20 m long scoured channel – not a stream
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1145	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C becomes NCD 724 m u/s from x imp/slope dist
NCD

237

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_F
WATERSHED CODE 1 80 37 40 90 09 50 20 06 39 00 80 60
ILP MAP # ILP # NID MAP # NID #
REACH # 2 1 SITE # 93 FIELD UTM 10 310041 5995424 6P3 SITE LG 150 0 ACCESS FT
DATE 20 08 09 04 TIME 11 05 AGENCY CRD CREW MJ, DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m) T 0.7 0.7 0.7 1.1 0.9 1.0
WETTED WIDTH (m) T 0.4 0.6 0.5 0.8 0.7 0.8
RES. POOL DEPTH (m) M 0.09 0.36 0.14
W_b Dp (m) 0.2 0.2 0.1 0.15 STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT % AL 4.5 4.5 6

COVER Total 4
Type SWD LWD B U DP OV IV
AMT S T N N S D T
LOC P P P P P P
CROWN CLOSURE 0 1 2 3 4 5
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

WATER
EMS REQ #
TEMP 10 °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant G Subdom. C
D95 (cm) 20 D (cm) 4 Morph. CP

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS M SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

238

HABITAT QUALITY: NFH – tiny creek with no offering for fish, seasonal, @ present v. shallow with no O, S or R.
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1150	ST	U	Book
D16	1151	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C stream severely trampled by cattle w/channel loses its defined course, cows droppings in channel.
S6

239

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_F
WATERSHED CODE 1 80 37 40 90 09 52 00 65 20 05 96 0
ILP MAP # ILP # NID MAP # NID #
REACH # 2 SITE # 94 FIELD UTM 10 309530 5995504 6P3 SITE LG 160 0 ACCESS FT
DATE 20 08 09 04 TIME 11 15 AGENCY CRD CREW MJ, DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

240

HABITAT QUALITY: NFH – steep gully with barely any signs of wetness bottom during survey mostly only some isolated moss covered cobbles on tiny scoured dry pools
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1152	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
NCD

241

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_F
WATERSHED CODE
ILP MAP # ILP # 11221 NID MAP # NID #
REACH # 1 SITE # 95 FIELD UTM 10 309009 5995362 6P3 SITE LG 200 0 ACCESS FT
DATE 20 08 09 04 TIME 12 15 AGENCY CRD CREW MJ, DS FISH FORM Y☒ N☐

CHANNEL mthd
CHANNEL WIDTH (m) T 2.2 1.9 1.9 1.4 1.7 1.8
WETTED WIDTH (m) T 2.2 1.9 1.5 1.4 1.7 1.8
RES. POOL DEPTH (m) M 0.44 0.37 0.29 0.24
W_b Dp (m) 0.45 0.35 0.39 0.3 STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT % AL 3 1

COVER Total 4
Type SWD LWD B U DP OV IV
AMT S T T D S T T
LOC P P P P P P P
CROWN CLOSURE 0 1 2 3 4 5
LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

WATER
EMS REQ #
TEMP 10 °C CON D. 120 µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant G Subdom. C
D95 (cm) 40 D (cm) 6 Morph. RP

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS M O I F S AN
BARS M SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

242

HABITAT QUALITY: R – Exc → v. abundant & diverse cover
S – Poor – only tiny & isolated pockets of suitable G observed otherwise mix LC/F
O – F – v. likely some suitable pools exist.
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1153	ST	U	Book
D16	1154	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
S6

243

FISH COLLECTION FORM

GAZETTED NAME: (local) BLK BLFH DS F — LAKE — STREAM — WETLAND
WATERSHED CODE:
WATERBODY ID: ILP MAP #: ILP #: 11221 SITE/LAKE CARD ATTACHED: Y N
PROJECT ID: REACH #: 8 FISH PERMIT #: SP08-45742
DATE: 20 10 8 09 10 14 to YY MM DD AGENCY: CO16 CREW: MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CLAR	STREAM CONDITION TURB	COMMENTS
95			10 309009 5975262 EF	1 1 1	10	120	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
95	EFI	1	NFC			0				

244

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	RAB.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
95	EFI	1	1235	1300	477	700	2	0	400	87	6	SR	12B

COMMENTS

√ nice brook with lots of hab

245

SITE CARD

STREAM NAME (gaz.): (local) BLK BLFH_08_F
WATERSHED CODE:
ILP MAP #: ILP # 11303 NID MAP #: NID #:
REACH # 1 SITE # 96 FIELD UTM 10 309035 5995410 6P3 SITE LG 200 0 ACCESS FT
DATE 2 9 0 9 0 9 0 14 TIME 1 3 3 0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %

WATER
EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type: SWD LWD B U DP OV IV
AMT
LOC
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE
0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%
0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
beaverdam | aban ch | endbx | avul | SWD | LWD | jam
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

246

HABITAT QUALITY
NFH - seepage with occasional scour & channel, but discontinuous - drains swampy area adjacent to parent str

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1155	ST	LP	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Unmapped drainage - joins parent str @ sta UTM
C:
NCD

247

SITE CARD

STREAM NAME (gaz.): (local) BLK BLFH_08_F
WATERSHED CODE:
ILP MAP #: ILP # 11304 NID MAP #: NID #:
REACH # 1 SITE # 97 FIELD UTM 10 308977 5995437 6P3 SITE LG 150 0 ACCESS FT
DATE 2 0 0 9 0 9 0 14 TIME 1 4 0 0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %

WATER
EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type: SWD LWD B U DP OV IV
AMT
LOC
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE
0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%
0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
beaverdam | aban ch | endbx | avul | SWD | LWD | jam
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			BMA			R___ F___	No drainage @ TRIM location	10 309034 5995728 6P3
						R___ F___		
						R___ F___		
						R___ F___		

248

HABITAT QUALITY
NFH - tiny drainage with somewhat channel & scoured bed in lower 50 m then discontinous, prog subterranean flow or percolation.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1156	ST	U	Book
DIG	1157	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C:
C:
NCD

249

SITE CARD

STREAM NAME (gaz.): (local) BLK BLFH_08_F
WATERSHED CODE:
ILP MAP #: ILP # 11305 NID MAP #: NID #:
REACH # 1 SITE # 98 FIELD UTM 10 309039 5995686 6P3 SITE LG 100 0 ACCESS FT
DATE 2 0 0 9 0 9 0 14 TIME 1 4 1 0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %

WATER
EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type: SWD LWD B U DP OV IV
AMT
LOC
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE
0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%
0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
beaverdam | aban ch | endbx | avul | SWD | LWD | jam
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

250

HABITAT QUALITY
NFH - tiny unmapped seepage from small swamp puddles up in places

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1158	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C:
C:
NCD

251

SITE CARD

STREAM NAME (gaz.) (local) BLW BLFH-08-F
WATERSHED CODE
ILP MAP # ILP # 11222 NID MAP # NID #
REACH # 1 SITE # 99 FIELD UTM 10 309807 5995528 6P3 SITE LG 400.0 ACCESS FT
DATE 20080904 TIME 1450 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % MTD

EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER — Total
Type: SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3; ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E	INSTREAM VEG N A M V	PATTERN TM ME IM IR SI ST	
LB SHP U V S O	RB SHP U V S O	ISLANDS N O I F S AN	
TEXTURE F G C B R A	TEXTURE F G C B R A	BARS N SIDE DIAG MID SPAN BR	
RIP. VEG. N G S C D M W	RIP. VEG. N G S C D M	COUPLING DC PC CO	
STAGE INIT SHR PS YF MF NA	STAGE INIT SHR PS YF MF NA	CONFINEMENT EN CO FC OC UN N/A	

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

252

HABITAT QUALITY

FSZ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: No drainage as mapped or anywhere b/w two unmapped trib's — ND

C:

253

SITE CARD

STREAM NAME (gaz.) (local) BLW BLFH-08-F
WATERSHED CODE
ILP MAP # ILP # 11219 NID MAP # NID #
REACH # 1 SITE # 100 FIELD UTM 10 309868 5995465 6P3 SITE LG 200.0 ACCESS FT
DATE 20080904 TIME 1530 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☐

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % MTD

EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER — Total
Type: SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3; ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E	INSTREAM VEG N A M V	PATTERN TM ME IM IR SI ST	
LB SHP U V S O	RB SHP U V S O	ISLANDS N O I F S AN	
TEXTURE F G C B R A	TEXTURE F G C B R A	BARS N SIDE DIAG MID SPAN BR	
RIP. VEG. N G S C D M W	RIP. VEG. N G S C D M	COUPLING DC PC CO	
STAGE INIT SHR PS YF MF NA	STAGE INIT SHR PS YF MF NA	CONFINEMENT EN CO FC OC UN N/A	

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

254

HABITAT QUALITY NFH

FSZ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Drainage does not exist. — ND

C:

255

SITE CARD

STREAM NAME (gaz.) (local) BLW BLFH-08-F
WATERSHED CODE 1801370400095200616391908060
ILP MAP # ILP # NID MAP # NID #
REACH # 2.2 SITE # 101 FIELD UTM 10 309890 5995642 6P3 SITE LG 200.0 ACCESS FT
DATE 20080904 TIME 1550 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % MTD

EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER — Total
Type: SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3; ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E	INSTREAM VEG N A M V	PATTERN TM ME IM IR SI ST	
LB SHP U V S O	RB SHP U V S O	ISLANDS N O I F S AN	
TEXTURE F G C B R A	TEXTURE F G C B R A	BARS N SIDE DIAG MID SPAN BR	
RIP. VEG. N G S C D M W	RIP. VEG. N G S C D M	COUPLING DC PC CO	
STAGE INIT SHR PS YF MF NA	STAGE INIT SHR PS YF MF NA	CONFINEMENT EN CO FC OC UN N/A	

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

256

HABITAT QUALITY NFH — stream becomes trickle without continuous scoured channel bed. Flow is limited to some scour pools, otherwise mostly overland flow.

FSZ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1159	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C:

C: NCD

257

SITE CARD

STREAM NAME (gaz.) (local) BLW BLFH-08-F
WATERSHED CODE 1801370400095200616501016093
ILP MAP # ILP # NID MAP # NID #
REACH # 2&3 SITE # 102 FIELD UTM 10 308155 5996204 6P3 SITE LG 400.0 ACCESS FT
DATE 20080905 TIME 0945 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % MTD

EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER — Total
Type: SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5

DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3; ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E	INSTREAM VEG N A M V	PATTERN TM ME IM IR SI ST	
LB SHP U V S O	RB SHP U V S O	ISLANDS N O I F S AN	
TEXTURE F G C B R A	TEXTURE F G C B R A	BARS N SIDE DIAG MID SPAN BR	
RIP. VEG. N G S C D M W	RIP. VEG. N G S C D M	COUPLING DC PC CO	
STAGE INIT SHR PS YF MF NA	STAGE INIT SHR PS YF MF NA	CONFINEMENT EN CO FC OC UN N/A	

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

258

HABITAT QUALITY NFH — many isolated depressions b/w drumlin-like ridges/hills — no outflows — no connectivity, no inflows

FSZ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1162	ST	X	No scale
D16	1163	ST	X	— ↓ —

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Depression with collected water @ western tip of blob
N side (OW)
W tip @ pt 297 width ~ 30-40m
E tip @ pt 298
2nd OW to the south ~ 30m parallel to the northern

C: likely nat NCW or W3
Drainage mismapped — apparently diverts into str 11221.
NA

259

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_F
WATERSHED CODE 1|8|0|3|7|4|0|0|0|9|5|2|0|0|6|3|9|0|0|8|0|6|0
ILP MAP # ILP # NID MAP # NID #
REACH # 5.1 SITE # 103 FIELD UTM 10|310362|5997018|GPS SITE LG 150|0 ACCESS FT
DATE 2|0|0|8|0|9|0|5 TIME 1|1|5|0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS
beav dam | aban ch | erdbk | avul | SWD | LWD | jam
01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

260

HABITAT QUALITY: NFH - drainage is a mixture of stunted channel sections with sporadic scoured bed & fluvial deposits with overlaid flow of mucky swale with flowing water & organic deposits. Lacks continuous scoured channel bed or fluvium — not a stream.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1164	ST	U	Back
D16	1165	ST	U	Back

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C — NCD

261

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_F
WATERSHED CODE
ILP MAP # 11220 ILP # NID MAP # NID #
REACH # 1 SITE # 104 FIELD UTM 10|310403|5997559|GPS SITE LG 100|0 ACCESS FT
DATE 2|0|0|8|0|9|0|5 TIME 1|2|4|0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS
beav dam | aban ch | erdbk | avul | SWD | LWD | jam
01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

262

HABITAT QUALITY: NFH

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C — Nothing found @ mapped location or 100 m vertical | C — ND

263

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_F
WATERSHED CODE 1|8|0|3|7|4|0|0|0|9|5|2|0|0|6|3|9|0|0|8|0|6|0
ILP MAP # ILP # NID MAP # NID #
REACH # 1 SITE # 105 FIELD UTM 10|310426|5997472|GPS SITE LG 100|0 ACCESS FT
DATE 2|0|0|8|0|8|0|5 TIME 1|3|0|0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS
beav dam | aban ch | erdbk | avul | SWD | LWD | jam
01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

264

HABITAT QUALITY: NFH — seepage through swale water flows overground within lower 100 m then sedges through — not fluvium or scoured channel bed — not a stream.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1166	ST	U	Back

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C — NCD

265

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_F
WATERSHED CODE 1|8|0|3|7|4|0|0|0|9|5|2|0|0|6|3|9|0|0|8|0|6|0
ILP MAP # ILP # NID MAP # NID #
REACH # 5.2 SITE # 106 FIELD UTM 10|310491|5997348|GPS SITE LG 200|0 ACCESS FT
DATE 2|0|0|8|0|9|0|5 TIME 1|3|1|0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd: T
CHANNEL WIDTH (m): 1.3 | 1.2 | 0.8 | 1.4 | 1.1 | 1.1
WETTED WIDTH (m): 1.1 | 1.1 | 0.8 | 1.2 | 1.1 | 0.8
RES. POOL DEPTH (m): M S O
W_b Dp (m): 0.1 | 0.2 | 0.2 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT %: AL | 4 | 7 | 7

EMS REQ #
TEMP 10. °C CON D. µS/cm
pH TURB. T M C
FLD SNS
BED MATERIAL Dominant C Subdom. F
D95 (cm) 25 D (cm) 4 Morph. CP

COVER Total A
Type SWD LWD B U DP OV IV
AMT S T T T N D T
LOC P P P C P P
CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS
beav dam | aban ch | erdbk | avul | SWD | LWD | jam
01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

266

HABITAT QUALITY: NFH — shallow HW R, isolated from any FB waters channelized only seasonal R likely anyway.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1167	ST	U	Back
-11-	1168	ST	U	-11-

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C — Becomes stream @ u/s location. Pools up from this ground @ NFH 10, 310531, 5997432. Nothing beyond this point | C

S6

267

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_G
WATERSHED CODE
ILP MAP # ILP # 11218
REACH # 1 SITE # 10.7 FIELD UTM 10 311372 5995856 GPS SITE LG 100 0 ACCESS FT
DATE 20 08 09 05 TIME 1415 AGENCY COI6 CREW MJ DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % MTD

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE
0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%
0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS
beavdam | aban ch | erdbk | avul | SWD | LWD | jam
01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

HABITAT QUALITY
NFH - evidence of multiwater runoff only → water collected in isolated mossy puddles - dry now - seepage - no scoured channel bed or any fluvial material

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1169	55	BD	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C
NCD
268
269

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_G
WATERSHED CODE
ILP MAP # ILP # 11216
REACH # 1 SITE # 10.8 FIELD UTM 10 311816 5995319 GPS SITE LG 300 0 ACCESS FT
DATE 20 08 09 05 TIME 1415 AGENCY COI6 CREW MJ DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % MTD

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE
0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%
0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS
beavdam | aban ch | erdbk | avul | SWD | LWD | jam
01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

HABITAT QUALITY
NFH

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C
No drainage present @ mapped location or 100 m rating
NCD
270
271

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_G
WATERSHED CODE
ILP MAP # ILP # 11217
REACH # 1 SITE # 10.9 FIELD UTM 10 311793 5995352 GPS SITE LG 200 0 ACCESS FT
DATE 20 08 09 05 TIME 1505 AGENCY COI6 CREW MJ DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % MTD

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE
0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%
0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS
beavdam | aban ch | erdbk | avul | SWD | LWD | jam
01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

HABITAT QUALITY
NFH

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C
Not any kind of drainage present @ mapped location or 100 m rating
NCD
272
273

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_G
WATERSHED CODE 1 8 P 3 7 4 9 0 0 9 5 2 0 5 6 2 1 9 0 5 2 2 4
ILP MAP # ILP # NID MAP # NID #
REACH # 1 SITE # 11.0 FIELD UTM 10 312508 5995585 GPS SITE LG 500 0 ACCESS FT
DATE 20 08 09 05 TIME 1545 AGENCY COI6 CREW MJ DJ FISH FORM Y ☒ N ☐

CHANNEL mthd
CHANNEL WIDTH (m) T 1.6 1.8 1.9 2.0 1.6 1.5 — AL
WETTED WIDTH (m) T 0.0 0.0 0.2 0.8 0 — 8 4
RES. POOL DEPTH (m) M 0.11 0.08 0.14 0.18 0.52 — 7
W_b Dp (m) 0.4 0.35 0.5 0.4 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % MTD

WATER
EMS REQ #
TEMP 11 °C T3 CON D. 100 µS/cm 54
pH TURB. T M L C 6.4
FLD SNS
BED MATERIAL Dominant C Subdom. G
D95 (cm) 70 D (cm) 20 Morph. CP

COVER Total N T S N T D N
Type SWD LWD B U DP OV IV
AMT
LOC C P P C
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE
0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%
0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS
beavdam | aban ch | erdbk | avul | SWD | LWD | jam
01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

HABITAT QUALITY
R - overall v. poor @ M&HF, stream fast & carrying fair amount of debris, pools generally short and do not provide sufficient protection from turbulent water. No S. However stream is passable and 2 pools @ upper reach can be inhabited permanently. Possible migratory route to much better hab in R2

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1170	55	U	Book
DIG	1171	55	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C
Mismapped on TRIM
(53)
274
275

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08_G ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 1|8|0|3|7|4|0|0|0|9|5|2|0|0|6|2|1|0|0|5|2|2|4
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 1 – FISH PERMIT # SM08-457412
DATE 20|08|09|05 to MM DD AGENCY C016 CREW MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
110			10 312508 5995785 GPS	EF 1	11	100	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
110	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

276

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	110	EF 1	1	1600	1630	71	20	2	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

1 Sampled only several isolated pools in the upper end of reach → although all reach dry

277

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_G
WATERSHED CODE 1|8|0|3|7|4|0|0|0|9|5|2|0|0|6|2|1|0|0|5|2|2|4
ILP MAP # ILP # NID MAP # NID #
REACH # 2 SITE # 111 FIELD UTM 10 312126 5995784 GPS SITE LG 150 | 0 ACCESS VA
DATE 20|08|09|05 TIME 1635 AGENCY C016 CREW MJ, DJ FISH FORM Y ☒ N ☐

CHANNEL

	mthd										
CHANNEL WIDTH (m)	T	1.4	1.2	1.5	0.9	1.5	1.0				
WETTED WIDTH (m)	T	0.3	1.0	0.9	0.9	0.7	0.7				
RES. POOL DEPTH (m)	MS	0.22	0.37	0.33	0.21						
W_b Dp (m)	0.3	0.3	0.2	0.3	STAGE D M H						

GRADIENT % AL 2 3 5

EMS REQ #
TEMP 10 °C 03 CON D. 100 µS/cm 56
pH TURB. T M L C SE
FLD SNS N
BED MATERIAL Dominant G Subdom. C
D95 (cm) 11 D (cm) 3 Morph. RP
No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	S	N	T	D	S	N
LOC	P	C		P	P	P	

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% → 2

LWD FNC N F C DIST C E
LB SHP U O S O
TEXTURE E C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NF

INSTREAM VEG N B M V
RB SHP U O S O
TEXTURE E C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NF

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | ex rf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			CV	1 | 11	T	R216 F1174	Barrier - pool w/s. caused by bad placement (CMP 500)	10 311994 5995817 GPS

278

HABITAT QUALITY
R - G - cover abundant & diverse LF may reduce qual'ty
S - G - abundant G & good holding
D - N - pools are too shallow

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
216	1172	45	U	Book
	1173		D	Book
	1174		U	Book - CV photo
	1175		X	No scale - pointing @ CV inlet

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Streams severely disturbed by pre-FPC logging practices
Streams accessible however unknown if is utilized by RB
Effects of logging still visible

C: Streams not mapped (S4)

279

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08_G ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 1|8|0|3|7|4|0|0|0|9|5|2|0|0|6|2|1|0|0|5|2|2|4
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 2 – FISH PERMIT # SM08-457412
DATE 20|08|09|05 to MM DD AGENCY C016 CREW MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
111			10 312126 5995784 GPS	EF 1	10	100	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
11	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

280

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	110	EF 1	1	1635	1655	176	150	0.5	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

1 Sampled several pools

281

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_G
WATERSHED CODE 1|8|0|3|7|4|0|0|0|9|5|2|0|0|6|2|1|0|0|3
ILP MAP # ILP # NID MAP # NID #
REACH # 4 SITE # 112 FIELD UTM 10 312825 5996949 GPS SITE LG 150 | 0 ACCESS FT
DATE 20|08|09|05 TIME 1740 AGENCY C016 CREW MJ, DJ FISH FORM Y ☒ N ☐

CHANNEL

	mthd										
CHANNEL WIDTH (m)	T	2.9	3.1	2.4	2.3	3.5	2.9				
WETTED WIDTH (m)	T	1.8	2.5	1.8	1.5	2.3	1.3				
RES. POOL DEPTH (m)	MS	0.22	0.21	0.56	0.18						
W_b Dp (m)	0.6	0.24	0.6	0.6	STAGE D M H						

GRADIENT % AL 3 2 2

EMS REQ #
TEMP 14 °C CON D. 120 µS/cm 56
pH TURB. T M C 60
FLD SNS Suspected algae on beads
BED MATERIAL Dominant G Subdom. C
D95 (cm) 18 D (cm) 10 Morph. RP
No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total M

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	D	S	S	T
LOC	P	C		C	P	P	P

CROWN CLOSURE: 0 | 1 | 2 → 2 | 3 | 4 | 5

LWD FNC N F A DIST C E
LB SHP U O S O
TEXTURE E C B R A
RIP. VEG. N G S D M W
STAGE INIT SHR PS YF MF NF

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE E C B R A
RIP. VEG. N G S D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | ex rf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM

282

HABITAT QUALITY
Overall excellent reservoir hab poss RB but isolated d/t falls barrier d/s.
No isolated fish population present w/s of falls
Extensively sampled in the past

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1176	55	U	Book
DIG	1177	55	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: S6

283

COMBINED FISH COLLECTION

GAZETTED NAME | (local) BLK BLFH-08-G | ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE 180-374900-95200-62190

WATERBODY ID | ILP MAP # | ILP # | SITE/LAKE CARD ATTACHED ☒ Y ☐ N

PROJECT ID | REACH # 4 | FISH PERMIT # SM08-45742

DATE 2008 09 05 to | AGENCY C016 | CREW MJ DJ | ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
112			10 312825 5996940 GP3	EF 1	14	120	L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
112	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

284

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	112	EF 1	1	1740	1800	248	150	2	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

285

SITE CARD

STREAM NAME (gaz.) | (local) BLK BLFH-08-H

WATERSHED CODE 180-374000-95200-62100-9178-1183

ILP MAP # | ILP # | NID MAP # | NID #

REACH # 2 | SITE # 113 | FIELD UTM 10 312139 5998788 GP3 | SITE LG 650 0 | ACCESS FT

DATE 2008 09 06 | TIME 1220 | AGENCY C016 | CREW MJ DJ | FISH FORM Y☐ N☒

CHANNEL	mthd						
CHANNEL WIDTH (m)	T	0.7	0.6	0.9	1.2	1.0	0.8
WETTED WIDTH (m)	T	0.7	0.5	0.8	1.0	1.0	0.8
RES. POOL DEPTH (m)	MS	0.13	0.17	0.14			

GRADIENT %: AL; 1 2; 2 2

W_b Dp (m) 0.3 0.25 0.2 0.3 | STAGE L (M) H | No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total: A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	S	T	N	S	T	D	N
LOC	P	P		P	P	P	

CROWN CLOSURE: 0 / 1 (1-20%) / (2) (21-40%) / 3 (41-70%) / 4 (71-90%) / 5 (>90%)

LWD FNC N (F) A | DIST C (E) | INSTREAM VEG (N) A M V

LB SHP (U) V S O | RB SHP (U) V S O

TEXTURE (F) G C B R A | TEXTURE (F) G C B R A

RIP. VEG. N G S (C) D M W | RIP. VEG. N G S (C) D M

STAGE INIT SHR PS YF (MF) NA | STAGE INIT (SHR) PS YF MF NA

EMS | TEMP °C | pH | REQ # | CON D. µS/cm | TURB. T M L (C) 6E

FLD SNS N

BED MATERIAL Dominant F | Subdom. C

D95 (cm) 16 | D (cm) 0.1 | Morph. RP

DISTURBANCE INDICATORS: 01 (beavdam) B1 (aban ch) B2 (erdbk) B3 (avul) D1 (SWD) D2 (LWD) D3 (jam) C1 (ex rif) C2 (no pl) C3 (elev br) C4 (mult ch) C5 (dis line) S1 (hom bd) S2 (finger) S3 (lg wdg) S4 (ex bar) S5 (ex bd scr)

PATTERN TM ME IM (IR) SI ST

ISLANDS (N) O I F S AN

BARS (N) SIDE DIAG MID SPAN BR

COUPLING (DC) PC CO

CONFINEMENT EN CO FC OC (UN) N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

286

HABITAT QUALITY:
NFH - flows into documented NFB stream.
Tiny trickle, borderline stream/NCD
Doesn't contain suitable RB hab potential, No S or O.

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1178	ST	U	Book
DIG	1179	ST	D	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS:
Few LWF and v. short (~1m) OLF.
Channel scoured

S6

287

SITE CARD

STREAM NAME (gaz.) | (local) BLK BLFH-08-H

WATERSHED CODE 180-374000-95200-96210-0917-81183

ILP MAP # | ILP # | NID MAP # | NID #

REACH # 3 | SITE # 114 | FIELD UTM 10 312553 5999145 GP3 | SITE LG 300 0 | ACCESS FT

DATE 2008 09 06 | TIME 1245 | AGENCY C016 | CREW MJ DJ | FISH FORM Y☐ N☒

CHANNEL WIDTH (m) | WETTED WIDTH (m) | RES. POOL DEPTH (m) | W_b Dp (m) | STAGE L M H | (No Vis. Ch.) ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total | Type SWD LWD B U DP OV IV | AMT | LOC | CROWN CLOSURE 0 1 2 3 4 5

LWD FNC N F A | DIST C E | INSTREAM VEG N A M V | LB SHP U V S O | RB SHP U V S O | TEXTURE F G C B R A | RIP. VEG. N G S C D M W | STAGE INIT SHR PS YF MF NA

EMS | TEMP °C | pH | REQ # | CON D. µS/cm | TURB. T M L C | FLD SNS | BED MATERIAL Dominant | Subdom. | D95 (cm) | D (cm) | Morph.

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 | PATTERN TM ME IM IR SI ST | ISLANDS N O I F S AN | BARS N SIDE DIAG MID SPAN BR | COUPLING DC PC CO | CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

288

HABITAT QUALITY:
NFH

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1180	ST	U	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS:
At site UTM stream becomes NCD → channel becomes disc, puddling up of OLF begin to prevail; flow scarce & discont, scoured channel bed discont as well. Flow seasonal or after prolonged precipitation

Drainage located more to the west than mapped

NCD

289

SITE CARD

STREAM NAME (gaz.) | (local) BLK BLFH-08-H

WATERSHED CODE

ILP MAP # | ILP # 11205 | NID MAP # | NID #

REACH # 2 | SITE # 115 | FIELD UTM 10 314136 5998845 GP3 | SITE LG 550 0 | ACCESS FT

DATE 2008 09 06 | TIME 1350 | AGENCY C016 | CREW MJ DJ | FISH FORM Y☐ N☒

CHANNEL WIDTH (m) | WETTED WIDTH (m) | RES. POOL DEPTH (m) | W_b Dp (m) | STAGE L M H | (No Vis. Ch.) ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total | Type SWD LWD B U DP OV IV | AMT | LOC | CROWN CLOSURE 0 1 2 3 4 5

LWD FNC N F A | DIST C E | INSTREAM VEG N A M V | LB SHP U V S O | RB SHP U V S O | TEXTURE F G C B R A | RIP. VEG. N G S C D M W | STAGE INIT SHR PS YF MF NA

EMS | TEMP °C | pH | REQ # | CON D. µS/cm | TURB. T M L C | FLD SNS | BED MATERIAL Dominant | Subdom. | D95 (cm) | D (cm) | Morph.

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 | PATTERN TM ME IM IR SI ST | ISLANDS N O I F S AN | BARS N SIDE DIAG MID SPAN BR | COUPLING DC PC CO | CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

290

HABITAT QUALITY:
NFH - seepage without any scour or fluvium

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1181	ST	U	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS:
So far nothing from C-B
Seepage ~100 m to W
@ pt 310 becomes stream

NCD

291

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_H
WATERSHED CODE
ILP MAP # ILP # 11205 NID MAP # NID #
REACH # 1 SITE # 116 FIELD UTM 10 314219 5998638 GPS SITE LG 250.0 ACCESS FT
DATE 29.08.08.06 TIME 1.41.15 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd

CHANNEL WIDTH (m)	T	0.4	0.3	0.6	0.7	0.4	0.5			
WETTED WIDTH (m)	T	0.3	0.3	0.5	0.5	0.4	0.3			
RES. POOL DEPTH (m)	M	0.08	0.06							

W_b Dp (m) 0.1 0.1 0.12 M STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

AL			
14	11		
15	12		

EMS **REQ #**
TEMP 11 °C **CON D.** µS/cm
pH **TURB.** T M L C

FLD SNS N
BED MATERIAL Dominant G Subdom. C
D95 (cm) 11 **D (cm)** 5 **Morph.** CP

COVER Total T

	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	T	S	D	N
LOC	P	P		P	P	P	

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

01	B1	B2	B3	D1	D2	D3
beav/dam	aban ch	erdbk	avul	SWD	LWD	jam

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr

LWD FNC N F A **DIST** C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MP NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MP NA

PATTERN TM ME IM IR SI ST
ISLANDS N 0 I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

292

HABITAT QUALITY Tiny & moderately steep trickle, drains to NFB stream would not support any fish

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1182	ST	U	Book
↓	1183	↓	D	↓

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Fans out @ gully base

S6

293

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_H
WATERSHED CODE 1803749000952000911900352074601202
ILP MAP # ILP # NID MAP # NID #
REACH # 6 SITE # 117 FIELD UTM 10 314289 5998641 GPS SITE LG 200.0 ACCESS FT
DATE 29.08.08.06 TIME 1.45.10 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.0	1.0	0.8	0.8	1.1	0.7			
WETTED WIDTH (m)	T	0.9	1.0	0.8	0.7	0.9	0.5			
RES. POOL DEPTH (m)	M	0.23	0.19	0.13	0.2					

W_b Dp (m) 0.2 0.25 0.24 M STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

AL			
3	1		
2	2.5		

EMS **REQ #**
TEMP 11 °C **CON D.** µS/cm
pH **TURB.** T M D C

FLD SNS None
BED MATERIAL Dominant F Subdom. C
D95 (cm) 14 **D (cm)** 1 **Morph.** RP

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	S	D	T	N
LOC	P	P		P	P	P	

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

01	B1	B2	B3	D1	D2	D3
beav/dam	aban ch	erdbk	avul	SWD	LWD	jam

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr

LWD FNC N F A **DIST** C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MP NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MP NA

PATTERN TM ME IM IR SI ST
ISLANDS N 0 I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

294

HABITAT QUALITY Boreal/fine stream/NCD channel scoured but lots of org material in channel bed, not suitable for RB and does not contain other species. Extensively sampled in d/s reaches.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1184	ST	U	Book
DIG	1185	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Visited to confirmed drainage status

S6

295

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_H
WATERSHED CODE 1803749000952000911900352074601202
ILP MAP # ILP # NID MAP # NID #
REACH # 7 SITE # 118 FIELD UTM 10 314168 5998609 GPS SITE LG 200.0 ACCESS FT
DATE 29.08.08.06 TIME 1.52.0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd

CHANNEL WIDTH (m)										
WETTED WIDTH (m)										
RES. POOL DEPTH (m)										

W_b Dp (m) STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

EMS **REQ #**
TEMP °C **CON D.** µS/cm
pH **TURB.** T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) **D (cm)** **Morph.**

COVER Total

	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

01	B1	B2	B3	D1	D2	D3
beav/dam	aban ch	erdbk	avul	SWD	LWD	jam

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr

LWD FNC N F A **DIST** C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST
ISLANDS N 0 I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

296

HABITAT QUALITY NCH

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1186	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Becomes NCD @ site UTM
Fluvial & scoured channel bed becomes discontinuous

NCD

297

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_H
WATERSHED CODE
ILP MAP # ILP # 11206 NID MAP # NID #
REACH # 1,2,3 SITE # 119 FIELD UTM 10 312600 5998383 GPS SITE LG 13,000 ACCESS FT
DATE 29.08.08.06 TIME 1.16.30 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd

CHANNEL WIDTH (m)	T	0.8	1.5	0.8	1.1	1.2	0.9			
WETTED WIDTH (m)	T	0.8	1.2	0.8	0.7	0.6	0.8			
RES. POOL DEPTH (m)	M	0.4	0.2	0.4	0.19					

W_b Dp (m) 0.2 0.4 0.2 0.2 STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

4	8		
4	3		

EMS **REQ #**
TEMP 12 °C **CON D.** µS/cm
pH **TURB.** T M L C

FLD SNS N
BED MATERIAL Dominant F Subdom. C
D95 (cm) 13 **D (cm)** 4 **Morph.** CP

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	S	D	S	
LOC	P	P		P	P	P	

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

01	B1	B2	B3	D1	D2	D3
beav/dam	aban ch	erdbk	avul	SWD	LWD	jam

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr

LWD FNC N D A **DIST** C D
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST
ISLANDS N 0 I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

298

HABITAT QUALITY Sizable R habs but inaccessible d/t barrier in lower stream d/s. No S or O.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1187	ST	U	Book
DIG	1188	ST	D	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: NW originate in small W stream all the way down
bordering stream
NCD @ 318 d/s to 319
Stream very woody has sped up by V. old logging along

C: its course 50 yrs ago

S6

299

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_DB_E

WATERSHED CODE 180374000195200691999

ILP MAP # ILP # NID MAP # NID #

REACH # 2 SITE # 120 FIELD UTM 10 306021 5994252 GPS SITE LG 200.0 ACCESS FT

DATE 20080903 07 TIME 1000 AGENCY C016 CREW MJ DJ FISH FORM Y X N

CHANNEL mthd

CHANNEL WIDTH (m)	T	2.3	2.3	2.2	2.7	2.5	1.9		
WETTED WIDTH (m)	T	1.1	1.0	1.3	1.1	0.4	0.4		
RES. POOL DEPTH (m)	MS	0.48	0.14	0.23	0.31				
W_b Dp (m)	0.55	0.7	1.08	0.8					

STAGE D M H

GRADIENT %: AL 4 2 5 6

EMS

TEMP 9 °C T3

pH

REQ #

CON D. 90 µS/cm 54

TURB. T M L D GE

FLD SNS N

BED MATERIAL Dominant R Subdom. C

D95 (cm) 400 D (cm) 18 Morph. CP

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total M

	SWD	LWD	B	U	DP	OV	IV
AMT	T	S	D	N	S	T	N
LOC	P	P	P		P	P	

CROWN CLOSURE: 0 1-20% 21-40% 41-70% 71-90% >90%

DISTURBANCE INDICATORS: beaver dam, aban ch, erdbk, avul, SWD, LWD, jam; ex rif, no pl, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr

01	B1	B2	B3	D1	D2	D3

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC N D A **DIST** D E **INSTREAM VEG** N A M V

LB SHP U N S O **RB SHP** U N S O

TEXTURE F G C B A **TEXTURE** F G C B A

RIP. VEG. N G S C D M W **RIP. VEG.** N G C D M

STAGE INIT SHR PS YF MF NA **STAGE** INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			F	1.5	O	R D16 F 1189	impassable → mark EF4	10 306021 5994252 GPS
						R__ F__	followed by another 1m	
						R__ F__	5m further u/s	
						R__ F__		

HABITAT QUALITY: NFH – no fish potential right above barrier, channel over R with highly movable material. Suitable only @ LIF. No S, D – only one suitable pool found. LSG u/s sampled in 1997 → NFC @ all 4 sites but barrier was not ID'd. Apparently no isolated fish population u/s of barrier

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1189	ST	U	Person → tools photo
	1190		U	Book
	1191		D	Book
D16	1192	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

56

301

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08_E ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE 180374000195200691999

WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED X Y ☐ N

PROJECT ID REACH # 2.2 ? - FISH PERMIT # SM08-45742

DATE 20080903 07 to AGENCY C016 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
120			10 306021 5994252 GPS	EF 1	9	90	C	
120B			10 306030 5994250 GPS	EF 1	9	90	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
120	EF 1	1	NFC			0				
120AS	EF 1	1	RB			7	89	149	R	

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	120	EF 1	1	1005	1035	193	200	1	0	400	80	6	SR	12B
1	120AS	EF 1	1	1000	1000	11	2	2	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
1	120AS	EF 1	1	RB	101											R__ F__
1					107											R__ F__
1					89											R__ F__
1					93											R__ F__
1					124											R__ F__
1					149											R__ F__
1					112											R__ F__

All in plunge pool @ Falls → seine below to confirm fish presence

303

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_DB_E

WATERSHED CODE 180374000195200691999

ILP MAP # ILP # NID MAP # NID #

REACH # 2 SITE # 121 FIELD UTM 10 305968 5995705 GPS SITE LG 300.0 ACCESS FT

DATE 20080903 07 TIME 1245 AGENCY C016 CREW MJ DJ FISH FORM Y X N

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.7	1.8	2.1	2.0	2.1	1.8		
WETTED WIDTH (m)	T	0.9	1.2	1.8	1.3	1.3	0.8		
RES. POOL DEPTH (m)	MS	0.28	0.28	0.23	0.46	0.42	0.29		
W_b Dp (m)	0.26	0.34	0.36	0.33					

STAGE D M H

GRADIENT %: AL 1 2 4 3

EMS

TEMP 9 °C T3

pH

REQ #

CON D. 110 µS/cm 54

TURB. T M C GE

FLD SNS N

BED MATERIAL Dominant G Subdom. C

D95 (cm) 12 D (cm) 7 Morph. RP

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
AMT	T	N	N	S	D	S	N
LOC	P			P	P	P	

CROWN CLOSURE: 0 1 2 3 4 5

DISTURBANCE INDICATORS: beaver dam, aban ch, erdbk, avul, SWD, LWD, jam; ex rif, no pl, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr

01	B1	B2	B3	D1	D2	D3

C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC N D F A **DIST** C E **INSTREAM VEG** N A M V

LB SHP U V S O **RB SHP** U V S O

TEXTURE F G C B R A **TEXTURE** F G C B R A

RIP. VEG. N G S C D M W **RIP. VEG.** N G S C D M

STAGE INIT SHR PS YF MF NA **STAGE** INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST

ISLANDS N O I F S AN

BARS N SIDE DIAG MID SPAN BR

COUPLING DC PC CO

CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

304

HABITAT QUALITY: Excellent potential RB habitat year round. S – G – mostly G in substrate with uneven heights. D – many pools – some seems to be sufficient; R – excellent – long, deep & frequent pools. Habitat isolated d/t falls in parent stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1193	ST	U	Book
~~D16~~	1194	~~ST~~	~~D~~	~~Book~~
D16	1195	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C

56

305

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08_E ☐ LAKE ☒ STREAM ☐ WETLAND

WATERSHED CODE 180374000995200696900962498

WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED X Y ☐ N

PROJECT ID REACH # 2 - FISH PERMIT # SM08-45742

DATE 20080903 07 to AGENCY C016 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
121			10 305968 5995705 GPS	EF 1	9	110	L	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
121	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

306

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	121	EF 1	1	1245	1300	403	300	1	0	400	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

307

SITE CARD

STREAM NAME (gaz.) (local) BLK B1FH-08_E
WATERSHED CODE
ILP MAP # ILP # 11225
REACH # 2 SITE # 122 FIELD UTM 10 306737 5996152 GPS SITE LG 100.0 ACCESS FT
DATE 12/01/08/09/07 TIME 1417.0 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☐

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % mthd

WATER: EMS ☐ TEMP °C CON D. µS/cm pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Type SWD LWD B U DP OV IV; AMT; LOC; Total
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY:
DISTURBANCE INDICATORS: beavdam abandch endbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3; ex inf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

308

HABITAT QUALITY: NFH - nothing but seepage through gentle swale - no scoured channel bed or fluvium

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PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1197	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

309

SITE CARD

STREAM NAME (gaz.) (local) BLK B1FH-08_E
WATERSHED CODE
ILP MAP # ILP # 11224
REACH # 1 SITE # 123 FIELD UTM 10 306729 5995628 GPS SITE LG 100.0 ACCESS FT
DATE 12/01/08/09/07 TIME 1510 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % mthd

WATER: EMS ☐ TEMP °C CON D. µS/cm pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Type SWD LWD B U DP OV IV; AMT; LOC; Total
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY:
DISTURBANCE INDICATORS: beavdam abandch endbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3; ex inf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

310

HABITAT QUALITY: NFH - moist depression with visible dry rivulets difficult to determine its course, no scoured channel bed or fluvium

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1198	ST	X	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

311

SITE CARD

STREAM NAME (gaz.) (local) BLK B2FH-08_E
WATERSHED CODE 1 1 8 P 3 7 4 1 0 0 0 1 9 5 1 2 0 0 1 6 8 1 0 1 0 1 5 5 1 6 1 9 5
ILP MAP # ILP # NID MAP # NID #
REACH # 1 SITE # 124 FIELD UTM 10 306551 5995633 GPS SITE LG 450.0 ACCESS FT
DATE 12/01/08/09/07 TIME 1415 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % mthd

WATER: EMS ☐ TEMP °C CON D. µS/cm pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Type SWD LWD B U DP OV IV; AMT; LOC; Total
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY:
DISTURBANCE INDICATORS: beavdam abandch endbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3; ex inf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

312

HABITAT QUALITY: NFH - drainage lack continuous scoured channel bed or fluvial deposits. Mostly OLF with barely removed duff layer spread all over gully - scoured reach present occasionally with exposed cobbles. Not a stream as per definition

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1199	ST	U	Book
DIG	1200	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

313

SITE CARD

STREAM NAME (gaz.) (local) BLK B1FH-08_E
WATERSHED CODE
ILP MAP # ILP # 11226
REACH # 1 SITE # 125 FIELD UTM 10 306171 5996010 GPS SITE LG 150.0 ACCESS FT
DATE 12/01/08/09/07 TIME 1515 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % mthd

WATER: EMS ☐ TEMP °C CON D. µS/cm pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Type SWD LWD B U DP OV IV; AMT; LOC; Total
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY:
DISTURBANCE INDICATORS: beavdam abandch endbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3; ex inf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

314

HABITAT QUALITY: NFH - drainage has NO continuous scoured channel bed or fluvial deposits - not a stream. Isolated channelized sections w/in valley floor or isolated dry gullies

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PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1202	ST	D	Book
DIG	1201	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

315

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_G
WATERSHED CODE
ILP MAP # ILP # 11227 NID MAP # NID #
REACH # 1 SITE # 126 FIELD UTM 10 706110 5996067 6F3 SITE LG 100 0 ACCESS FT
DATE 2 0 1 8 0 9 0 7 TIME 1 5 3 0 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1 2 3 4 5 (0 / 1-20% / 21-40% / 41-70% / 71-90% / >90%)
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 (beav dam / aban ch / erdbk / avul / SWD / LWD / jam)
ex rif / no pl / elev br / mult ch / dis line / horn bd / finger / lg wdg / ex bar / ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

316

HABITAT QUALITY: NFH

FSZ☐

PHOTO DOCUMENTATION
ROLL # | # | FOC LG | DIR | COMMENTS
No photos

WILDLIFE
GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS
C: Nothing found @ mapped location or 100 m readings
C: ND

317

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_B
WATERSHED CODE
ILP MAP # ILP # 9102 NID MAP # NID #
REACH # 1 SITE # 127 FIELD UTM 9 680882 5993114 6F3 SITE LG 200 0 ACCESS FT
DATE 2 0 1 8 0 9 0 8 TIME 0 9 3 0 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1 2 3 4 5 (0 / 1-20% / 21-40% / 41-70% / 71-90% / >90%)
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 (beav dam / aban ch / erdbk / avul / SWD / LWD / jam)
ex rif / no pl / elev br / mult ch / dis line / horn bd / finger / lg wdg / ex bar / ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

318

HABITAT QUALITY: NFH

FSZ☐

PHOTO DOCUMENTATION
ROLL # | # | FOC LG | DIR | COMMENTS
No photos

WILDLIFE
GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS
C: Nothing found @ mapped location or 100 m readings
C: ND

319

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_F3
WATERSHED CODE
ILP MAP # ILP # 9103 NID MAP # NID #
REACH # 1 SITE # 128 FIELD UTM 9 680488 5993399 6F3 SITE LG 100 0 ACCESS FT
DATE 2 0 1 8 0 9 0 8 TIME 1 0 1 0 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1 2 3 4 5 (0 / 1-20% / 21-40% / 41-70% / 71-90% / >90%)
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 (beav dam / aban ch / erdbk / avul / SWD / LWD / jam)
ex rif / no pl / elev br / mult ch / dis line / horn bd / finger / lg wdg / ex bar / ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

320

HABITAT QUALITY: NFH

FSZ☐

PHOTO DOCUMENTATION
ROLL # | # | FOC LG | DIR | COMMENTS
No photos

WILDLIFE
GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS
C: Nothing found @ mapped location or 100 m readings
C: ND

321

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFU_08_A
WATERSHED CODE 1 8 0 3 1 7 1 7 0 0 0 9 5 2 0 0 1 7 9 4 1 0 0 4 3 6 0 9
ILP MAP # ILP # NID MAP # NID #
REACH # 3 SITE # 129 FIELD UTM 9 682643 5993102 6F3 SITE LG 200 0 ACCESS FT
DATE 2 0 1 8 0 9 0 8 TIME 1 0 2 5 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m) 1.3 1.1 1.1 1.2 1.4 1.5
WETTED WIDTH (m) 0.9 1.0 0.9 1.2 1.1 1.3
RES. POOL DEPTH (m) MS 0 0
W_b Dp (m) 0.2 0.2 0.2 0.2 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT % AL 1 1

EMS REQ #
TEMP 9 °C 13 CON D. µS/cm
pH TURB. T M L 20 56
FLD SNS N
BED MATERIAL Dominant F Subdom. C
D95 (cm) 45 D (cm) 1 Morph. RP

COVER Total 4
Type SWD LWD B U DP OV IV
AMT S N S J N D N
LOC P P P
CROWN CLOSURE 0 1 2 (3) 4 5 (0 / 1-20% / 21-40% / 41-70% / 71-90% / >90%)
LWD FNC (N) F A DIST C E
LB SHP U (N) S O
TEXTURE (F) G (C) B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

INSTREAM VEG (N) A M V
RB SHP U (N) S O
TEXTURE (F) G (C) B R A
RIP. VEG. N G (S) C D M
STAGE INIT SHR PS YF MF (NA)

DISTURBANCE INDICATORS 01 B1 B2 B3 (D1) D2 D3 (beav dam / aban ch / erdbk / avul / SWD / LWD / jam)
ex rif / (no pl) / elev br / mult ch / dis line / horn bd / finger / lg wdg / ex bar / ex bd scr
C1 (C2) C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM (IR) SI ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING (OC) PC CO
CONFINEMENT EN CO FC (OC) UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___
R___ F___
R___ F___
R___ F___

322

HABITAT QUALITY: NFH- shallow creek with bed filled by organic material, water barely flowing. No S or O not observed. Not navigable by kayak, very low and inaccessible d/t lack of channel d/s

FSZ☐

PHOTO DOCUMENTATION
ROLL # | # | FOC LG | DIR | COMMENTS
D16 | 1206 | ST | D | Rock
D16 | 1207 | ST | D | Boats

WILDLIFE
GROUP | WILDLIFE OBSERVATIONS | GROUP | WILDLIFE OBSERVATIONS

COMMENTS
C:
C: S6

323

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_A
WATERSHED CODE 1|8|0|2|7|4|9|0|0|9|5|2|0|0|7|9|4|0|0|4|3|6|0
ILP MAP # ILP # NID MAP # NID #
REACH # 4 SITE # 130 FIELD UTM 9 682623 5993587 GP3 SITE LG 280.0 ACCESS FT
DATE 2|0|0|8|0|9|0|8 TIME 1410 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
GRADIENT %
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: beavdam, aban ch, endbk, avul, SWD, LWD, jam : 01 B1 B2 B3 D1 D2 D3
ex rif, no pt, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd ad : C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

HABITAT QUALITY: NFH - stream looses its definition @ this point + scoured channel bed becomes discontinuous & disappears altogether ~70 m further u/s. Valley has moist bottom vegetation by tributaries & some signs of meltwater runoff with occasional scour. Banding more pronounced @ UTM 682727, 5993651 with defined channel, scour & fluvium for ~2>3 meters R

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1208	ST	BD	Book
DIG	1209	ST	BD	book
DIG	1210	ST	U	book
DIG	1211	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: ☐ pt 334 becomes NCD? seeiw → New Reach (UTM 9, 682751, 5993809)
C:
NCD/S6/NCD
324 325

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_A
WATERSHED CODE
ILP MAP # ILP # 9100 NID MAP # NID #
REACH # 1 SITE # 131 FIELD UTM 9 682272 5993807 GP3 SITE LG 120.0 ACCESS FT
DATE 2|0|0|8|0|9|0|8 TIME 1212|0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
GRADIENT %
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: beavdam, aban ch, endbk, avul, SWD, LWD, jam : 01 B1 B2 B3 D1 D2 D3
ex rif, no pt, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd ad : C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

HABITAT QUALITY: NFH - isolated multi-channels with no fluvium all over the place, no continuity

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1212	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: C:
NCD
326 327

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_A
WATERSHED CODE
ILP MAP # ILP # 9101 NID MAP # NID #
REACH # 1 SITE # 132 FIELD UTM 9 682158 5994065 GP3 SITE LG 120.0 ACCESS FT
DATE 2|0|0|8|0|9|0|8 TIME 1250 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
GRADIENT %
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: beavdam, aban ch, endbk, avul, SWD, LWD, jam : 01 B1 B2 B3 D1 D2 D3
ex rif, no pt, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd ad : C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

HABITAT QUALITY: NFH

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PHOTO DOCUMENTATION: No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Drainage does not exist C:
NCD
328 329

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_A
WATERSHED CODE
ILP MAP # ILP # 9001 NID MAP # NID #
REACH # 1 SITE # 133 FIELD UTM 9 683530 5993381 GP3 SITE LG 300.0 ACCESS FT
DATE 2|0|0|8|0|9|0|8 TIME 1419 AGENCY CO16 CREW MJ, DJ FISH FORM Y☒ N☐

CHANNEL mthd
CHANNEL WIDTH (m) T 1.6 1.0 1.2 1.5 1.6 1.4
WETTED WIDTH (m) T 1.3 0.9 0.5 0.6 0.8 1.3
RES. POOL DEPTH (m) MS 0.16 0.1 0.32
W_b Dp (m) 0.3 0.3 0.2 STAGE (D) M H
GRADIENT % AL 1 0.5 2 1
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total A
Type SWD LWD B U DP OV IV
AMT D S T T T S
LOC P P P P P P
CROWN CLOSURE 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 1 2 (3) 4 5
LWD FNC N F A DIST C (E)
LB SHP U (N) S O
TEXTURE (F) G (C) B R A
RIP. VEG. N G S (C) D M W
STAGE INIT SHR PS YF (MF) NA
INSTREAM VEG N (A) (M) V
RB SHP U (N) S O
TEXTURE (F) G (C) B R A
RIP. VEG. N G S (C) D M
STAGE INIT SHR PS (YF) MF NA

EMS REQ #
TEMP 12 °C (T3) CON D. 140 µS/cm S4
pH 7 TURB. T M L (C) S5
FLD SNS N
BED MATERIAL Dominant F Subdom. C
D95 (cm) 18 D (cm) 2 Morph. R P
DISTURBANCE INDICATORS: beavdam, aban ch, endbk, avul, SWD, LWD, jam : 01 B1 B2 B3 D1 D2 D3
ex rif, no pt, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd ad : C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM (IR) SI ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING (DC) PC CO
CONFINEMENT EN CO FC (OC) UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

HABITAT QUALITY: Overall V. poor RB habitat stream bed filled with organic matter & sometimes dense ISV, water boardy is flowing Banks trampled by cattle & massive presence in channel Apparently water has no energy to flush org debris Not preferable RB hab. No S or D observed Section of overbent flow - borderline stream / NCD

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PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1213	ST	U	Book
DIG	1214	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: C:
S6
330 331

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK BLFH_08_A ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 9001 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # - FISH PERMIT # SU 08-45742
DATE 21010810191018 to MM DD AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
133			9 683580 5993381 6P3	EF 1	12	140	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
133	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

332

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	133	EF 1	1	1415	1440	142	300	1	0	300	80	6	SR	12R

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

333

SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH_08_D
WATERSHED CODE 1810370100095120071210024141312691
ILP MAP # ILP # NID MAP # NID #
REACH # 1 SITE # 134 FIELD UTM 9 695560 5993547 6P3 SITE LG 200 0 ACCESS FT
DATE 21010810908 TIME 1610 15 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% → 0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

GRADIENT % mthd

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd soil | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

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HABITAT QUALITY: NFH - some isolated scour & fluvial substrate present but lacks continuity - not a stream as per definition

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PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1215	ST	U	Book
DIG	1216	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

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SITE CARD

STREAM NAME (gaz.) (local) BLK BLFH-08_C
WATERSHED CODE 1810371410091210071210029910
ILP MAP # ILP # NID MAP # NID #
REACH # 5 SITE # 135 FIELD UTM 9 694859 5996756 6P3 SITE LG 100 0 ACCESS FT
DATE 21010810919 TIME 1210 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% → 0 1 2 3 4 5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

GRADIENT % mthd

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd soil | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

336

HABITAT QUALITY: NFH - flooded swale with no scoured channel bed, channel or flow - not a stream. Water stagnant, puddles up in depressions u/m swale

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1225	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

337

SITE CARD

STREAM NAME (gaz.) (local) BLK SFH_2008_T13 STR AA-R
WATERSHED CODE 4160081170104391061619024901961410
ILP MAP # ILP # NID MAP # NID #
REACH # 4 SITE # 136 FIELD UTM 9 695156 6112086 6P3 SITE LG 400 3 ACCESS FT
DATE 21010810117 TIME 1010 AGENCY CO16 CREW MJ DJ FISH FORM Y☒ N☐

CHANNEL mthd

	T	1	2	3	4	5	6	7	8	9
CHANNEL WIDTH (m)	T	4.1	3.6	3.5	3.4	3.8	3.5	3.9		
WETTED WIDTH (m)	T	2.2	3.4	1.9	3.2	2.8	1.8			
RES. POOL DEPTH (m)	M	0.24	0.33	0.31	0.55	0.29	0.36	0.39		
W_b Dp (m)	0.38	0.46	0.41	0.42	STAGE D M H					

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	S	T	T	D	E	N
LOC	P	P	P	P	P	P	

LWD FNC N F (A) DIST C (E)
LB SHP U (N) S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% → 0 1 2 3 (4) 5

INSTREAM VEG N (A) M V
RB SHP U (N) S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M
STAGE INIT SHR PS YF MF (NA)

GRADIENT % AL 2 1 1 1

WATER
EMS REQ #
TEMP 10 °C T3 CON D. 160 µS/cm 54
pH TURB. T M L (O) 68
FLD SNS N
BED MATERIAL Dominant G Subdom. F
D95 (cm) 6 D (cm) 6 Morph. RP RUN

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd soil | C1 C2 C3 (C4) C5 S1 S2 S3 S4 S5
PATTERN TM ME IM (SI) ST
ISLANDS N (O) I F S AN
BARS N SIDE (DIAG) MID SPAN BR
COUPLING (DC) PC CO
CONFINEMENT EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

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HABITAT QUALITY: R - exc - v. abundant & good cover among long & frequent pools
S - [illegible] - mostly G with ~5% fines, holding good - fair abundant
D - F - some pools may be insufficient

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PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1226	ST	U	
DIG	1227	ST	D	

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: In Blk CW 3.2, 3.5, 3.6, 3.5, 3.5, 3.2
Wtr Block more SI channel more incised & confined substrate slightly larger; stream steeper ~4%

SB

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COMBINED FISH COLLECTION

GAZETTED NAME: BLK. SFH. 2008_T13 (local) AA-R1 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE: 46 09 81 17 04 39 00 01 61 60 02 49 09 16 40
WATERBODY ID: ILP MAP #: ILP #: SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID: REACH #: FISH PERMIT # SM08-45742
DATE: 2008 09 17 to: AGENCY: CO16 CREW: MJ, DJ ☐ RE-SAMPLE

SITE/METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
136			9 645156 6112086 6P3		10	160	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
136	EF 1.1	1	CT	F		6	33	39	R	
				J		4	57	78	R	

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	136	EF 1.1	1	1005	1010	31	20	1.5	D	300	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
	136	EF 1.1	1	CT	38											R__ F__
					34											R__ F__
					39											R__ F__
					33											R__ F__
					78											R__ F__
					33											R__ F__
					57											R__ F__
					63											R__ F__
					72											R__ F__
					35											R__ F__

Fairly abundant fish.

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SITE CARD

STREAM NAME (gaz.): Unnamed (local): Fulton 21, 1 Rich
WATERSHED CODE:
ILP MAP #: ILP #: 40277 NID MAP #: NID #:
REACH #: 2 SITE #: 137 FIELD UTM: 9 671243 6083487 6P3 SITE LG: 150 0 ACCESS: V 4
DATE: 2008 09 17 TIME: 1415 AGENCY: CO16 CREW: MJ, DJ FISH FORM: Y ☐ N ☒

CHANNEL (mtnd)
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT % (MTD)

COVER Total
Type: SWD LWD B U DP OV IV
AMT:
LOC:
LWD FNC: N F A DIST: C E
LB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA
CROWN CLOSURE: 0 1-20% 21-40% 41-70% 71-90% >90% — 0 1 2 3 4 5
INSTREAM VEG: N A M V
RB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M
STAGE: INIT SHR PS YF MF NA

WATER
EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mtnd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(342)

HABITAT QUALITY
NFH - seepage from small H on u/s side of road (N side) — isolated muddy puddles, scattered occasionally. No continuous scoured channel bed, channel or flowing

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DG	1228	ST	BD	Book
DG	1229	ST	U	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: X: my UTM 9 671179 6083528
NCD

(343)

SITE CARD

STREAM NAME (gaz.): BLK SFH-08_T10 (local): SFH AA-R1
WATERSHED CODE: 48 09 51 29 00
ILP MAP #: ILP #: NID MAP #: NID #:
REACH #: 2 SITE #: 138 FIELD UTM: 9 652865 6111016 6P3 SITE LG: 950 0 ACCESS: FT
DATE: 2008 09 17 TIME: 1115 AGENCY: CO16 CREW: MJ, DJ FISH FORM: Y ☐ N ☒

CHANNEL (mtnd)
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT % (MTD)

COVER Total
Type: SWD LWD B U DP OV IV
AMT:
LOC:
LWD FNC: N F A DIST: C E
LB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA
CROWN CLOSURE: 0 1-20% 21-40% 41-70% 71-90% >90% — 0 1 2 3 4 5
INSTREAM VEG: N A M V
RB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M
STAGE: INIT SHR PS YF MF NA

WATER
EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mtnd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

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HABITAT QUALITY
NFH - pretty straight through DC & Upper isolated puddles of water, no flowing or continuity, no scoured beds

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PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DG	1230	ST	X	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
NCD

(345)

SITE CARD

STREAM NAME (gaz.): BLK SFH 2008_T11 (local): AA-R1
WATERSHED CODE: 48 09 50 79 00
ILP MAP #: ILP #: NID MAP #: NID #:
REACH #: 3 SITE #: 140 FIELD UTM: 9 652511 6110379 6P3 SITE LG: 600 0 ACCESS: F
DATE: 2008 09 18 TIME: 1410 AGENCY: CO16 CREW: MJ, DJ FISH FORM: Y ☒ N ☐

CHANNEL (mtnd)
CHANNEL WIDTH (m): 7 1.6 1.7 1.8 1.4 1.7 1.8
WETTED WIDTH (m): T 1.2 0.9 1.2 1.4 1.1 1.5
RES. POOL DEPTH (m): MS 0.3 0.1 0.2 0.1 0.2 0.3
W_b Dp (m): D 0.4 0.3 0.5 0.3 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐
GRADIENT %: AL 5 2 4 7

COVER Total 4
Type: SWD LWD B U DP OV IV
AMT: T D T G G N
LOC: B P P P P P
LWD FNC: N F A DIST: C E
LB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA
CROWN CLOSURE: 0 1-20% 21-40% 41-70% 71-90% >90% — 0 1 2 3 4 5
INSTREAM VEG: N A M V
RB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M
STAGE: INIT SHR PS YF MF NA

WATER
EMS
TEMP 10 °C T3
pH
REQ #
CON D. 340 µS/cm G
TURB. T M L O G
FLD SNS
BED MATERIAL Dominant G Subdom. B
D95 (cm) 45 D (cm) 14 Morph. CP3

MORPHOLOGY
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mtnd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

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HABITAT QUALITY
NFH - overall good potential & habitat available however limited by RB. No D S4 - some gravel pockets but poor habitat & to. Last during HF. Stream sampled by Tribar in R1 in 97 & NFC.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DG	1231	ST	U	Book
DG	1232	ST	D	—

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: V. poor access to this reach through R2 → first 4 V. poor ISC also like short amount to Robins & likely alternative problems @ mouth.

S6

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COMBINED FISH COLLECTION

GAZETTED NAME: BLK SFH-2008-T11 (local) STR AA-R1 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE: 480|50|79|900
WATERBODY ID: — ILP MAP #: — ILP #: — SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID: — REACH #: 2 of 3 — FISH PERMIT #: SM08-4574R
DATE: 2008 09 18 to — AGENCY: CO16 CREW: MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB	COMMENTS
139			9 | 652819 | 6110252 | GPS	EF 1	10	340	C	400 m d/s
140			9 | 652511 | 6110379 | GPS	EF 1	10	340	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
139	EF 1	1	NFC			0				
140	EF 1	1	NFC			0				

GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
1	139	EF 1	1	1330	1400	105	400	1.5	0	300	80	4	SR	12B
	140	EF 1	1	1410	1515	397	600	1.5	0	300	80	4	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO

1 V. little ISC, cv. shallow, fast, rocky rave & shallow, D90 - 20, Gwid 11
No S or D

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SITE CARD

STREAM NAME (gaz.) SFH-2008-T9 (local) strm AB R1
WATERSHED CODE
ILP MAP # ILP # NID MAP # NID #
REACH # 1 SITE # 141A FIELD UTM 9 \| 651719 \| 6110651 \| GPS SITE LG 900.0 ACCESS FT
DATE 20080918 TIME 1635 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL (mthd)
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H — No Vis. Ch. ☒ — Dry/Int. ☐ — DW ☐ — Tribs. ☐

GRADIENT % (MTD)

WATER: EMS (MTD) — REQ # — TEMP °C — CON D. µS/cm — pH — TURB. T M L C — FLD SNS

COVER — Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90%

0	1	2	3	4	5	

LWD FNC N F A — DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

D95 (cm) — D (cm) — Morph.

DISTURBANCE INDICATORS: beavdam | aban ch | endbk | anvl | SWD | LWD | jam | ex rf | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr

01	B1	B2	B3	D1	D2	D3	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

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HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C	
	No drainage on steep slope

ND

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SITE CARD

STREAM NAME (gaz.) SFH-2008-T9 (local) strm AB R1
WATERSHED CODE
ILP MAP # ILP # NID MAP # NID #
REACH # 2 SITE # 141 FIELD UTM 9 \| 651513 \| 6110611 \| GPS SITE LG 150.3 ACCESS FT
DATE 20080918 TIME 1650 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL (mthd)
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H — No Vis. Ch. ☒ — Dry/Int. ☐ — DW ☐ — Tribs. ☐

GRADIENT % (MTD)

WATER: EMS (MTD) — REQ # — TEMP °C — CON D. µS/cm — pH — TURB. T M L C — FLD SNS

COVER — Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90%

0	1	2	3	4	5	

LWD FNC N F A — DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

D95 (cm) — D (cm) — Morph.

DISTURBANCE INDICATORS: beavdam | aban ch | endbk | anvl | SWD | LWD | jam | ex rf | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr

01	B1	B2	B3	D1	D2	D3	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

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NFH – seepage through alder patch, basically connected mud puddles. Slightly channelized with some alluvium & seaweed bed in 30 m long section u/s of dissipation point

HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1233	SF	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C	
	NCD

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SITE CARD

STREAM NAME (gaz.) BLK SFH 2008-T8 (local) AA-R1
WATERSHED CODE 480|50|79|900
ILP MAP # ILP # NID MAP # NID #
REACH # 3.1 SITE # 142 FIELD UTM 9 \| 651563 \| 6110857 \| GPS SITE LG 150.0 ACCESS FT
DATE 20080919 TIME 1715 AGENCY CO16 CREW MT, DJ FISH FORM Y ☒ N ☐

CHANNEL (mthd)
CHANNEL WIDTH (m) T 1.1 1.3 1.0 1.4 1.2 1.4
WETTED WIDTH (m) T 0.5 0.8 0.6 1.1 0.8 1.0
RES. POOL DEPTH (m) M 0.1 0.1 0.16
W_b Dp (m) ~0.3 0.03 0.04 STAGE L M H — No Vis. Ch. ☐ — Dry/Int. ☐ — DW ☐ — Tribs. ☐

GRADIENT % (MTD) AL — 10 13 — 14

WATER: EMS (MTD) — REQ # — TEMP 10 °C — CON D. 28 µS/cm 54 — pH — TURB. T M L C 60 — FLD SNS N

COVER — Total T

Type	SWD	LWD	B	U	DP	OV	IV
AMT	FT	T	D	T	T	S	N
LOC	C	C	C	C	C	C	

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90%

0	1	(2)	3	4	5	

LWD FNC N F A — DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

D95 (cm) — D (cm) 7 — Morph. CB

DISTURBANCE INDICATORS: beavdam | aban ch | endbk | anvl | SWD | LWD | jam | ex rf | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr

01	B1	B2	B3	D1	D2	D3	C1	C2	C3	C4	C5	S1	S2	S3	S4	S5
							C1									

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC PC (NO)
CONFINEMENT EN (NO) FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

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NFH – flows to NFB stream beside mo known resident NO S – angular substrate, D16 – 0 slope – descend other 25% slope d/s drains blk body

HABITAT QUALITY

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1234	SF	U	Brook
D16	1235	SF	D	Brook

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C	
	S6

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FISH COLLECTION FORM

GAZETTED NAME (local) AA-R1 LAKE STREAM WETLAND
WATERSHED CODE 4 8 0 5 0 7 9 0 0
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED Y N
PROJECT ID REACH # 5 FISH PERMIT # SM08-45742
DATE 20 08 09 18 to YY MM DD AGENCY C016 CREW MJ DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
142			9 651563 6110857 6P3	EF 1	10	280	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
142	EF 1	1	NFC			0				

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NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
142	EF 1	1	1710	1720	103	150	1.2	0	300	83	4	SR	1213

COMMENTS

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SITE CARD

STREAM NAME (gaz.) Blk. SFH. 2008_T8 (local) AA-R1
WATERSHED CODE 4 8 0 5 1 8 4 0 0
ILP MAP # ILP # NID MAP # NID #
REACH # 3 SITE # 143 FIELD UTM 9 653009 6108783 6P3 SITE LG 130 0 ACCESS FT
DATE 20 08 09 19 TIME 1 1 0 5 AGENCY C016 CREW MJ DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)	T	2.5	2.7	2.5	2.7	2.1	2.3			
WETTED WIDTH (m)	T	1.6	1.2	1.1	2.3	1.4	1.2			
RES. POOL DEPTH (m)	MD	0.22	0.37	0.48	0.41	0.43	0.21	0.51		

GRADIENT % AL 4 2.5 3 2.5
W_b Dp (m) 0.38 0.34 0.24 0.37 STAGE D M H No Vis. Ch. Dry/Int. DW Tribs.

COVER Total M/A

	SWD	LWD	B	U	DP	OV	IV
Type	T	S	T	S	D	T	N
AMT							
LOC	P	P	P	P	P		

LWD FNC N F C DIST C D
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	> 90%
0	1	2	3	4	5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

WATER

EMS TEMP 9 °C pH
REQ # CON D. 420 µS/cm TURB. T M L C
FLD SNS N
BED MATERIAL Dominant G Subdom. C
D95 (cm) 10 D (cm) 7 Morph. RPWG

MORPHOLOGY

DISTURBANCE INDICATORS

	Beaverdam	aban ch	erdbk	avul	SWD	LWD	jam
	01	B1	B2	B3	D1	D2	D3

ex rif	no pl	elev br	mult ch	dis line	hum bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

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HABITAT QUALITY

Overall = V. good pre-wetted hab for DV.
R - M-G - pools quite frequent (v 10-15 m) cover diverse somewhat reduced @ UF (mostly LWD dependent)
S - exc - & V. common good holding DV of common
O - F-M - some pool scores to be appropriate

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1236	M	D	DV - photo - rview
D16	1238	ST	U	Book
D16	1239	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

S3

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COMBINED FISH COLLECTION

GAZETTED NAME Blk. SFH. 2008_T8 (local) sh AA-R1 LAKE STREAM WETLAND
WATERSHED CODE 4 8 0 5 1 8 4 0 0
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED Y N
PROJECT ID REACH # 3 FISH PERMIT # SM08-45742
DATE 20 08 09 18 to YY MM DD AGENCY C016 CREW MJ DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
143			9 653009 6108783 6P3	EF 1	9	420	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
143	EF 1	1	DV	J	0+	7	47	58	R	

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

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ELECTROFISHER SPECIFICATIONS

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
		EF 1	1	1110	1125	99	130	1.5	0	300	80	2	SR	123

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
		EF 1	1	DV	48											R F
				DV	51											R F
				DV	51											R F
				DV	54											R F
				DV	56											R F
				DV	55											R F
				DV	47											R F
																R F
																R F
																R F
																R F

361

SITE CARD

STREAM NAME (gaz.) Blk. SFH. 2008_T7 (local) Strm AA/AC-R1
WATERSHED CODE 4 8 0 5 1 8 1 0 0
ILP MAP # ILP # NID MAP # NID #
REACH # 2 SITE # 144 FIELD UTM 9 653324 6108306 6P3 SITE LG 600 0 ACCESS FT
DATE 20 08 09 18 TIME 1 4 00 AGENCY C016 CREW MJ DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)										
WETTED WIDTH (m)										
RES. POOL DEPTH (m)										

GRADIENT %
W_b Dp (m) STAGE L M H No Vis. Ch. Dry/Int. DW Tribs.

COVER Total

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	> 90%
0	1	2	3	4	5

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

WATER

EMS TEMP °C pH
REQ # CON D. µS/cm TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY

DISTURBANCE INDICATORS

	Beaverdam	aban ch	erdbk	avul	SWD	LWD	jam
	01	B1	B2	B3	D1	D2	D3

ex rif	no pl	elev br	mult ch	dis line	hum bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R F		
						R F		
						R F		
						R F		

362

HABITAT QUALITY

NFH = NCD all the way down to Side HTM.
Drainage has scoured sections with exposed cobbles or fluvial deposits & scoured channel.
Nothing longer than 60 m.

FSZ

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1240	ST	U	Book
D16	1241	ST	X	-11-

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

Flows through swale veg by stolen multichamber, stream still occasional puddles, up (swale N 10m wide)
M. scrapped drainage

Named AC-R1 becomes AA-R1
Switched AA/AC-R1

NCD

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SITE CARD

STREAM NAME (gaz.) TG (local) AD-R1
WATERSHED CODE
ILP MAP # ILP # 7002 NID MAP # NID #
REACH # SITE # 145 FIELD UTM 9 652079 6107835 GP3 SITE LG 150 ACCESS FT
DATE 20080919 TIME 1510 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd | GRADIENT % | EMS | REQ # | WATER
CHANNEL WIDTH (m) | TEMP °C | CON D. µS/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H | No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐ | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% → 0 1 2 3 4 5

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E | INSTREAM VEG N A M V | PATTERN TM ME IM IR SI ST
LB SHP U V S O | RB SHP U V S O | ISLANDS N O I F S AN
TEXTURE F G C B R A | TEXTURE F G C B R A | BARS N SIDE DIAG MID SPAN BR
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M | COUPLING DC PC CO
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA | CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

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HABITAT QUALITY: NFH - drainage through D.C / Alder patch with scoured & dry pools, no continuity, Alluvium on banks
Move upstream d/s of site UTM

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1242	ST	BD	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

(365)

SITE CARD

STREAM NAME (gaz.) BLK SFH. 2008. T7 (local) STRM AB-R1
WATERSHED CODE 480525800010400
ILP MAP # ILP # NID MAP # NID #
REACH # SITE # 146 FIELD UTM 9 652873 6107337 GP3 SITE LG 110 ACCESS FT
DATE 20080919 TIME 1610 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd | GRADIENT % | EMS | REQ # | WATER
CHANNEL WIDTH (m) | TEMP °C | CON D. µS/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H | No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐ | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% → 0 1 2 3 4 5

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E | INSTREAM VEG N A M V | PATTERN TM ME IM IR SI ST
LB SHP U V S O | RB SHP U V S O | ISLANDS N O I F S AN
TEXTURE F G C B R A | TEXTURE F G C B R A | BARS N SIDE DIAG MID SPAN BR
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M | COUPLING DC PC CO
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA | CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(366)

HABITAT QUALITY: NFH - NCD @ road & for ~150 m then becomes strm @ UTM 9, 652816, 6107405. Noted no perennial flow in stream → no access to any FB waters

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1243	ST	U	Book
D16	1244	ST	X	book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C Drainage mismapped → GPS'd | C
NCD / S6

(367)

SITE CARD

STREAM NAME (gaz.) BLK SFH-2008-TG (local) strm AA-R1
WATERSHED CODE
ILP MAP # 7003 NID MAP # NID #
REACH # SITE # 147 FIELD UTM 9 652273 6105873 GP3 SITE LG 100 ACCESS D4
DATE 20080919 TIME 1735 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd | GRADIENT % | EMS | REQ # | WATER
CHANNEL WIDTH (m) | TEMP °C | CON D. µS/cm
WETTED WIDTH (m) | pH | TURB. T M L C
RES. POOL DEPTH (m) | FLD SNS
W_b Dp (m) STAGE L M H | No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐ | BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% → 0 1 2 3 4 5

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E | INSTREAM VEG N A M V | PATTERN TM ME IM IR SI ST
LB SHP U V S O | RB SHP U V S O | ISLANDS N O I F S AN
TEXTURE F G C B R A | TEXTURE F G C B R A | BARS N SIDE DIAG MID SPAN BR
RIP. VEG. N G S C D M W | RIP. VEG. N G S C D M | COUPLING DC PC CO
STAGE INIT SHR PS YF MF NA | STAGE INIT SHR PS YF MF NA | CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(368)

HABITAT QUALITY: NFH - occasionally flooded ~20 m wide valley vegetated by alder / Lady fern & DC. No scoured channel bed or fluvial deposits

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1245	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

(369)

SITE CARD

STREAM NAME (gaz.) SFH-2008-TG (local) strm AB-R1
WATERSHED CODE
ILP MAP # 7001 NID MAP # NID #
REACH # 3 SITE # 148 FIELD UTM 9 652223 6107071 GP3 SITE LG 360 D ACCESS FT
DATE 20080919 TIME 1150 AGENCY CO16 CREW MJ DJ FISH FORM Y☒ N☐

CHANNEL mthd: T T T T T T | GRADIENT %: AL | EMS | REQ # | WATER
CHANNEL WIDTH (m): 1.5 1.2 1.7 1.5 1.4 1.5 | TEMP 9 °C T3 | CON D. 180 µS/cm S4
WETTED WIDTH (m): 0.9 1.0 0.9 0.4 0.7 0.6 | pH | TURB. T M L C0 F2
RES. POOL DEPTH (m): M 1 0.4 0.09 0.19 0.12 | 1 1.5 | FLD SNS N
W_b Dp (m) 0.3 0.3 0.3 0.3 STAGE D M H | No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐ | BED MATERIAL Dominant F Subdom. C
D95 (cm) 22 D (cm) 3 Morph. RP

COVER: Total 4
Type SWD LWD B U DP OV IV
AMT X X X X X X X
LOC C C F S S P N

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% → 0 1 (2) 3 4 5

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E | INSTREAM VEG N A M V | PATTERN TM ME IM (IR) SI ST
LB SHP U (N) S O | RB SHP (U) V S O | ISLANDS N (O) I F S AN
TEXTURE F G (C) B R A | TEXTURE F G (C) B R A | BARS (N) SIDE DIAG MID SPAN BR
RIP. VEG. N G S (C) D M W | RIP. VEG. N G S (C) D M | COUPLING (DC) PC CO
STAGE INIT SHR PS YF (MF) NA | STAGE INIT SHR PS YF (MF) NA | CONFINEMENT EN CO FC (OC) UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(370)

HABITAT QUALITY: R - usable but strm inaccessible d/t lack of channel
d/s near rd xing - dispersed
S - none
O - none
No isolated fish popl. in stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1246	ST	U	Book
D16	1247	ST	D	-"-

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
S6

(371)

COMBINED FISH COLLECTION

GAZETTED NAME: SFH_2008_T6 (local): AB-R1 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE:
WATERBODY ID: ILP MAP #: ILP #: 7001 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID: REACH #: 3 FISH PERMIT #: SM08-45742
DATE: 20080910 to: AGENCY: CO16 CREW: MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
148			9 652223 6107107 6F3	EF 1	9	180	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
148	EF 1	1	NFC			0				

GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

372

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	148	EF 1	1	1150	1215	301	300	0.7	0	300	80	4	SR	1213

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

373

SITE CARD

STREAM NAME (gaz.): T5E (local): AF-R1
WATERSHED CODE: 480152158190141184148
ILP MAP #: ILP #: NID MAP #: NID #:
REACH #: 8 SITE #: 149 FIELD UTM: 9 652283 6106924 GPS SITE LG: 100 10 ACCESS: FT
DATE: 20080910 TIME: 1250 AGENCY: CO16 CREW: MJ, DJ FISH FORM: Y ☐ N ☒

CHANNEL

	mthd									
CHANNEL WIDTH (m)	T	1.1	1.3	0.9	1.3	1.4	1.0			
WETTED WIDTH (m)	T	0.2	0.1	0.3	0	0.2	0.8			
RES. POOL DEPTH (m)	T	0	0	0	0	0	0			

W_b Dp (m): 0.5 0.4 2.0 3.8 0.4 3 STAGE: L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT %: AL 22 28 15 8

WATER: EMS: REQ #: TEMP: 8 °C CON D.: 110 µS/cm pH: TURB.: T M L C

FLD SNS: N

COVER Total: A

	Type	SWD	LWD	B	U	DP	OV	IV
AMT		N	T	D	T	N	S	N
LOC			P	P		P		

CROWN CLOSURE: 0 1 2 3 4 5

LWD FNC: N F A DIST: C E
LB SHP: U N S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA

INSTREAM VEG: N A M V
RB SHP: U V S N
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M
STAGE: INIT SHR PS YF MF NA

MORPHOLOGY

BED MATERIAL: Dominant: B Subdom.: C
D95 (cm): 400 D (cm): 15 Morph.: CP

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR SI ST
ISLANDS: N 0 I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

374

HABITAT QUALITY: NFH - small, steep & seasonal stream, NFB d/s

PHOTO DOCUMENTATION

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1248	SS	U	Book
D16	1249	SS	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C: Stream flattens down on a bench with mostly fines in substrate, OS some, grad - 2-4%

SG

375

SITE CARD

STREAM NAME (gaz.): BLK T5E (local): strm AG-R1
WATERSHED CODE:
ILP MAP #: 7004 ILP #: NID MAP #: NID #:
REACH #: 1 SITE #: 150 FIELD UTM: 9 651233 6107385 GPS SITE LG: 200 10 ACCESS: FS
DATE: 20080910 TIME: 1410 AGENCY: CO16 CREW: MJ, DJ FISH FORM: Y ☐ N ☒

CHANNEL

	mthd									
CHANNEL WIDTH (m)										
WETTED WIDTH (m)										
RES. POOL DEPTH (m)										

W_b Dp (m): STAGE: L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT %:

WATER: EMS: REQ #: TEMP: °C CON D.: µS/cm pH: TURB.: T M L C

FLD SNS:

COVER Total:

	Type	SWD	LWD	B	U	DP	OV	IV
AMT								
LOC								

CROWN CLOSURE: 0 1 2 3 4 5

LWD FNC: N F A DIST: C E
LB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA

INSTREAM VEG: N A M V
RB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M
STAGE: INIT SHR PS YF MF NA

MORPHOLOGY

BED MATERIAL: Dominant: Subdom.:
D95 (cm): D (cm): Morph.:

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

376

HABITAT QUALITY: NFH

PHOTO DOCUMENTATION

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1250	SS	X	Book
D16	1251	SS	X	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C: wide & steep gully with scoured bottom, occasionally up to 3m wide exposed B/C but disc. thru discontinuous as well, drainage deposits, bryophytes & freq. sinks into scoured channel in sections 20-40 m long

NCD

377

SITE CARD

STREAM NAME (gaz.): BLK SFH_2008_T5C (local): strm AF
WATERSHED CODE: 148152158190141184148
ILP MAP #: ILP #: NID MAP #: NID #:
REACH #: 10 SITE #: 151 FIELD UTM: 9 650945 6107441 GPS SITE LG: 500 10 ACCESS: FT
DATE: 20080910 TIME: 1450 AGENCY: CO16 CREW: MJ, DJ FISH FORM: Y ☐ N ☒

CHANNEL

	mthd									
CHANNEL WIDTH (m)	T	0.9	1.6	0.7	1.5	1.0	1.1			
WETTED WIDTH (m)	T	0.6	0.6	0.4	0.7	0.6	0.3			
RES. POOL DEPTH (m)	T	0								

W_b Dp (m): 0.2 0.2 1.0 3.0 2 STAGE: L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT %: AL 8 4 16 3

WATER: EMS: REQ #: TEMP: 10 °C CON D.: 60 µS/cm pH: TURB.: T M L C

FLD SNS:

COVER Total: T (M)

	Type	SWD	LWD	B	U	DP	OV	IV
AMT		S	T	D	T	N	S	N
LOC		P	P	P		P		

CROWN CLOSURE: 0 1 2 3 4 5

LWD FNC: N E A DIST: C E
LB SHP: U N S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M W
STAGE: INIT SHR PS YF MF NA

INSTREAM VEG: N A M V
RB SHP: U V S O
TEXTURE: F G C B R A
RIP. VEG.: N G S C D M
STAGE: INIT SHR PS YF MF NA

MORPHOLOGY

BED MATERIAL: Dominant: C Subdom.: F
D95 (cm): 40 D (cm): 6 Morph.: CP

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN: TM ME IM IR SI ST
ISLANDS: N O I F S AN
BARS: N SIDE DIAG MID SPAN BR
COUPLING: DC PC CO
CONFINEMENT: EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

378

HABITAT QUALITY: NFH - T, my & seasonal almost dry @ present; No potential hab @ any time of year.

PHOTO DOCUMENTATION

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1252	SS	U	Book
D16	1253	SS	D	Book
D16	1254	SS	U	Book - NCD section

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C: NCD @ #371 → Yes pf 372 ~ 150m, further D/S
Angular substrate

SG/NCD

379

SITE CARD

STREAM NAME (gaz.) BLK SFH_2008_T5C (local) Strm AJ-R1
WATERSHED CODE
ILP MAP # ILP # 7005 NID MAP # NID #
REACH # 1 SITE # 152 FIELD UTM 9 650503 6107477 GP3 SITE LG 100.0 ACCESS FT
DATE 20/08/09/20 TIME 1:15:15 AGENCY CO16 CREW FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam | B1 aban ch | B2 erdbk | B3 avul | D1 SWD | D2 LWD | D3 jam; C1 ex rif | C2 no pl | C3 elev br | C4 mult ch | C5 dis line | S1 horn bd | S2 finger | S3 lg wdg | S4 ex bar | S5 ex bd scr
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

(380)

HABITAT QUALITY: NFH - seepage from small glacds; heavily any evidence of surface flow @ the eject of gully

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1255	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Unmapped drainage
Mineral lick? → water cond 730 µS
Wet mudhole for wallowing
NCD
(381)

SITE CARD

STREAM NAME (gaz.) T5A/C (local) AE R1
WATERSHED CODE
ILP MAP # ILP # 7006 NID MAP # NID #
REACH # SITE # 153 FIELD UTM 9 650325 6107181 GP3 SITE LG 440.0 ACCESS FT
DATE 20/08/09/20 TIME 1:10p AGENCY CO16 CREW MJ, DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m) T 1.0 0.9 1.2 1.2 1.1 1.0
WETTED WIDTH (m) T 0.6 0.6 0.8 0.7 0.9 0.5
RES. POOL DEPTH (m) M 3.0
W_b Dp (m) 0.34 0.24 0.18 M STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT % AL 4.5 6
EMS REQ #
TEMP 9 °C T3 CON D. 70 µS/cm S4
pH TURB. T M L S6
FLD SNS N
BED MATERIAL Dominant C Subdom. F
D95 (cm) 32 D (cm) 4 Morph. CP

COVER: Total M
Type SWD LWD B U DP OV IV
AMT T T S T N D N
LOC P P P A P
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam | B1 aban ch | B2 erdbk | B3 avul | D1 SWD | D2 LWD | D3 jam; C1 ex rif | C2 no pl | C3 elev br | C4 mult ch | C5 dis line | S1 horn bd | S2 finger | S3 lg wdg | S4 ex bar | S5 ex bd scr
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

(382)

HABITAT QUALITY: NFH - chinooks in mucky pond (dry now) no access to fish, only seasonal R potential but no fish

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1256	ST	U	Book — @ xing
D16	1257	ST	X	Book — dissipation

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: xing UTM 9, 650277, 6107425
CW = 1.0, 0.9, 1.2, 1.2, 1.1, 1.0
WB = 0.34, 0.36, 0.24, 0.21, 0.23, 0.18
θ = 4.5°
D/F V shape, S1
Cover M → OV-D, B-S, CB-T
C: Borderline NCD/S6 from 100 m d/s of xing to Unmapped lower section
(383)

SITE CARD

STREAM NAME (gaz.) T5D (local) Strm AE-R1
WATERSHED CODE
ILP MAP # ILP # 7006 NID MAP # NID #
REACH # SITE # 154 FIELD UTM 9 650441 6106847 GP3 SITE LG 200.0 ACCESS FT
DATE 20/08/09/20 TIME 1:80p AGENCY CO16 CREW MJ, DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam | B1 aban ch | B2 erdbk | B3 avul | D1 SWD | D2 LWD | D3 jam; C1 ex rif | C2 no pl | C3 elev br | C4 mult ch | C5 dis line | S1 horn bd | S2 finger | S3 lg wdg | S4 ex bar | S5 ex bd scr
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

(384)

HABITAT QUALITY: NFH - becomes NCD ~ 75 m d/s of W,

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1258	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: pt 384 wetland, 385 end of W
@ site - second outlet from W.
S6/NCD
(385)

SITE CARD

STREAM NAME (gaz.) BLK SFH_2008_T5A (local) AA R1
WATERSHED CODE
ILP MAP # ILP # NID MAP # NID #
REACH # SITE # 155 FIELD UTM 9 649028 6107502 GP3 SITE LG 100.0 ACCESS FT
DATE 20/08/09/21 TIME 0:09:21 AGENCY CO16 CREW MJ, DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 beavdam | B1 aban ch | B2 erdbk | B3 avul | D1 SWD | D2 LWD | D3 jam; C1 ex rif | C2 no pl | C3 elev br | C4 mult ch | C5 dis line | S1 horn bd | S2 finger | S3 lg wdg | S4 ex bar | S5 ex bd scr
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

(386)

HABITAT QUALITY: NFH - seepage through ~ 30 m wide alder patch with herbert visible signs of surface flow. No scour or fluvium. Starts to puddle up ~ 150 m u/s - dry

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1259	ST	U	No scale
D16	1260	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Could not differentiate b/t AA & AJ streams drainage followed it from site UTM
NCD
(387)

SITE CARD

STREAM NAME (gaz.) BLK SFH-2008-T5A (local) Strm AB-R1
WATERSHED CODE 4601081700045390061601016460
ILP MAP # ILP # NID MAP # NID #
REACH # 4 SITE # 156 FIELD UTM 9 647885 6107038 6P3 SITE LG 350 0 ACCESS FT
DATE 7/29/08 10/9/21 TIME 10:30 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m) T 1.3 1.4 0.9 1.0 0.9 1.0
WETTED WIDTH (m) T 1.1 1.0 0.7 0.8 0.3 0.3
RES. POOL DEPTH (m) T 0.16 0.19
W_b Dp (m) 0.31 0.23 0.26 0.27 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % AL 11 7 7 12

EMS TEMP 9 °C REQ # CON D. µS/cm pH TURB. T M L C 68

FLD SNS N
BED MATERIAL Dominant C Subdom. B
D95 (cm) 45 D (cm) 5 Morph. CP

COVER Total T(M)
Type SWD LWD B U DP OV IV
AMT T T D T T S N
LOC P P P P P C

CROWN CLOSURE 0 1 2 3 4 5 (0 1-20% 21-40% 41-70% 71-90% >90%)

DISTURBANCE INDICATORS (beavdam aban ch endbk avul SWD LWD jam)
01 B1 B2 B3 D1 D2 D3
ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U N S O RB SHP U N S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__
R__ F__
R__ F__
R__ F__

388

HABITAT QUALITY
NFH - tiny & moderately steep C with V. poor ISC @ any flows. No S - angular substr; to steep, large
No D - too shallow
No R - too fast @ HF & MF, trickles w/in C/B @ LF
Pools scarced

PHOTO DOCUMENTATION
FSZ☐

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1261	ST	U	Book -> NCD section
V	1262	V	U	Book
V	1263	V	D	Book
V	1264	ST	X	Book - FSB

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS
INV	abundant mosquitos, larvae		

COMMENTS
C: @ UTM 9.649141, 6106961 becomes NCD
1 Angular substrate
Sprouse with [illegible] of UBF
C: too shallow to complete
SC
Strm misnamed - originally patterned but @ UTM 9.647874, 6107547

389

COMBINED FISH COLLECTION

GAZETTED NAME (local) AB4618-1 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 7007 SITE/LAKE CARD ATTACHED ☐ Y ☒ N
PROJECT ID REACH # 1&2 FISH PERMIT # SM08-45742
DATE 7/29/08 10/9/21 to AGENCY CO16 CREW MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
156AS			9 647870 6107547 6P3	EF 1	10	120	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
156AS	EF 1	1	NFC			0				

GEAR SPECIFICATIONS — NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

390

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	156AS	EF 1	1	1130	1230	429	520	1	0	400	80	6	SR	128

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

CW N 2m wear xing N 1m with section close to W channel incised with some nice deep pools but mostly F. Misimagined - completely diverses @ UTM 9.647879, 6107587 - inaccurate to fish

391

SITE CARD

STREAM NAME (gaz.) BLK SFH-2008-T6 (local) Str AB-R1
WATERSHED CODE 4801081700065170100360201
ILP MAP # ILP # NID MAP # NID #
REACH # 4 SITE # 157 FIELD UTM 9 647879 6103769 6P3 SITE LG 100 0 ACCESS FJ
DATE 7/29/08 10/9/21 TIME 14:00 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) 0.31 0.27 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % AL

EMS TEMP 9 °C REQ # CON D. µS/cm pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE 0 1 2 3 4 5 (0 1-20% 21-40% 41-70% 71-90% >90%)

DISTURBANCE INDICATORS (beavdam aban ch endbk avul SWD LWD jam)
01 B1 B2 B3 D1 D2 D3
ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__
R__ F__
R__ F__
R__ F__

392

HABITAT QUALITY
NFH - seepage through boggy substr with occasional pindales, no seam observed or fluvium

PHOTO DOCUMENTATION
FSZ☐

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1265	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
NCD

393

SITE CARD

STREAM NAME (gaz.) BLK SFH-2008-T16 (local) AC-R1
WATERSHED CODE
ILP MAP # ILP # NID MAP # NID #
REACH # SITE # 158 FIELD UTM 9 648165 6103753 6P3 SITE LG 100 0 ACCESS FT
DATE 7/29/08 10/9/21 TIME 14:25 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT %

EMS TEMP °C REQ # CON D. µS/cm pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE 0 1 2 3 4 5 (0 1-20% 21-40% 41-70% 71-90% >90%)

DISTURBANCE INDICATORS (beavdam aban ch endbk avul SWD LWD jam)
01 B1 B2 B3 D1 D2 D3
ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__
R__ F__
R__ F__
R__ F__

394

HABITAT QUALITY
NFH

PHOTO DOCUMENTATION
FSZ☐

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
No drainage present
No ribbon
ND

395

SITE CARD

STREAM NAME (gaz.) A66819 (local) AC-R1
WATERSHED CODE
ILP MAP # ILP # 7012 NID MAP # NID #
REACH # 3 SITE # 159 FIELD UTM 9 648672 6104031 GPS SITE LG 200.0 ACCESS FT
DATE 2/02/8/09/21 TIME 1510 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % mtd

WATER: EMS; TEMP °C; pH; REQ #; CON D. µS/cm; TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 (ex rif, no pi, elev br, mult ch, dis line, horn bd, finger, avul, lg wdg, ex bar, ex bd scr, SWD, LWD, jam)
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% → 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (396)

HABITAT QUALITY: NFH - seepage through swale/gully with barely any scour present. No fluvial deposits, scour very sporadic

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1266	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C Mismapped lower section NCD (397)

SITE CARD

STREAM NAME (gaz.) BLK A 66819 (local) AC-R2
WATERSHED CODE
ILP MAP # ILP # 5007 NID MAP # NID #
REACH # 1 SITE # 160 FIELD UTM 9 648393 6104115 GPS SITE LG 200.0 ACCESS U4
DATE 2/02/8/09/21 TIME 1530 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd: 1 1 1 1 1 1
CHANNEL WIDTH (m): T 0.8 0.9 1.2 1.0 1.1 1.2
WETTED WIDTH (m): T 0.2 0.3 1.0 0.8 0.03
RES. POOL DEPTH (m): MS 0.2 0.1 0.17
W_b Dp (m) 0.1 0.2 0.1 STAGE L M H No Vis. Ch. X Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT %: FL 1

WATER: EMS; TEMP 10 °C T3; pH; REQ #; CON D. 90 µS/cm U4; TURB. T M L 65 65

FLD SNS N
BED MATERIAL Dominant F Subdom. Ng
D95 (cm) 0.1 D (cm) 0.1 Morph. FL
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER Total A
Type SWD LWD B U DP OV IV
AMT D T M N T S N
LOC P P P P
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% → 0 1 2 3 4 5
LWD FNC N F A DIST C D
LB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ Not a stream (398)

HABITAT QUALITY: NFH - disperses near 4000 Rd xing. No continuous channel, scour & fluvium. Not a stream as per definition
Data irrelevant but maybe for CP100

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1267	ST	U	Book
DIG	1268	ST	D	Book
DIG	1269	ST	X	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C Mismapped d/s of 4000 Rd
1 Only ~30m long sections of scoured channel bed
ramp R2 & R3 157 sec/ 803w 400/80/6 !!! Good for R2 & R3 NCD (399)

SITE CARD

STREAM NAME (gaz.) A66819 (local) AC-R2
WATERSHED CODE
ILP MAP # ILP # 5007 NID MAP # NID #
REACH # 2,3 SITE # 161 FIELD UTM 9 648590 6104171 GPS SITE LG 850.0 ACCESS FT
DATE 2/02/8/09/22 TIME 0945 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd: T T T T T T
CHANNEL WIDTH (m): T 1.4 1.3 1.0 1.0 1.0 0.8
WETTED WIDTH (m): T 0.7 0.6 0 0 0 0.2
RES. POOL DEPTH (m): MS 0.12 0.23 0.13
W_b Dp (m) 0.21 0.24 0.2 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT %: AL 3 5 4 7

WATER: EMS; TEMP 8 °C T3; pH; REQ #; CON D. 90 µS/cm U4; TURB. T M L 65

FLD SNS N
BED MATERIAL Dominant G Subdom. C
D95 (cm) 20 D (cm) 5 Morph. CP
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER Total T M
Type SWD LWD B U DP OV IV
AMT T T S S D N
LOC P P P P P P
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% → 0 1 2 3 4 5
LWD FNC N F A DIST C D
LB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (400)

HABITAT QUALITY: NFH - tiny stream which disperses near 4000 Rd
No isolated fish population d/s bcs of proximity to inaccessible fish barrier
Flows seasonal
Originally sampled in 2001 by Silvicon with NFC

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PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1270	ST	U	Book
DIG	1271	ST	D	— " —

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C Becomes NCD @ 45M
9, 648496, 6104154 (lower end
Xing UTM 9, 648731, 6104387. → R3
Becomes bankfull stream/NCD
N 150 u/s from xing (401)

FISH COLLECTION FORM

GAZETTED NAME (local) A66819 AC-R2 LAKE STREAM WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 5007 SITE/LAKE CARD ATTACHED Y N
PROJECT ID REACH # 2,3 D FISH PERMIT # SU08-45742
DATE 2/02/8/09/22 to YY MM DD AGENCY CO16 CREW MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION SIZE	STREAM CONDITION TURB	COMMENTS
161			9 648590 6104171 GPS	EF 1	8	90	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
161	EF 1	1	NFC			0				

(402)

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
161	EF 1	1	1600	1700	157	800	0.5	0	400	80	6	SR	1215

COMMENTS (403)

SITE CARD

STREAM NAME (gaz.) T16 (local) AD-R1
WATERSHED CODE 1708010702
ILP MAP # – ILP # – NID MAP # – NID #
REACH # 2 SITE # 162 FIELD UTM 10 649907 6102869 6P3 SITE LG 200 ACCESS FT
DATE 20080912 TIME 1030 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m) T 1.2 1.4 1.1 1.1 1.4 1.3
WETTED WIDTH (m) T 1.0 0.7 0.6 0.6 0.6 0.8
RES. POOL DEPTH (m) MS 0.21 0.25 0.38 0.31 0.12
W_b Dp (m) 0.33 0.37 0.44 0.3 STAGE L M H

GRADIENT % L 0.5

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

EMS – REQ # –
TEMP 8 °C CON D. 80 µS/cm
pH – TURB. T M L 50

FLD SNS
BED MATERIAL Dominant F Subdom. NA
D95 (cm) 0.1 D (cm) 0.1 Morph. LC

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER
Total A
Type SWD LWD B U DP OV IV
AMT S I N S D T N
LOC P P P P P P
CROWN CLOSURE 0 1 2 3 4 5
LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__

(404)

HABITAT QUALITY: Not conducive habs for salmonids stream has very slow flow even @ HF (avg material). No SG flow some R but for very short time in spring where there would be sufficient O_2 supply. Sampled twice in the past by Triton with NFC

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PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1272	ST	U	Book
D16	1273	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: SG

(405)

COMBINED FISH COLLECTION

GAZETTED NAME T16 (local) AD-R1 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED Y ☐ N
PROJECT ID REACH # – FISH PERMIT # SM08-48742
DATE 20080912 to AGENCY CO16 CREW MJ DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
162			9 649907 6102869 6P3	EF 1	8	80	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
162	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS
C | SITE # | MTD / # | HAUL | DATE IN | TIME IN | DATE OUT | TIME OUT | NET TYPE | LENGTH | DEPTH | MESH SIZE | SET | HAB.

(406)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	162	EF 1	1	1040	1130	327	200	1	0	500	50	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

(407)

SITE CARD

STREAM NAME (gaz.) (local) BLK A 82493-4
WATERSHED CODE
ILP MAP # ILP # 93401 NID MAP # NID #
REACH # 5 SITE # 163 FIELD UTM 10 312610 5981935 6P3 SITE LG 100 ACCESS FT
DATE 20080912 TIME 1025 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H

GRADIENT %

No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

EMS – REQ # –
TEMP °C CON D. µS/cm
pH – TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER
Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1 2 3 4 5
LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__

(408)

HABITAT QUALITY: NFH- seepage through already logged area — no flowing water or banks - not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1274	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

(409)

SITE CARD

STREAM NAME (gaz.) (local) BLK A 82493-4
WATERSHED CODE
ILP MAP # ILP # 93402 NID MAP # NID #
REACH # 1 SITE # 164 FIELD UTM 10 312574 5981358 6P3 SITE LG 100 ACCESS FT
DATE 20080912 TIME 1050 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H

GRADIENT %

No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

EMS – REQ # –
TEMP °C CON D. µS/cm
pH – TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER
Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1 2 3 4 5
LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R__ F__

(410)

HABITAT QUALITY: NFH- seepage with occasional muddy puddles @ the edge of forest & logged block, no flowing banks or scour - not a stream. Embeds small NCD on d/s side of site

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1275	ST	X	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

(411)

SITE CARD

STREAM NAME (gaz.) (local) A82493-1
WATERSHED CODE
ILP MAP # ILP # 93101
REACH # 1 SITE # 165 FIELD UTM 10 313348 5980384 GPS SITE LG 150.0 ACCESS FT
DATE 20/8/09/27 TIME 1:15 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%; 0 1 2 3 4 5

DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3
ex rif no pt elev br mult ch dis line horn bd finger lg wdg ex bar ex bd soil; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC	N F A	DIST	C E	INSTREAM VEG	N A M V	PATTERN	TM ME IM IR SI ST
LB SHP	U V S O			RB SHP	U V S O	ISLANDS	N O I F S AN
TEXTURE	F G C B R A			TEXTURE	F G C B R A	BARS	N SIDE DIAG MID SPAN BR
RIP. VEG.	N G S C D M W			RIP. VEG.	N G S C D M	COUPLING	DC PC CO
STAGE	INIT SHR PS YF MF NA			STAGE	INIT SHR PS YF MF NA	CONFINEMENT	EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(412)

HABITAT QUALITY: NFH - seepage with no scour, fluvium or bankes from cattle, centers small ft adjacent to the block. - not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1276	SF	D	Book
D16	1277	SF	X	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C — NCD

(413)

SITE CARD

STREAM NAME (gaz.) Hawley C (local) BLK A82493-1
WATERSHED CODE
ILP MAP # ILP # 93102
REACH # 9,2 SITE # 166 FIELD UTM 10 313522 5980216 GPS SITE LG 150.0 ACCESS FT
DATE 20/8/09/27 TIME 1:15:0 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%; 0 1 2 3 4 5

DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3
ex rif no pt elev br mult ch dis line horn bd finger lg wdg ex bar ex bd soil; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC	N F A	DIST	C E	INSTREAM VEG	N A M V	PATTERN	TM ME IM IR SI ST
LB SHP	U V S O			RB SHP	U V S O	ISLANDS	N O I F S AN
TEXTURE	F G C B R A			TEXTURE	F G C B R A	BARS	N SIDE DIAG MID SPAN BR
RIP. VEG.	N G S C D M W			RIP. VEG.	N G S C D M	COUPLING	DC PC CO
STAGE	INIT SHR PS YF MF NA			STAGE	INIT SHR PS YF MF NA	CONFINEMENT	EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(414)

HABITAT QUALITY: NFH - no continuous scoured channel bed, banks and fluvial deposits upstream in W cedvid-u/ or forested area 15ft R, 1-2% slope, scour isolated, drainage deposits over alluvium Heather leters out

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1278	SF	U	Book
D16	1279	SF	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C 406 → end of wetland corridor; 407 - POT | C — NCD

(415)

SITE CARD

STREAM NAME (gaz.) (local) A82493-1
WATERSHED CODE
ILP MAP # ILP # 93104
REACH # 2 SITE # 167 FIELD UTM 10 314169 5980847 GPS SITE LG 100.0 ACCESS FT
DATE 20/8/09/27 TIME 1:21:45 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☐

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%; 0 1 2 3 4 5

DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3
ex rif no pt elev br mult ch dis line horn bd finger lg wdg ex bar ex bd soil; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC	N F A	DIST	C E	INSTREAM VEG	N A M V	PATTERN	TM ME IM IR SI ST
LB SHP	U V S O			RB SHP	U V S O	ISLANDS	N O I F S AN
TEXTURE	F G C B R A			TEXTURE	F G C B R A	BARS	N SIDE DIAG MID SPAN BR
RIP. VEG.	N G S C D M W			RIP. VEG.	N G S C D M	COUPLING	DC PC CO
STAGE	INIT SHR PS YF MF NA			STAGE	INIT SHR PS YF MF NA	CONFINEMENT	EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(416)

HABITAT QUALITY: NFH - seepage through gentle gully, occasional puddles, no scour or fluvium - not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1280	SF	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C — NCD

(417)

SITE CARD

STREAM NAME (gaz.) (local) A82493-1
WATERSHED CODE
ILP MAP # ILP # 93103
REACH # 5&6 SITE # 168 FIELD UTM 10 313930 5980716 GPS SITE LG 660.0 ACCESS FT
DATE 20/8/09/27 TIME 1:20:5 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%; 0 1 2 3 4 5

DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam; 01 B1 B2 B3 D1 D2 D3
ex rif no pt elev br mult ch dis line horn bd finger lg wdg ex bar ex bd soil; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

LWD FNC	N F A	DIST	C E	INSTREAM VEG	N A M V	PATTERN	TM ME IM IR SI ST
LB SHP	U V S O			RB SHP	U V S O	ISLANDS	N O I F S AN
TEXTURE	F G C B R A			TEXTURE	F G C B R A	BARS	N SIDE DIAG MID SPAN BR
RIP. VEG.	N G S C D M W			RIP. VEG.	N G S C D M	COUPLING	DC PC CO
STAGE	INIT SHR PS YF MF NA			STAGE	INIT SHR PS YF MF NA	CONFINEMENT	EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(418)

HABITAT QUALITY: NFH - Drainage with discontinuous ± 30m long seaweed channel bed with some exposed angular cobbles up to the wetlandish corridor. N/W W mucky & mole puddles with Ans channel - not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1281	SF	X	Book - discontinuity
D16	1282	SF	D	Book - mud puddles in LD

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C #410 - W | C — NCD

(419)

SITE CARD

STREAM NAME (gaz.)	
(local)	BLK A82493-2
WATERSHED CODE	
ILP MAP #	
ILP #	93201
NID MAP #	
NID #	
REACH #	1 & 2
SITE #	169
FIELD UTM	10 315783 5980465 GPS
SITE LG	150 0
ACCESS	FT
DATE	2008 09 27
TIME	1425
AGENCY	C016
CREW	MJ DJ
FISH FORM	Y ☐ N ☒

CHANNEL	mthd						
CHANNEL WIDTH (m)	T	0.9	1.2	1.0	1.0	1.1	1.2
WETTED WIDTH (m)	T	0.4	0.3	0.6	0.5	0.3	0.9
RES. POOL DEPTH (m)	MS	0					
W_b Dp (m)	0.12	0.18	0.17	0.16			

GRADIENT %: AL; 5, 3; 5

STAGE: (L) M H — No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER	SWD	LWD	B	U	DP	OV	IV
AMT	T	N	D	N	N	S	N
LOC			P			P	

Total: T (A)

CROWN CLOSURE: 0 (0) 1 (1-20%) 2 (21-40%) **(3)** (41-70%) 4 (71-90%) 5 (> 90%)

LWD FNC	(N) F A
DIST	C E
INSTREAM VEG	N A (M) V
LB SHP	U (V) S O
RB SHP	U (V) S O
TEXTURE (LB)	F G (C) (B) R A
TEXTURE (RB)	F G (C) (B) R A
RIP. VEG. (LB)	N G (S) C D M W
RIP. VEG. (RB)	N G (S) C D M
STAGE (LB)	INIT SHR PS YF MF (NA)
STAGE (RB)	INIT SHR PS YF MF (NA)

WATER	
EMS	
TEMP	7 °C (T3)
pH	
REQ #	
CON D.	290 µS/cm (S4)
TURB.	T M L (C) (SE)

MORPHOLOGY	
FLD SNS	N
BED MATERIAL Dominant	C
Subdom.	B
D95 (cm)	40
D (cm)	4
Morph.	RP
DISTURBANCE INDICATORS	01 B1 B2 B3 D1 D2 D3; C1 (C2) C3 C4 C5 S1 S2 S3 S4 S5
PATTERN	TM ME IM IR (SI) ST
ISLANDS	(N) O I F S AN
BARS	(N) SIDE DIAG MID SPAN BR
COUPLING	DC PC (CO)
CONFINEMENT	EN (CO) FC OC UN N/A

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(420)

HABITAT QUALITY: NFH - tiny stream, shallow with no S & O hab, draining to documented NFB stream
No isolated fish population present in the system

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1283	ST	U	Book
DIG	1284	ST	D	Book
DIG	1285	ST	BD	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: pt 412 → NCD @ the outlet from small W.
UTM = 10,315625,5980327
Scoured channel becomes discontinuous so the fluvium

SC/NCD

(421)

SITE CARD

STREAM NAME (gaz.)	
(local)	A 82493-1
WATERSHED CODE	
ILP MAP #	
ILP #	93105
NID MAP #	
NID #	
REACH #	10
SITE #	170
FIELD UTM	10 314642 5979869 GPS
SITE LG	100 0
ACCESS	FT
DATE	2008 09 27
TIME	1525
AGENCY	C016
CREW	MJ DJ
FISH FORM	Y ☐ N ☒

No Vis. Ch. ☑ Dry/Int. ☐ DW ☐ Tribs. ☐

(422)

HABITAT QUALITY: NFH - seepage through small gully, very sparse scour surface flow during snow-melt → drains to Wetland
No scoured channel bed or fluvium - not a stream

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1286	ST	U	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

(423)

SITE CARD

STREAM NAME (gaz.)	
(local)	A 82493-1
WATERSHED CODE	
ILP MAP #	
ILP #	93106
NID MAP #	
NID #	
REACH #	1
SITE #	171
FIELD UTM	10 314609 5979332
SITE LG	150 0
ACCESS	FT
DATE	2008 09 27
TIME	1545
AGENCY	C016
CREW	MJ DJ
FISH FORM	Y ☐ N ☒

No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

(424)

HABITAT QUALITY: NFH - mostly seepage through swampy/grassy corridor isolated scour present but discontinuous; no fluvium - not a stream

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1287	ST	U	No scale - swampy area
DIG	1288	ST	BD	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

(425)

SITE CARD

STREAM NAME (gaz.)	
(local)	A 82491-1
WATERSHED CODE	
ILP MAP #	
ILP #	91102
NID MAP #	
NID #	
REACH #	1
SITE #	172
FIELD UTM	10 324528 5971958 GPS
SITE LG	100 0
ACCESS	FT
DATE	2008 09 29
TIME	0815
AGENCY	C016
CREW	MJ DJ
FISH FORM	Y ☐ N ☒

No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

(426)

HABITAT QUALITY: NFH - seepage through flat bottom gully, occasional small puddles with standing water - not a stream (bottom 10-70m wide)

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1289	ST	U	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

(427)

SITE CARD

STREAM NAME (gaz.) (local) BLK A82491-2
WATERSHED CODE
ILP MAP # ILP # 71208 NID MAP # NID #
REACH # 4.1 & 4.2 SITE # 173 FIELD UTM 10 324256 5971559 6F3 SITE LG 400.0 ACCESS FT
DATE 20180912 9 TIME 09:00 AGENCY CO16 CREW MJ, DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m) 1.08 1.0 1.1 1.1 0.8 1.2
WETTED WIDTH (m) 1.06 0.7 0.8 0.6 0.6 0.9
RES. POOL DEPTH (m) 0.50
W_b Dp (m) 0.19 0.4 0.1 STAGE L M H

GRADIENT % AL 1 0.6 1

EMS MTD
TEMP 7 °C
pH
FLD SNS N
BED MATERIAL Dominant F Subdom. NA
D95 (cm) 0.1 D (cm) 0.1 Morph. LC
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

REQ #
CON D. µS/cm MTD
TURB. T M L C

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total A
Type SWD LWD B U DP OV IV
AMT S T N N N D T
LOC C P A P

CROWN CLOSURE 0 1 2 3 4 5 (0 1-20% 21-40% 41-70% 71-90% >90%)

LWD FNC N P A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		MTD
						R___ F___		
						R___ F___		
						R___ F___		

428

HABITAT QUALITY: No salmonid habitat — borderline stream/NCD — stream section b/w wetlands, substrate comprised of up fines. No S, O or R for salmonids. Documented NFH d/s in three sites.
Stream after flows through flooded bottom with barely any scoured channel

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1290	ST	X	No scale - Wetland - NCD
↓	1291	↓	D	Flooded valley - b>>b
	1292		U	Bank
	1293		D	Bank

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Becomes NCD @ UTM 10. 324141. 5971744 (pt 415) where valley becomes flooded & swampy.

C:

S6/NCD

429

SITE CARD

STREAM NAME (gaz.) (local) BLK A84450-1
WATERSHED CODE
ILP MAP # 50102 NID MAP # NID #
REACH # 1 SITE # 174 FIELD UTM 10 336278 5980547 6F3 SITE LG 450.0 ACCESS FT
DATE 20180912 9 TIME 10:55 AGENCY CO16 CREW MJ, DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H

GRADIENT %

EMS MTD
TEMP °C
pH
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

REQ #
CON D. µS/cm MTD
TURB. T M L C

No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE 0 1 2 3 4 5 (0 1-20% 21-40% 41-70% 71-90% >90%)

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		MTD
						R___ F___		
						R___ F___		
						R___ F___		

430

HABITAT QUALITY: NFH — seepage/meltwater runoff — wide puddles connected together but no fluvial deposits or distinct scoured channel bed — not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1294	ST	D	Bank

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Unmapped drainage pt 1824 marks upper extent of this drainage

C:

NCD

431

SITE CARD

STREAM NAME (gaz.) (local) A-84450-1
WATERSHED CODE
ILP MAP # 50101 NID MAP # NID #
REACH # 3 SITE # 175 FIELD UTM 10 336140 5980247 6F3 SITE LG 250.0 ACCESS FT
DATE 20180912 9 TIME 11:15 AGENCY CO16 CREW MJ, DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H

GRADIENT %

EMS MTD
TEMP °C
pH
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

REQ #
CON D. µS/cm MTD
TURB. T M L C

No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE 0 1 2 3 4 5 (0 1-20% 21-40% 41-70% 71-90% >90%)

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		MTD
						R___ F___		
						R___ F___		
						R___ F___		

432

HABITAT QUALITY: NFH — seepage with occasional surface flow, puddles with overhanging veg, no scour or fluvial — not a stream
Flows through a 15 cm wide swale

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1295	ST	U	Bank

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: 18

C:

NCD

433

SITE CARD

STREAM NAME (gaz.) (local) A 84450-2
WATERSHED CODE
ILP MAP # ED203 NID MAP # NID #
REACH # 2 SITE # 176 FIELD UTM 10 338905 5981878 6F3 SITE LG 520.0 ACCESS FT
DATE 20180913 9 TIME 13:10 AGENCY CO16 CREW MJ, DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H

GRADIENT % AL 16 1

EMS MTD
TEMP °C
pH
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

REQ #
CON D. µS/cm MTD
TURB. T M L C

No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC

CROWN CLOSURE 0 1 2 3 4 5 (0 1-20% 21-40% 41-70% 71-90% >90%)

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		MTD
						R___ F___		
						R___ F___		
						R___ F___		

434

HABITAT QUALITY: NFH — seepage — heavily noticeable by the presence of horsetail/feather moss & twinberries — wet area ~ 20-30 m wide
P

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1296	ST	U	Bank - channel.
↓	1297	ST	U	Bank - disappearing pt.
↓	1298	ST	U	Bank - NCD

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: pt 186 - six meters out
187 - disappears completely
Becomes steep & tiny stream @ pt 186. CW = 0.5m
60%

C:

NCD/SC

435

SITE CARD

- STREAM NAME (gaz.): (local) A 84450-2
- WATERSHED CODE:
- ILP MAP #: | ILP # 50202 | NID MAP #: | NID #:
- REACH # 1 | SITE # 177 | FIELD UTM 10 338696 5981732 GP3 | SITE LG 100 0 | ACCESS FT
- DATE 2008 09 29 | TIME 14 05 | AGENCY C016 | CREW MJ DJ | FISH FORM Y ☐ N ☒
- STAGE L M H | No Vis. Ch. ☒ | Dry/Int. ☐ | DW ☐ | Tribs. ☐

CHANNEL / COVER / CROWN CLOSURE / MORPHOLOGY / FEATURES: (crossed out)

436

HABITAT QUALITY: NFH – seepage through swale, some dry puddles & occasional scour, no fluvium, no continuity – not a stream!

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1299	ST	U	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

437

SITE CARD

- STREAM NAME (gaz.): (local) A 84450-2
- WATERSHED CODE:
- ILP MAP #: | ILP # 50201 | NID MAP #: | NID #:
- REACH # 1 | SITE # 178 | FIELD UTM 10 338823 5981628 GP3 | SITE LG 200 0 | ACCESS FT
- DATE 2008 09 29 | TIME 14 30 | AGENCY C016 | CREW MJ DJ | FISH FORM Y ☐ N ☒
- STAGE L M H | No Vis. Ch. ☒ | Dry/Int. ☐ | DW ☐ | Tribs. ☐

CHANNEL / COVER / CROWN CLOSURE / MORPHOLOGY / FEATURES: (crossed out)

438

HABITAT QUALITY: NFH

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: No drainage present @ mapped location

ND

439

SITE CARD

- STREAM NAME (gaz.): (local) BLK A 84453
- WATERSHED CODE:
- ILP MAP #: | ILP # 45304 | NID MAP #: | NID #:
- REACH # 1 | SITE # 179 | FIELD UTM 10 345352 5974476 GP3 | SITE LG 100 0 | ACCESS FT
- DATE 2008 09 30 | TIME 09 45 | AGENCY C016 | CREW MJ DJ | FISH FORM Y ☐ N ☒
- STAGE L M H | No Vis. Ch. ☒ | Dry/Int. ☐ | DW ☐ | Tribs. ☐

CHANNEL / COVER / CROWN CLOSURE / MORPHOLOGY / FEATURES: (crossed out)

440

HABITAT QUALITY: NFH – seepage through valley, (horsetail, twinberries, Mnium spp) – no scour, fluvium, banks, isolated mud puddles – not a stream

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1300	ST	U	No scale

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: GPS 54 on bdry ~ 40 m u/s

NCD

441

SITE CARD

- STREAM NAME (gaz.): (local) BLK A84453
- WATERSHED CODE: 180-374000-95200-12500-8970
- ILP MAP #: | ILP # 45303 | NID MAP #: | NID #:
- REACH # 4 | SITE # 180 | FIELD UTM 10 345166 5974603 GP3 | SITE LG 450 0 | ACCESS FT
- DATE 2008 09 30 | TIME 10 05 | AGENCY C016 | CREW MJ DJ | FISH FORM Y ☒ N ☐

CHANNEL	mthd							
CHANNEL WIDTH (m)	T	1.3	1.1	1.7	1.3	1.8	1.4	(1.43)
WETTED WIDTH (m)	T	1.0	0.9	1.2	1.3	1.2	1.4	
RES. POOL DEPTH (m)	MS	0.14	0.41	0.37				
Wb Dp (m)	0.5	0.5	0.42	0.44				

- GRADIENT %: AL; 2, 3; 3.5
- STAGE: L (circled) | No Vis. Ch. ☐ | Dry/Int. ☐ | DW ☐ | Tribs. ☐
- COVER Total: A

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	S	D	S	T	N
LOC	P	P	P	P	P	P	

- CROWN CLOSURE: 2 (21-40%)
- LWD FNC: F | DIST: E | INSTREAM VEG: N
- LB SHP: U | RB SHP: U
- TEXTURE (LB): F, C, B | TEXTURE (RB): F, C, B
- RIP. VEG. (LB): C | RIP. VEG. (RB): C
- STAGE (LB): MF | STAGE (RB): MF
- EMS: | TEMP 8 °C T3 | pH: | REQ #: | CON D. 85 µS/cm S3 | TURB. C
- FLD SNS: N
- BED MATERIAL Dominant F | Subdom. C
- D95 (cm) 40 | D (cm) 2 | Morph. RP
- DISTURBANCE INDICATORS:
- PATTERN: SI | ISLANDS: N | BARS: N | COUPLING: DC | CONFINEMENT: OC

FEATURES: (blank)

442

HABITAT QUALITY:
R - M-G - deep pools present, good CB cover
S - N - larges & fines in subst
O - F - some pools may be sufficient, however too much org. may cause O_2 depletion
Not conducive for RB

FSZ ☐

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1301	ST	U	Book
DIG	1302	ST	D	Book

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS:
Channel deeply incised with freq bridged banks
Xing UTM. 10.344953.5974545
Δ 123 = 3+243 m
GPS layout pt 33
GPS @ 2A = 54/56

CW xing = 1.4, 2.1, 1.6, 1.4, 1.1, 1.1
WB xing = 0.49, 0.41, 0.52, 0.55, 0.48, 0.48
% xing = 2, 2, 1

(S6)

443

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK A84453 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 180|3|7|4|2|0|9|5|2|0|0|1|2|5|0|0|8|9|7|0
WATERBODY ID ILP MAP # ILP # 45303 SITE/LAKE CARD ATTACHED ☒Y ☐ N
PROJECT ID REACH # 4 FISH PERMIT # SM08-45742
DATE 20|08|09|30 to YYYY MM DD AGENCY CO16 CREW MJ, DS ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
180			10 344566 5974603 GPS	EF 1	8	85	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
180	EF 1	P	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

444

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	180	EF 1	1	1005	1100	427	450	1.2	0	500	80	6	SA	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__

445

SITE CARD

STREAM NAME (gaz.) (local) A84453
WATERSHED CODE 180|3|7|4|2|0|9|5|2|0|0|1|2|5|0|0|8|9|7|0
ILP MAP # ILP # 45303 NID MAP # NID #
REACH # 5 SITE # 181 FIELD UTM 10 344343 5974476 GPS SITE LG 100 | 0 ACCESS FT
DATE 20|08|09|30 TIME 1145 AGENCY CO16 CREW MJ, DS FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % MTD

WATER
EMS MTD REQ # MTD
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT							
	LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 | 1 | 2 | 3 | 4 | 5

LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: beavdam | aban ch | erdbk | avul | SWD | LWD | jam : 01 | B1 | B2 | B3 | D1 | D2 | D3
ex rf | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr : C1 | C2 | C3 | C4 | C5 | S1 | S2 | S3 | S4 | S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

446

HABITAT QUALITY: NFH - extension of W b/w two dry lands, squishy ground, no scour, not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1303	ST	U	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD/WS?

447

SITE CARD

STREAM NAME (gaz.) (local) BLK A84453
WATERSHED CODE
ILP MAP # ILP # 4530 NID MAP # NID #
REACH # 4 SITE # 182 FIELD UTM 10 344709 5973926 GPS SITE LG 100 | 0 ACCESS FT
DATE 20|08|09|30 TIME 1230 AGENCY CO16 CREW MJ, DS FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % MTD

WATER
EMS MTD REQ # MTD
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT							
	LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 | 1 | 2 | 3 | 4 | 5

LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: beavdam | aban ch | erdbk | avul | SWD | LWD | jam : 01 | B1 | B2 | B3 | D1 | D2 | D3
ex rf | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr : C1 | C2 | C3 | C4 | C5 | S1 | S2 | S3 | S4 | S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

448

HABITAT QUALITY: NFH - seepage - headwaters of stream, some scouring & channelization, process begins w/in 50m Long section u/s of small W before seepage dissipates

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1304	ST	U	No scale
D16	1305	ST	U	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: pt 195 - disc. chan & scour w/in steeper (3-5%) section & then standing pools of water all over grasses all over. Becomes stream @ UTM to 344685, 5973653. NCD

449

SITE CARD

STREAM NAME (gaz.) (local) BLK A84453
WATERSHED CODE
ILP MAP # ILP # 4530 NID MAP # NID #
REACH # 2 SITE # 183 FIELD UTM 10 344356 5973322 GPS SITE LG 200 | 0 ACCESS FT
DATE 20|08|09|30 TIME 1315 AGENCY CO16 CREW MJ, DS FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m) T 0.80 0.60 0.80 0.50 0.80 0.90
WETTED WIDTH (m) T 0.70 0.10 0.50 0.20 0 0
RES. POOL DEPTH (m) T 0 0 0 0 0 0
W_b Dp (m) 0.30 0.20 0.10 0.20 STAGE D M H No Vis. Ch. ☐ Dry/Int. ☒ DW ☐ Tribs. ☐

GRADIENT % MTD FL 14 11 8 15

WATER
EMS MTD REQ # MTD N
TEMP 8 °C CON D. 5 µS/cm SP
pH TURB. T M L C LO
FLD SNS
BED MATERIAL C Subdom. G
D95 (cm) 20 D (cm) 7 Morph. CP

COVER T Total

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT	N	N	S	N	N	D	N
	LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% : 0 | 1 | 2 | 3 | 4 | 5

LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

DISTURBANCE INDICATORS: beavdam | aban ch | erdbk | avul | SWD | LWD | jam : 01 | B1 | B2 | B3 | D1 | D2 | D3
ex rf | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr : C1 | C2 | C3 | C4 | C5 | S1 | S2 | S3 | S4 | S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		

450

HABITAT QUALITY: NFH - seasonal, moderately steep trickle with no ISC, No isolated fish populations I dispersal d/s

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1306	ST	U	Book
D16	1307	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: Beaver NCD @ UTM 10, 344685, 5973653

S6/NCD

451

SITE CARD

STREAM NAME (gaz.) (local) BLK A84456
WATERSHED CODE
ILP MAP # ILP # 45603
REACH # 1 SITE # 184 FIELD UTM 10 341895 5969903 GPS SITE LG 100 0 ACCESS FT
DATE 2008 09 30 TIME 1515 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒
NID MAP # NID #

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

WATER
EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% : 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: 01 beavdam, B1 aban ch, B2 erdbk, B3 avul, D1 SWD, D2 LWD, D3 jam; C1 ex rif, C2 no pl, C3 elev br, C4 mult ch, C5 dis line, S1 horn bd, S2 finger, S3 lg wdg, S4 ex bar, S5 ex bd scr
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(452)

HABITAT QUALITY NFH

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
	No drainage @ sampled location		NA

(453)

SITE CARD

STREAM NAME (gaz.) (local) BLK A84456
WATERSHED CODE
ILP MAP # ILP # 45602
REACH # 1 SITE # 185 FIELD UTM 10 341172 5969455 GPS SITE LG 100 0 ACCESS FT
DATE 2008 09 30 TIME 1535 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒
NID MAP # NID #

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

WATER
EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% : 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: 01 beavdam, B1 aban ch, B2 erdbk, B3 avul, D1 SWD, D2 LWD, D3 jam; C1 ex rif, C2 no pl, C3 elev br, C4 mult ch, C5 dis line, S1 horn bd, S2 finger, S3 lg wdg, S4 ex bar, S5 ex bd scr
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(454)

HABITAT QUALITY NFH – seepage – no scour, channel or fluvium – just squishy ground

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1308	ST	U	N. aside

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
			NCD

(455)

SITE CARD

STREAM NAME (gaz.) (local) BLK A84456
WATERSHED CODE
ILP MAP # ILP # 45601
REACH # 1 SITE # 186 FIELD UTM 10 341609 5970475 GPS SITE LG 100 0 ACCESS FT
DATE 2008 09 30 TIME 1605 AGENCY CO16 CREW MJ DJ FISH FORM Y☐ N☒
NID MAP # NID #

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % A2 17 25

WATER
EMS
TEMP °C
pH
REQ #
CON D. µS/cm
TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% : 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: 01 beavdam, B1 aban ch, B2 erdbk, B3 avul, D1 SWD, D2 LWD, D3 jam; C1 ex rif, C2 no pl, C3 elev br, C4 mult ch, C5 dis line, S1 horn bd, S2 finger, S3 lg wdg, S4 ex bar, S5 ex bd scr
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(456)

HABITAT QUALITY NFH – drainage with discontinuous scoured channel bed & fluvial deposits through 20% V-shape Gully

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1309	ST	BD	Brook
DIG	1310	ST	BD	Brook

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
			NCD

(457)

SITE CARD

STREAM NAME (gaz.) (local) BLK A84458-2
WATERSHED CODE 18013704001951020141401028701581401309
ILP MAP # ILP # 58201
REACH # 6 SITE # 187 FIELD UTM 10 343299 5974223 GPS SITE LG 420 0 ACCESS FT
DATE 2008 10 01 TIME 1045 AGENCY CO16 CREW MJ DJ FISH FORM Y☒ N☐
NID MAP # NID #

CHANNEL mthd
CHANNEL WIDTH (m) T 1.9 1.4 2.0 1.8 1.9 1.7
WETTED WIDTH (m) T 0.9 0.8 1.1 0.9 0.6 0.6
RES. POOL DEPTH (m) MS 0.17 0.33 0.37
W_b Dp (m) 0.33 0.37 STAGE L M H
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % A2 13 15

WATER
EMS
TEMP 7 °C T3
pH
REQ #
CON D. Co µS/cm Sp
TURB. T M L D EE
FLD SNS Evasion
BED MATERIAL Dominant C Subdom. G
D95 (cm) 50 D (cm) 13 Morph. CP

COVER Total M
Type SWD LWD B U DP OV IV
AMT T S D N N T N
LOC C C P N
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% : 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U O S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS: 01 beavdam, B1 aban ch, B2 erdbk, B3 avul, D1 SWD, D2 LWD, D3 jam; C1 ex rif, C2 no pl, C3 elev br, C4 mult ch, C5 dis line, S1 horn bd, S2 finger, S3 lg wdg, S4 ex bar, S5 ex bd scr
PATTERN TM ME IM IR SI ST
ISLANDS N O I S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC
CONFINEMENT EN FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

(458)

HABITAT QUALITY R-P- v. little LSC, virtually no pools (I observed does not provide cover @ MJ's HF). Channel prone to erosion w/o steeper (~12-14%) section - almost doubles width there where S ~ 6-7%. No SorD.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1311	ST	U	Brook
DIG	1312	ST	D	Brook

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C		C	
1	C13 ~ 13 mm within 6-7% slope. All measurements within 180 m length u/s from site		56

(459)

COMBINED FISH COLLECTION

GAZETTED NAME (local) A84458 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE 1|1|2|0|3|7|4|0|1|0|1|0|9|5|2|P|0|1|4|1|4|0|P|2|8|7|0|1|5|8|4|0|3|0|9|
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 6 – FISH PERMIT # SM08-45742
DATE 2|0|0|8|1|0|0|1 to AGENCY C016 CREW MJ, DS ☐ RE-SAMPLE

SITE/METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
187			10 343299 5974223 GPS	EF 1	7	60	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
187	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(460)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	187	EF 1	1	1100	1145	439	420	1	0	600	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

(461)

SITE CARD

STREAM NAME (gaz.) (local) Blk A84458-2
WATERSHED CODE
ILP MAP # ILP # 58202 NID MAP # NID #
REACH # 2 SITE # 188 FIELD UTM 10 342817 5974249 GPS SITE LG 4200 ACCESS FT
DATE 2|1|9|0|8|1|0|0|1 TIME 1240 AGENCY C016 CREW MJ, DS FISH FORM Y ☒ N ☐

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.2	1.2	1.1	0.9	1.0	1.0				
WETTED WIDTH (m)	T	1.0	0.7	0.5	0.6	0.8	0.9				
RES. POOL DEPTH (m)	RS	0.14	0.33	0.29	0.17	0.34	0.37	0.31			
W_b Dp (m)	0.26	0.38	0.40	0.29	STAGE	L	M	H			

GRADIENT % MTD: AL; 9; 6; 6; 4
No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total 4

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	T	T	T	S	D	T	N
LOC	P	C	P	P	P	P	

CROWN CLOSURE: 0 | 1 | 2 | 3 | 4 | 5 (1-20% | 21-40% | 41-70% | 71-90% | > 90%)

LWD FNC	N	F	A	DIST	C	E
LB SHP	U	V	S	O		
TEXTURE	F	G	C	B	R	A
RIP. VEG.	N	G	S	C	D	M	W
STAGE	INIT	SHR	PS	YF	MF	NA

INSTREAM VEG	N	A	M	V			
RB SHP	U	V	S	O			
TEXTURE	F	G	C	B	R	A	
RIP. VEG.	N	G	S	C	D	M	
STAGE	INIT	SHR	PS	YF	MF	NA	

WATER

EMS											
TEMP	7	°C	T	REQ #							
pH				CON D.	30	µS/cm	S				
				TURB.	T	M	L	C			

FLD SNS N
BED MATERIAL Dominant G Subdom. F
D95 (cm) 35 D (cm) 7 Morph. SP

DISTURBANCE INDICATORS

	beavdam	aban ch	erdbk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	

ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN	TM	ME	IM	IR	SI	ST			
ISLANDS	N	O	I	F	S	AN			
BARS	N	SIDE	DIAG	MID	SPAN	BR			
COUPLING	DC	PC	CO						
CONFINEMENT	EN	CO	FC	OC	UN	N/A			

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			P	1		R186 F313	impassable not vertical	10 342817 5974249 GPS
						R__ F__	over R @ 60% plunge	
						R__ F__	pool too shallow	
						R__ F__		

(462)

HABITAT QUALITY

R - Good potential in abundant SP/CB cover
G - Good - G abundant in pool's overstr. good holding
O - F.M.V. likely pools are sufficient

Habitat isolated d/t small but impassable R Falls
Flows to NFB stream (documented Hi year)

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1313	ST	UP	Falls
	1314		UP	Pool
	1315		D	— " —
DIG	1316	ST	UP	Pool - strm u/s of small W

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Xing UTM = 10.342531.5974490
All the same o/o = 4,23

S6

(463)

COMBINED FISH COLLECTION

GAZETTED NAME (local) A84458-2 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 58202 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 2 – FISH PERMIT # SM08-45742
DATE 2|0|0|8|1|0|0|1 to AGENCY C016 CREW MJ, DS ☐ RE-SAMPLE

SITE/METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON	STREAM CONDITION TURB.	COMMENTS
188			10 342817 5974249 GPS	EF 1	7	70	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
188	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(464)

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	188	EF 1	1	1240	1320	487	420	1.0	0	700	20	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

(465)

SITE CARD

STREAM NAME (gaz.) (local) A84458-1
WATERSHED CODE
ILP MAP # ILP # 58202 NID MAP # NID #
REACH # 4 SITE # 189 FIELD UTM 10 342439 5974780 GPS SITE LG 2000 ACCESS FT
DATE 2|0|0|8|1|0|0|1 TIME 1405 AGENCY C016 CREW MJ, DS FISH FORM Y ☐ N ☒

CHANNEL mthd

CHANNEL WIDTH (m)											
WETTED WIDTH (m)											
RES. POOL DEPTH (m)											
W_b Dp (m)					STAGE	L	M	H			

GRADIENT % MTD:
No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

CROWN CLOSURE: 0 | 1 | 2 | 3 | 4 | 5 (1-20% | 21-40% | 41-70% | 71-90% | > 90%)

LWD FNC	N	F	A	DIST	C	E
LB SHP	U	V	S	O		
TEXTURE	F	G	C	B	R	A
RIP. VEG.	N	G	S	C	D	M
STAGE	INIT	SHR	PS	YF	MF	NA

INSTREAM VEG	N	A	M	V			
RB SHP	U	V	S	O			
TEXTURE	F	G	C	B	R	A	
RIP. VEG.	N	G	S	C	D	M	
STAGE	INIT	SHR	PS	YF	MF	NA	

WATER

EMS											
TEMP		°C		REQ #							
pH				CON D.		µS/cm					
				TURB.	T	M	L	C			

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS

	beavdam	aban ch	erdbk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	

ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN	TM	ME	IM	IR	SI	ST			
ISLANDS	N	O	I	F	S	AN			
BARS	N	SIDE	DIAG	MID	SPAN	BR			
COUPLING	DC	PC	CO						
CONFINEMENT	EN	CO	FC	OC	UN	N/A			

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(466)

HABITAT QUALITY

NFH - small tributary occasionally channelized through small & narrow wetland (W 10-15 m wide)

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1318	ST	UP	Pool

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

NCD / NCW

(467)

SITE CARD

STREAM NAME (gaz.) (local) A 84458-1
WATERSHED CODE
ILP MAP # ILP # 58101 NID MAP # NID #
REACH # SITE # 190 FIELD UTM 10 341855 5975181 GPS SITE LG 100.0 ACCESS FT
DATE 20 08 10 01 TIME 1 15 30 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %

COVER: Total
Type: SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90% → 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

WATER: EMS · REQ # · TEMP °C · CON D. µS/cm · pH · TURB. T M L C
MORPHOLOGY: FLD SNS · BED MATERIAL Dominant Subdom. · D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam | 01 B1 B2 B3 D1 D2 D3 | ex rf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (×4)

HABITAT QUALITY: NFH - seepage through gully with occasionally remnant drift layer by mining water down snowmelt. Dry, soft stable for water flows through some scoured bluffs but discontinuous & no gluvium, cobbles dispersed in places

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1319	95	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

(468) (469)

SITE CARD

STREAM NAME (gaz.) (local) A 84458-1
WATERSHED CODE
ILP MAP # ILP # 58103/83019 NID MAP # NID #
REACH # 4 SITE # 191 FIELD UTM 10 341605 5975734 GPS SITE LG 100.0 ACCESS FT
DATE 20 08 10 01 TIME 1 7 55 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %

COVER: Total
Type: SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90% → 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

WATER: EMS · REQ # · TEMP °C · CON D. µS/cm · pH · TURB. T M L C
MORPHOLOGY: FLD SNS · BED MATERIAL Dominant Subdom. · D95 (cm) D (cm) < Morph.
DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam | 01 B1 B2 B3 D1 D2 D3 | ex rf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (×4)

HABITAT QUALITY: NFH - ~ 10 m wide seepage through swale - not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1320	55	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
NCD

(470) (471)

SITE CARD

STREAM NAME (gaz.) (local) A 84458-1
WATERSHED CODE
ILP MAP # ILP # 58102 NID MAP # NID #
REACH # 1 SITE # 192 FIELD UTM 10 341646 5975724 GPS SITE LG 100.0 ACCESS FT
DATE 20 08 10 01 TIME 1 5 15 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT %

COVER: Total
Type: SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90% → 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

WATER: EMS · REQ # · TEMP °C · CON D. µS/cm · pH · TURB. T M L C
MORPHOLOGY: FLD SNS · BED MATERIAL Dominant Subdom. · D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam | 01 B1 B2 B3 D1 D2 D3 | ex rf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (×4)

HABITAT QUALITY: NFH

FSZ ☐

PHOTO DOCUMENTATION: No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C — Drainage does not exist | C
ND

(472) (473)

SITE CARD

STREAM NAME (gaz.) (local) 3Lk A 84453
WATERSHED CODE
ILP MAP # 45302 NID MAP # NID #
REACH # 5 SITE # 193 FIELD UTM 10 343892 5973131 GPS SITE LG 310.0 ACCESS FT
DATE 20 08 10 01 TIME 1 1 30 AGENCY CO16 CREW MJ DJ FISH FORM Y N

CHANNEL mthd
CHANNEL WIDTH (m) T 1.0 1.9 1.6 1.4 1.6 1.1
WETTED WIDTH (m) T 0.5 0.8 0.6 0.7 0.9 0.9
RES. POOL DEPTH (m) MS 0.11 0.09
W_b Dp (m) 0.5 0.5 0.4 0.3 STAGE L M H
No Vis. Ch. DW Dry/Int. Tribs.
GRADIENT % 1.5 1.0 4 3

COVER: Total A
Type: SWD LWD B U DP OV IV
AMT S T T D T S N
LOC C C C C C C
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90% → 0 1 2 (3) 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

WATER: EMS 8 °C T3 · REQ # · TEMP · CON D. 110 µS/cm 54 · pH · TURB. T M L C
MORPHOLOGY: FLD SNS N · BED MATERIAL Dominant F Subdom. C · D95 (cm) 18 D (cm) 3 Morph. RP
DISTURBANCE INDICATORS: beavdam aban ch erdbk avul SWD LWD jam | 01 B1 B2 B3 D1 D2 D3 | ex rf no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (×4)

HABITAT QUALITY: R-F - good cover under CB
S - none - mussed C/F
O - none - too shallow
Storm disappears d/s

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1321	2T	U	Book
DIG	1322	2T	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C — @ 205 → NCD in dec area UTM = 10, 343731, 5973473
Xline UTM 10, 343817, 5973278
CW = 1.0, 1.9, 1.6, 1.4, 1.6, 1.1
WB = 0.5, 0.8, 0.6, 0.7, 0.9, 0.9
% = 1.5, 1.0, 4, 3
42
| C — Frequently bridged Narrow CB - v. deep
zapped 247 sec/500 nm 9/08/16

(474) (475)

FISH COLLECTION FORM

GAZETTED NAME (local) A 84453 LAKE STREAM WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 45302 SITE/LAKE CARD ATTACHED Y N
PROJECT ID REACH # 5 D FISH PERMIT # SM08-45742
DATE 20081090 to YY MM DD AGENCY CO16 CREW MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
193			10 343892 5973131 GPS	EF 1	8	110	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
193	EF 1	1	NFC			0				

(476)

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
193	EF 1	1	1130	1150	247	300	0.8	0	400	80	6	SR	12B

COMMENTS

(477)

COMBINED FISH COLLECTION

GAZETTED NAME (local) A 84458 LAKE STREAM WETLAND
WATERSHED CODE 1 2 0 3 7 4 0 0 0 9 5 2 0 1 0 4 1 4 0 0 2 8 7 0 5 2 4 0 3 0 9
WATERBODY ID ILP MAP # ILP # 58201 SITE/LAKE CARD ATTACHED Y N
PROJECT ID REACH # 4,2 FISH PERMIT # SM08-45742
DATE 20081002 to YY MM DD AGENCY CO16 CREW MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
194			10 342258 5972970 GPS	EF 1	8	50	C	Re-sampling

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
194	EF 1	1	NFC			0				

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

(478)

ELECTROFISHER SPECIFICATIONS

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	194	EF 1	1	1315	1405	454	450	1.5	0	600	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__
																R__ F__

C/X - barrier @ M & HF, passable to fish @ low flows but apparently stream not utilized by RB, NFC in RB,

(479)

SITE CARD

STREAM NAME (gaz.) (local) A 84454-3
WATERSHED CODE
ILP MAP # ILP # 54301 NID MAP # NID #
REACH # 879 SITE # 195 FIELD UTM 10 343397 5976131 GPS SITE LG 600 10 ACCESS FT
DATE 20081002 TIME 1525 AGENCY CO16 CREW MJ, DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.0	0.9	0.9	0.6	1.1	0.8				
WETTED WIDTH (m)	T	0.8	0.5	0.4	0.4	0.7	0.2				
RES. POOL DEPTH (m)	J	0.1	0.2	0.4							

GRADIENT % MTD: AL 4 8 11

W_b Dp (m) 0.2 0.7 0.1 0.2 STAGE I M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total A

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT	S	T	T	D	T	T	N
	LOC	C	C	C	C	C	C	

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90% → 0 1 2 3 4 5

LWD FNC N F A DIST C E
LB SHP R U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP R U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

WATER

EMS REQ #
TEMP 9 °C T3 CON D. 40 µS/cm S4
pH TURB. T M L C E

FLD SNS N
BED MATERIAL Dominant F Subdom. C
D95 (cm) 15 D (cm) 2 Morph. CP

MORPHOLOGY

DISTURBANCE INDICATORS: beavdam, aban ch, entbk, avul, SWD, LWD, jam → 01 B1 B2 B3 D1 D2 D3
ex riff, no pl, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd ext → C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(480)

HABITAT QUALITY

NFH - borderline stream/NCD, some overland flow present but scoured channel prevails overall, frequent bankfull bankfull benches, No R, S, D, Creek tiny, too little visible habitat for fish, invertebrates V. sclerose, not conducive hab for RB,
Sections of NGF 12-15 mm long

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1326	GT	U	Book
DIG	1327	GT	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Becomes NCD @ UTM 10, 343377, 5975727

56

(481)

SITE CARD

STREAM NAME (gaz.) (local) A84454-3
WATERSHED CODE
ILP MAP # ILP # 54302 NID MAP # NID #
REACH # 1 SITE # 196 FIELD UTM 10 343457 5976070 GPS SITE LG 100 0 ACCESS
DATE 20081002 TIME 1510 AGENCY CO16 CREW MJ, DJ FISH FORM Y N

CHANNEL mthd

CHANNEL WIDTH (m)											
WETTED WIDTH (m)											
RES. POOL DEPTH (m)											

GRADIENT % MTD:

W_b Dp (m) STAGE L M H No Vis. Ch. X DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT							
	LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | > 90% → 0 1 2 3 4 5

LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

WATER

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

MORPHOLOGY

DISTURBANCE INDICATORS: beavdam, aban ch, entbk, avul, SWD, LWD, jam → 01 B1 B2 B3 D1 D2 D3
ex riff, no pl, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd ext → C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R__ F__		
						R__ F__		
						R__ F__		
						R__ F__		

(482)

HABITAT QUALITY

NFH

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: No drainages present @ mapped location & visibly

ND

(483)

SITE CARD

STREAM NAME (gaz.) (local) A84454-3
WATERSHED CODE
ILP MAP # ILP # 54303 NID MAP # NID #
REACH # 1 SITE # 197 FIELD UTM 10 341463 5976189 GPS SITE LG 100.0 ACCESS V4
DATE 2 0 0 8 1 0 0 2 TIME 1 6 1 5 AGENCY CO16 CREW MJ, BJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % MTD

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 | ex rif no pl elev br mult ch dis line horn bd finger tg widg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) mthd | PHOTO | COMMENTS | UTM MTD
R___ F___

484

HABITAT QUALITY: NFM - seepage through swale, squishy ground, occasional pond puddles, no scour, floor of channel - not a stream.
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1328	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS C

NCD

485

SITE CARD

STREAM NAME (gaz.) (local) BLK A84454-2
WATERSHED CODE
ILP MAP # ILP # 54201 NID MAP # NID #
REACH # 6&7 SITE # 198 FIELD UTM 10 341443 5977744 GPS SITE LG 220.0 ACCESS V4
DATE 2 0 0 8 1 0 0 3 TIME 0 8 4 5 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☒ N ☐

CHANNEL mthd
CHANNEL WIDTH (m) T 4.5 3.9 4.4 3.4 2.9 3.3
WETTED WIDTH (m) T 3.3 2.6 3.9 1.8 1.7 1.8
RES. POOL DEPTH (m) MS 0.41 0.23 0.39
W_b Dp (m) 0.58 0.56 0.49 0.47 STAGE L M H No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % AL
3 3
1 2.5

WATER
EMS REQ #
TEMP 7 °C TE CON D. 40 µS/cm 54
pH TURB. T M L (T) 5.5
FLD SNS None
BED MATERIAL Dominant C Subdom. G
D95 (cm) 45 D (cm) 18 Morph. RP

COVER Total M
Type SWD LWD B U DP OV IV
AMT T T D T S T
LOC P P P P P P
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 | ex rif no pl elev br mult ch dis line horn bd finger tg widg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) mthd | PHOTO | COMMENTS | UTM MTD
R___ F___

486

HABITAT QUALITY: R-F-M - creek has not too much good ISC @ higher flows particularly
S-P- only V. sparse & small gravel particles present but appeared by high flows during spawning season
O-P-F- Deep pools rare, but some maybe sufficient sparse RB population
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1329	ST	U	Book
DIG	1330	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS C

53

487

COMBINED FISH COLLECTION

GAZETTED NAME (local) BLK A84454-2 ☐ LAKE ☒ STREAM ☐ WETLAND
WATERSHED CODE
WATERBODY ID ILP MAP # ILP # 54201 SITE/LAKE CARD ATTACHED ☒ Y ☐ N
PROJECT ID REACH # 6&7 FISH PERMIT # SM08-45742
DATE 2 0 0 8 1 0 0 3 to AGENCY CO16 CREW MJ, DJ ☐ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB	COMMENTS
198			10 341443 5977744 GPS	EF, 1	7	40	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
198	EF, 1	1	RB			2	59	76	R	V. sparse

GEAR SPECIFICATIONS NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

488

C	SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
	198	EF, 1	1	1020	1040	219	100	2	0	700	80	6	SR	12B

C	SITE #	MTD / #	H / P	SPEC.	LENGTH	WEIGHT	SEX	MATUR.	AGE STRUCTURE	AGE SAMPLE #	AGE	VOUCHER #	GENETIC STRUCTURE	GENETIC SAMPLE #	COMMENTS	PHOTO
	198	EF, 1	1	RB	59											R___ F___
	198	EF, 1	1	RB	76											R___ F___

489

SITE CARD

STREAM NAME (gaz.) (local) A84454-1
WATERSHED CODE
ILP MAP # ILP # 54101 NID MAP # NID #
REACH # 1 SITE # 199 FIELD UTM 10 340408 5976992 GPS SITE LG 100.0 ACCESS FT
DATE 2 0 0 8 1 0 0 3 TIME 1 0 5 0 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ Dry/Int. ☐ DW ☐ Tribs. ☐

GRADIENT % MTD

WATER
EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90% | 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
DISTURBANCE INDICATORS 01 B1 B2 B3 D1 D2 D3 | ex rif no pl elev br mult ch dis line horn bd finger tg widg ex bar ex bd scr | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES
C | NID MAP # | NID # | TYPE | HT / LG (m) mthd | PHOTO | COMMENTS | UTM MTD
R___ F___

490

HABITAT QUALITY: NFM - seepage through alder/twinberries patch - not a stream
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1331	ST	X	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS C

NCD

491

SITE CARD

STREAM NAME (gaz.) (local) A84454-4
WATERSHED CODE
ILP MAP # ILP # 54401
REACH # 2&3 SITE # 200 FIELD UTM 10 340587 5976681 GPS SITE LG 440.0 ACCESS W4
DATE 4/10/03 TIME 1115 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☐

CHANNEL mthd

CHANNEL WIDTH (m)	T	0.8	0.7	0.6	0.7	0.7	0.9
WETTED WIDTH (m)	T	0.6	0.4	0.5	0.5	0.6	0.7
RES. POOL DEPTH (m)	MS	0.1	0				

W_b Dp (m) 0.12 0.19 0.24 0.17 STAGE (L) M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % AL 7 7 10

EMS **REQ #**
TEMP 7 °C T3 **CON D.** 30 µS/cm S4
pH **TURB.** T M (L) C GE

FLD SNS N
BED MATERIAL Dominant F Subdom. G
D95 (cm) 15 **D (cm)** 2 **Morph.** CP

DISTURBANCE INDICATORS

	beavdam	aban ch	erdbk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	
ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) 0 I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC PC (CO)
CONFINEMENT EN (CO) FC OC UN N/A

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	S	T	T	D	N	S	N
LOC	P	P	C	P		P	

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	(2)	3	4	5

LWD FNC N (D) A **DIST** C (E)
LB SHP (U) V S O
TEXTURE (F) G C B R A
RIP. VEG. N G S (C) D M W
STAGE INIT SHR PS YF (MF) NA

INSTREAM VEG T A (M) V
RB SHP (U) V S O
TEXTURE (F) G C B R A
RIP. VEG. N G S (C) D M
STAGE INIT SHR PS YF (MF) NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

492

HABITAT QUALITY
NFH - tiny & seasonal strm, v. shallow, does not provide any viable fish habitat, substrate angular, no gravels, channel deeply incised in sections with bridge. boulders - Documented in 2000 (FIRS) that becomes a seepage in R1

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1332	ST	BD	Book
D16	1333	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C Becomes NCD @ UTM: 10, 340721, 5976450. No more scour / channel & flowing, mostly seepage

96

493

SITE CARD

STREAM NAME (gaz.) (local) A84454-4
WATERSHED CODE
ILP MAP # ILP # 54402 NID MAP # NID #
REACH # 2 SITE # 201 FIELD UTM 10 340360 5976046 GPS SITE LG 270.0 ACCESS FT
DATE 2/10/03 TIME 1215 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N (X)

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.1	1.0	0.9	1.1	1.0	0.9
WETTED WIDTH (m)	T	0.8	0.8	0.6	0.8	1.0	0.6
RES. POOL DEPTH (m)	MS	0.25	0.08				

W_b Dp (m) 0.27 0.24 0.22 STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % AL 11 16 9 7

EMS **REQ #**
TEMP 8 °C T3 **CON D.** 50 µS/cm S4
pH **TURB.** T M (L) C FE

FLD SNS N
BED MATERIAL Dominant G Subdom. C
D95 (cm) 35 **D (cm)** 5 **Morph.** CP

DISTURBANCE INDICATORS

	beavdam	aban ch	erdbk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	
ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) 0 I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC PC (CO)
CONFINEMENT EN (CO) FC OC UN N/A

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	S	T	T	T	D	N	
LOC	P	P	P	C	P		

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	(2)	3	4	5

LWD FNC N (D) A **DIST** C (E)
LB SHP U (V) S O
TEXTURE F (G) C B R A
RIP. VEG. N G S (C) D M W
STAGE INIT SHR PS YF (MF) NA

INSTREAM VEG N A (M) V
RB SHP (U) V S O
TEXTURE F (G) C B R A
RIP. VEG. N G S (C) D M
STAGE INIT SHR PS YF (MF) NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

494

HABITAT QUALITY
NFH - tiny, shallow and moderately steep stream, almost no ISC now and more @ M-HF. Not suitable for any fish

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1334	ST	U	Book
D16	1335	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C Too shallow for EF

S6

495

SITE CARD

STREAM NAME (gaz.) (local) A84454-4
WATERSHED CODE
ILP MAP # ILP # 54403 NID MAP # NID #
REACH # 1 SITE # 202 FIELD UTM 10 340464 5976039 GPS SITE LG 100.0 ACCESS FT
DATE 2/10/03 TIME 1315 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N (X)

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)

W_b Dp (m) STAGE L M H No Vis. Ch. (X) DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

EMS **REQ #**
TEMP °C **CON D.** µS/cm
pH **TURB.** T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) **Morph.**

DISTURBANCE INDICATORS

	beavdam	aban ch	erdbk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	
ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER Total

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

LWD FNC N F A **DIST** C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R F		

496

HABITAT QUALITY
NFH - seasonal runoff with isolated scoured pools (dry now), no continuous scoured bed or flowing - not a stream. Flows through V shaped gully

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1336	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C NCD

497

SITE CARD

STREAM NAME (gaz.) (local) A84454-4
WATERSHED CODE
ILP MAP # ILP # 54404 / 83019 NID MAP # NID #
REACH # 1 SITE # 203 FIELD UTM 10 340375 5974986 GPS SITE LG 200.0 ACCESS FT
DATE 2/10/03 TIME 1410 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N (X)

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.4	1.0	1.2	0.9	0.7	1.0
WETTED WIDTH (m)	T	0.5	0.8	0.4	0.6	0.5	0.8
RES. POOL DEPTH (m)	MS	0.08	0.1	0.24	0.23		

W_b Dp (m) 0.23 0.19 0.25 STAGE (L) M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % AL 8 5 7

EMS **REQ #**
TEMP 8 °C T3 **CON D.** 90 µS/cm S4
pH **TURB.** T M (L) C GE

FLD SNS N
BED MATERIAL Dominant C Subdom. F
D95 (cm) 20 **D (cm)** 4 **Morph.** CP

DISTURBANCE INDICATORS

	beavdam	aban ch	erdbk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	
ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) 0 I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC PC (CO)
CONFINEMENT EN (CO) FC OC UN N/A

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	T	N	T	T	S	D	N
LOC	P		P	P	P	P	

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	(3)	4	5

LWD FNC (N) F A **DIST** C E
LB SHP U (V) S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M W
STAGE INIT SHR PS YF MF (NA)

INSTREAM VEG N A (M) V
RB SHP (U) V S O
TEXTURE (F) G C B R A
RIP. VEG. N G (S) C D M
STAGE INIT SHR PS YF (MF) NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R F		

498

HABITAT QUALITY
NFH - tiny & shallow stream likely seasonal flows, v. poor ISC @ M-HF, no D, SI angular substr, RL more than enough water @ LF to provide meaningful hab

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1337	ST	U	Book
D16	1338	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C Logged to the banks during pre-EFC logging practices, stream appears to be recovering completely, deadfalls w 10m u/s throw X-ing. Flow diverted to rd ditch. No CV

S6

499

SITE CARD

STREAM NAME (gaz.) (local) A 84452-2
WATERSHED CODE
ILP MAP # ILP # 52203/133 NID MAP # NID #
REACH # 3 SITE # 204 FIELD UTM 10 345020 5980922 6P3 SITE LG 725 | 0 ACCESS FT
DATE 2 0 0 8 | 1 0 | 2 | 4 TIME 0 9 0 0P AGENCY CO16 CREW MJ | DS FISH FORM Y☐ N☒

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.6	1.8	1.2	1.4	1.3	1.7					
WETTED WIDTH (m)	T	1.0	1.3	1.0	1.2	0.8	1.0					
RES. POOL DEPTH (m)	M	0.2	0.4	0.16	0.19	0.18						
W_b Dp (m)	0.2	0.2	0.22	0.29	STAGE	L	M	H				

GRADIENT % MTD: 4L | 12.3 | 17 | 2 | 15.5

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total M

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT	S	T	D	N	S	T	N
	LOC	P	P	P	P	P	P	

CROWN CLOSURE: 0 | 1-20% | 21-40% (2) | 41-70% 3 | 71-90% 4 | >90% 5

LWD FNC N F A DIST C B
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

EMS MTD
TEMP 7 °C
pH

FLD SNS
BED MATERIAL Dominant G Subdom. B
D95 (cm) 60 D (cm) 19 Morph. CP

DISTURBANCE INDICATORS: 01 beavdam | B1 aban ch | B2 erdbk | B3 avul | D1 SWD | D2 LWD | D3 jam
C1 ex rif | C2 no pl | C3 elev br | C4 mult ch | C5 dis line | S1 horn bd | S2 finger | S3 lg wdg | S4 ex bar | S5 ex bd scr

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

WATER

REQ #
CON D. 40 µS/cm
TURB. T M L C

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

500

HABITAT QUALITY: NFH - drainage with no perennial habitat steep with any sediment exhibit flows into documented NFB parent stream, lots S, O, R potential limited to only flows, no isolated fish population. Peters out on the flats & becomes NCD

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1339	ST	U	Book
D16	1340	ST	D	Book
D16	1342	ST	BD	Book - NCD section

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Drainage mismapped
Becomes NCD @ UTM
D, 344892, 5981367.
No continuous scored channel bed or flurium.

C:

NCD / S6

501

SITE CARD

STREAM NAME (gaz.) (local) BLK 84452-2
WATERSHED CODE
ILP MAP # ILP # 52205 NID MAP # NID #
REACH # 1 SITE # 204A FIELD UTM 10 344837 5981434 6P3 SITE LG 150 | 0 ACCESS FT
DATE 2 0 0 8 | 1 0 | 0 5 TIME 1 4 0 5 AGENCY CO16 CREW MJ | DS FISH FORM Y☐ N☒

CHANNEL mthd

CHANNEL WIDTH (m)												
WETTED WIDTH (m)												
RES. POOL DEPTH (m)												
W_b Dp (m)					STAGE	L	M	H				

GRADIENT % MTD:

No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT							
	LOC							

CROWN CLOSURE: 0 | 1-20% 1 | 21-40% 2 | 41-70% 3 | 71-90% 4 | >90% 5

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

EMS MTD
TEMP °C
pH

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS: 01 beavdam | B1 aban ch | B2 erdbk | B3 avul | D1 SWD | D2 LWD | D3 jam
C1 ex rif | C2 no pl | C3 elev br | C4 mult ch | C5 dis line | S1 horn bd | S2 finger | S3 lg wdg | S4 ex bar | S5 ex bd scr

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

WATER

REQ #
CON D. µS/cm
TURB. T M L C

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

502

HABITAT QUALITY: NFH - mixed surface flow / discontinuous channel sections / subsurface percolation through forest floor - not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1345	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C:

C:

NCD

503

SITE CARD

STREAM NAME (gaz.) (local) A 84452-2
WATERSHED CODE
ILP MAP # ILP # 52204 NID MAP # NID #
REACH # 1 SITE # 205 FIELD UTM 10 345136 5980800 6P3 SITE LG 200 | 0 ACCESS FT
DATE 2 0 0 8 | 0 9 | 1 4 TIME 1 0 | 1 5 AGENCY CO16 CREW MJ | DS FISH FORM Y☐ N☒

CHANNEL mthd

CHANNEL WIDTH (m)												
WETTED WIDTH (m)												
RES. POOL DEPTH (m)												
W_b Dp (m)					STAGE	L	M	H				

GRADIENT % MTD:

No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT							
	LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% 5

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U V S O
TEXTURE F G C B R A
TEXTURE F G C B R A
RIP. VEG. N G S C D M (N)
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA
STAGE INIT SHR PS YF MF NA

MORPHOLOGY

EMS MTD
TEMP °C
pH

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

DISTURBANCE INDICATORS: 01 beavdam | B1 aban ch | B2 erdbk | B3 avul | D1 SWD | D2 LWD | D3 jam
C1 ex rif | C2 no pl | C3 elev br | C4 mult ch | C5 dis line | S1 horn bd | S2 finger | S3 lg wdg | S4 ex bar | S5 ex bd scr

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

WATER

REQ #
CON D. µS/cm
TURB. T M L C

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

504

HABITAT QUALITY: NFH - ~ 30m wide depression / NCW - seeps through ground to parent stream, ~ 30m long section b/w parent str & N has hardly any signs of surface flow

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1341	ST	U	No scarie

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Drainage mismapped

C:

NCD / NCW

505

SITE CARD

STREAM NAME (gaz.) (local) A 84452-2
WATERSHED CODE
ILP MAP # ILP # 52203/133 NID MAP # NID #
REACH # 1 SITE # 206 FIELD UTM 10 344545 5981660 6P3 SITE LG 140 | 0 ACCESS V4
DATE 2 0 0 8 | 1 0 | 1 4 TIME 1 1 | 2 0 AGENCY CO15 CREW MJ | DS FISH FORM Y☐ N☒

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.5	1.7	1.1	1.1	1.4	1.4					
WETTED WIDTH (m)	T	0.8	1.3	1.1	1.0	1.1	1.4					
RES. POOL DEPTH (m)	M	S	0.10	0.20	0.14							
W_b Dp (m)	0.3	0.3	0.39	0.42	0.42	STAGE	L	M	H			

GRADIENT % MTD: 4L | 5 | 4 | 5.5 | 6

No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

COVER Total 4

	Type	SWD	LWD	B	U	DP	OV	IV
	AMT	T	N	S	D	S	T	N
	LOC	P	P	P	P	P	P	

CROWN CLOSURE: 0 | 1-20% | 21-40% (2) | 41-70% 3 | 71-90% 4 | >90% 5

LWD FNC (N) F A DIST C E
INSTREAM VEG N A (M) V
LB SHP (U) V S O
RB SHP (U) V S O
TEXTURE F G (C) B R A
TEXTURE F G (C) B R A
RIP. VEG. N G S (C) D M W
RIP. VEG. N G S (C) D M
STAGE INIT SHR PS YF (MF) NA
STAGE INIT SHR PS YF (MF) NA

MORPHOLOGY

EMS MTD
TEMP 7 °C (T3)
pH

FLD SNS N
BED MATERIAL Dominant C Subdom. B
D95 (cm) 45 D (cm) 4 Morph. CP

DISTURBANCE INDICATORS: 01 beavdam | B1 aban ch | B2 erdbk | B3 avul | D1 SWD | D2 LWD | D3 jam
C1 ex rif | C2 no pl | C3 elev br | C4 mult ch | C5 dis line | S1 horn bd | S2 finger | S3 lg wdg | S4 ex bar | S5 ex bd scr

PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING (DC) PC CO
CONFINEMENT EN CO FC (OC) UN N/A

WATER

REQ #
CON D. 40 µS/cm (S4)
TURB. T M L (C)

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

506

HABITAT QUALITY: NFH - Creek with potential R mob, however flows into documented NFB parent stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1345	ST	U	Book
D16	1346	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Measurements taken to determine Q100

C:

S6

507

SITE CARD

STREAM NAME (gaz.) (local) A 84452-1
WATERSHED CODE
ILP MAP # ILP # 52102 NID MAP # NID #
REACH # 1 SITE # 207 FIELD UTM 10 343680 5980581 6P3 SITE LG 150 0 ACCESS FT
DATE 20 08 10 04 TIME 12 15 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS beavdam aban ch erdbk avul SWD LWD jam: 01 B1 B2 B3 D1 D2 D3; ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER: Type SWD LWD B U DP OV IV; AMT; LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%: 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

508

HABITAT QUALITY: NFH – swampy valley with standing water in elongated & isolated puddles, no scoured channel bed & fluvium – not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1347	ST	X	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C — NCD

509

SITE CARD

STREAM NAME (gaz.) (local) A 84452-2
WATERSHED CODE 1 8 0 3 7 4 9 0 0 0 9 5 2 1 0 0 3 9 9 1 0 0 6 9 1 0 0
ILP MAP # ILP # 52101 / 93156 NID MAP # NID #
REACH # 2 SITE # 208 FIELD UTM 10 343175 5980662 6P3 SITE LG 200 0 ACCESS V4
DATE 20 08 10 04 TIME 12 50 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS beavdam aban ch erdbk avul SWD LWD jam: 01 B1 B2 B3 D1 D2 D3; ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER: Type SWD LWD B U DP OV IV; AMT; LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%: 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

510

HABITAT QUALITY: NFH – occasionally flooded by stream u/s, but no scoured channel bed or fluvial deposits. Nothing on N side of the road

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1349	ST	BD	Book
D16	1350	ST	U	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C — Stream completely misclassified by ECOFOR in 2005 — NCD

511

SITE CARD

STREAM NAME (gaz.) (local) A 84452-2
WATERSHED CODE 1 8 0 3 7 4 0 0 0 9 5 2 1 0 0 3 9 9 1 0 0 6 9 1 0 0
ILP MAP # ILP # 52101 / 93156 NID MAP # NID #
REACH # 3 SITE # 209 FIELD UTM 10 343252 5980623 6P3 SITE LG 225 0 ACCESS V4
DATE 20 08 10 04 TIME 13 20 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd: T
CHANNEL WIDTH (m): 3.6 3.1 3.6 3.3 3.2 3.2
WETTED WIDTH (m): 2.3 1.8 1.5 1.8 1.5 1.5
RES. POOL DEPTH (m): 0.12 0.15
W_b Dp (m): 0.62 0.62 0.53 0.55 STAGE L M H
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %: AL 3 2.5 2

EMS 7 REQ #
TEMP 7 °C CON D. 5 µS/cm SY
pH TURB. T M L C
FLD SNS: N C
BED MATERIAL Dominant: C Subdom.: G
D95 (cm) 40 D (cm) 17 Morph.: RP
DISTURBANCE INDICATORS beavdam aban ch erdbk avul SWD LWD jam: 01 B1 B2 B3 D1 D2 D3; ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER: Type SWD LWD B U DP OV IV: T T D T T S S; AMT: P P P P P P P; LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%: 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
PSD | 120 0 | R___ F___ | Completely flattens out | 10 343252 5980623 6P3
R___ F___

512

HABITAT QUALITY: NFH – stream isolated from any waterbody – extensively sampled in the past and was confirmed to be barren of fish.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1351	ST	U	Book
D16	1352	ST	D	Book
D16	1353	ST	D	Book – beginning of dispersion
D16	1354	ST	D	Book – end of Creek

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C — Stream completely disappears ~100m u/s from rd & becomes NCD
pg 241 — NCD/SS

513

SITE CARD

STREAM NAME (gaz.) (local) A 84451-2
WATERSHED CODE
ILP MAP # ILP # 51203 NID MAP # NID #
REACH # 1 SITE # 210 FIELD UTM 10 341754 5979742 6P3 SITE LG 100 0 ACCESS FT
DATE 20 08 10 04 TIME 13 30 AGENCY CO16 CREW MJ, DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐
GRADIENT %

EMS REQ #
TEMP °C CON D. µS/cm
pH TURB. T M L C
FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS beavdam aban ch erdbk avul SWD LWD jam: 01 B1 B2 B3 D1 D2 D3; ex rif no pl elev br mult ch dis line horn bd finger lg wdg ex bar ex bd scr: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

COVER: Type SWD LWD B U DP OV IV; AMT; LOC
CROWN CLOSURE 0 1-20% 21-40% 41-70% 71-90% >90%: 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___

514

HABITAT QUALITY: NFH – swampy depression – not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1355	ST	X	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C — Misnapped ? — NCD

515

SITE CARD

STREAM NAME (gaz.) (local) A84451-2
WATERSHED CODE
ILP MAP # ILP # 51201 NID MAP # NID #
REACH # 2 SITE # 211 FIELD UTM 10 341277 5979647 683 SITE LG 330 10 ACCESS V4
DATE 2008 8 0 4 TIME 1415 AGENCY C016 CREW MJ DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m) T 1.4 1.7 1.2 1.2 1.3 1.3
WETTED WIDTH (m) T 1.2 0.7 1.0 1.2 1.2 1.0
RES. POOL DEPTH (m) MS 0.4 0.28 0.19 0.33 0.24 0.38
W_b Dp (m) 0.31 0.39 0.34 0.36 STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % AL 5 4

EMS TEMP 8 °C T3 REQ # CON D. 60 µS/cm 54 pH TURB. T M L C 52

FLD SNS
BED MATERIAL Dominant G Subdom. B
D95 (cm) 60 D (cm) 5 Morph. SP

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	T	T	S	S	D	T	N
LOC	P	P	C	C	I	C	

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-80% | >90% — 1

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | S1 S2 S3 S4 S5
C1 C2 C3 C4 C5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

516

HABITAT QUALITY: NFH - nice brook with excellent R potential
S - F - some small pockets of gravel present, good holding
O - F - some pools might be suitable
stream flows to documented NFB parent stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1356	ST	U	Book
D16	1357	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C

S6

517

SITE CARD

STREAM NAME (gaz.) (local) A84451-2
WATERSHED CODE
ILP MAP # ILP # 51202 NID MAP # NID #
REACH # 1 SITE # 212 FIELD UTM 10 341476 5979369 683 SITE LG 200 10 ACCESS FT
DATE 2008 8 0 4 TIME 1530 AGENCY C016 CREW MJ DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

EMS TEMP °C REQ # CON D. µS/cm pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-80% | >90% — 0

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | S1 S2 S3 S4 S5
C1 C2 C3 C4 C5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

518

HABITAT QUALITY: NFH -

FSZ ☐

PHOTO DOCUMENTATION: No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
Mapped drainage does not exist
ND

519

SITE CARD

STREAM NAME (gaz.) (local) BLK A84450-3
WATERSHED CODE
ILP MAP # ILP # 50304 NID MAP # NID #
REACH # 2 SITE # 213 FIELD UTM 10 341552 5982902 683 SITE LG 700 10 ACCESS FT
DATE 2008 10 0 5 TIME 0920 AGENCY C016 CREW MJ DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %

EMS TEMP °C REQ # CON D. µS/cm pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER Total

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT							
LOC							

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-80% | >90% — 0

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | S1 S2 S3 S4 S5
C1 C2 C3 C4 C5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

520

HABITAT QUALITY: NFH - swampy depression which collects water flow surrounding area - not a stream

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1362	ST	X	No scale

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
One outlet pt 242 @ BRG ~ 040°
Mis-mapped?
ND

521

SITE CARD

STREAM NAME (gaz.) (local) A84450-3
WATERSHED CODE
ILP MAP # ILP # 50303 / 93501 NID MAP # NID #
REACH # 2 SITE # 214 FIELD UTM 10 341622 5983184 683 SITE LG 310 10 ACCESS FT
DATE 2008 10 0 5 TIME 1000 AGENCY C016 CREW MJ DS FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m) T 2.0 1.8 1.9 1.8 2.1 2.0
WETTED WIDTH (m) T 1.1 1.2 1.5 0.7 0.9 0.7
RES. POOL DEPTH (m) GE 0
W_b Dp (m) 0.23 0.27 0.26 0.19 STAGE L M H No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % AL 17 18 12 16

EMS TEMP 6 °C T3 REQ # CON D. 40 µS/cm 57 pH 6.5 TURB. T M L C 65

FLD SNS N
BED MATERIAL Dominant C Subdom. G
D95 (cm) 30 D (cm) 20 Morph. CP

COVER Total T

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	N	T	S	T	N	D	N
LOC	P	P	C		P		

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-80% | >90% — 1

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 | S1 S2 S3 S4 S5
C1 C2 C3 C4 C5

PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

522

HABITAT QUALITY: NFH - small & fast creek with v. poor ISC, seasonal, some braiding, highly moveable substrate
No S, R or D.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1363	ST	U	Book
D16	1364	ST	D	Book

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C | C
Becomes NCD @ UTM 10, 341692, 5982927,

56

523

SITE CARD

STREAM NAME (gaz.) (local) A 84450-3
WATERSHED CODE
ILP MAP # ILP # 50304
REACH # 1 SITE # 215 FIELD UTM 10 341422 5983201 6P3 SITE LG 100 0 ACCESS FT
DATE 20 08 10 05 TIME 10 50 AGENCY CO16 CREW MJ DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_D Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % MTD

WATER: EMS; TEMP °C; pH; REQ #; CON D. µS/cm; TURB. T M L C; FLD SNS

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 — ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (×4)

524

HABITAT QUALITY: NFH - small stable / shallow gully on the slope vegetated by thimbleberries / DC / alder with very sparse signs of surface flows on rare occasions - barely a seepage

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1366	SF	BD	Brook

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Drainage located ~ 80 m to W from mapped location
NCD

525

SITE CARD

STREAM NAME (gaz.) (local) A 84450-3
WATERSHED CODE
ILP MAP # ILP # 50302
REACH # 1 SITE # 216 FIELD UTM 10 341347 5983212 6P3 SITE LG 100 0 ACCESS FT
DATE 20 08 10 05 TIME 11 10 AGENCY CO16 CREW MJ DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_D Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % MTD

WATER: EMS; TEMP °C; pH; REQ #; CON D. µS/cm; TURB. T M L C; FLD SNS

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 — ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (×4)

526

HABITAT QUALITY: NFH - Small gully with sparse signs of occasional surface flow / mist & stream - barely a seepage

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1367	SF	BD	Brook

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C:
NCD

527

SITE CARD

STREAM NAME (gaz.) (local) A 84450-3
WATERSHED CODE
ILP MAP # ILP # 50305
REACH # 1,2,3,4 SITE # 217 FIELD UTM 10 341132 5983138 6P3 SITE LG 950 0 ACCESS FT
DATE 20 08 10 05 TIME 1 1 30 AGENCY CO16 CREW MJ DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m): T 0.7 | 0.5 | 0.9 | 0.7 | 0.9 | 1.3
WETTED WIDTH (m): T 0.6 | 0.2 | 0.8 | 0.6 | 0.8 | 1.1
RES. POOL DEPTH (m): M 5 | 0.08 | 0.11 | 0.07 | 0.12
W_D Dp (m): 0.16 | 0.25 | 0.16 | 0.14 STAGE L M H
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % MTD: AV 7 6 5.5 8.5

WATER: EMS; TEMP 6 °C T3; pH; REQ #; CON D. 30 µS/cm S4; TURB. T M to C F8; FLD SNS

COVER: Total F7
Type SWD LWD B U DP OV IV
AMT S T T T S D N
LOC P P P P Y P
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 (3) 4 5
LWD FNC N (F) A DIST C (E)
LB SHP U (V) S O
TEXTURE (F) (G) C B R A
RIP. VEG. N G S C D (M) W
STAGE INIT SHR PS YF (MF) NA
INSTREAM VEG (N) A M V
RB SHP U (V) S O
TEXTURE (F) (G) C B R A
RIP. VEG. N G S C D (M)
STAGE INIT SHR PS YF (MF) NA

MORPHOLOGY
BED MATERIAL Dominant G Subdom. C
D95 (cm) 22 D (cm) 7 Morph. CP
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 — ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM (IR) SI ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC (PC) CO
CONFINEMENT EN CO FC (OC) UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (×4)

528

HABITAT QUALITY: NFH - seasonal & extremely shallow stream with tiny pools. Disperses ~ 40 m d/s from site UTM. Not accessible to fish and has no habs to offer. Descends to Fredonia L. over 20% gradient (from contours)

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
DIG	1368	ST	U	Brook - dispersion
↓	1369	↓	U	Brook
↓	1370	↓	D	Brook
DIG	1371	ST	BD	Brook
DIG	1372	ST	BD	Brook - drainage w/s of U

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Becomes NCD 20 m d/s from X-ing
Seepage in the 20 m U&D/S from X-ing then established stream & surface flow, as well as flumium
Mismapped upper part - drainage from shelf part W (100 x 100 m)

C: Then drains to W as mapped and as NCD
S6 / NCD

529

SITE CARD

STREAM NAME (gaz.) (local) A 84450-3
WATERSHED CODE
ILP MAP # ILP # 50306
REACH # 1 SITE # 218 FIELD UTM 10 340834 5982548 6P3 SITE LG 100 0 ACCESS FT
DATE 20 08 10 05 TIME 1 3 15 AGENCY CO16 CREW MJ DJ FISH FORM Y ☐ N ☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_D Dp (m) STAGE L M H
No Vis. Ch. ☒ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT % MTD

WATER: EMS; TEMP °C; pH; REQ #; CON D. µS/cm; TURB. T M L C; FLD SNS

COVER: Total
Type SWD LWD B U DP OV IV
AMT
LOC
CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90% — 0 1 2 3 4 5
LWD FNC N F A DIST C E
LB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA
INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA

MORPHOLOGY
BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 — ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr — C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES: C | NID MAP # | NID # | TYPE | HT / LG (m) | mthd | PHOTO | COMMENTS | UTM
R___ F___ (×4)

530

HABITAT QUALITY: NFH

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: Drainage does not exist
ND

531

SITE CARD

STREAM NAME (gaz.) Smit C 4rm AA-R1 (local) off Barren Rd
WATERSHED CODE 4|6|0|6|7|2|8|0|0
ILP MAP # ILP # NID MAP # NID #
REACH # 18 SITE # 219 FIELD UTM 9|651693|6041270|GPS SITE LG 360|0 ACCESS F5
DATE 20|08|10|10 TIME 1230 AGENCY CO16 CREW MJ, DJ FISH FORM Y X N

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.2	1.1	0.9	0.9	1.2	1.0					
WETTED WIDTH (m)	T	0.7	0.8	0.6	0.7	1.0	1.0					
RES. POOL DEPTH (m)	T	0.11	0.1	0.08	0.18	0.22	0.08					
W_b Dp (m)	2.32	0.26	0.25	0.34	STAGE	L M H						

GRADIENT % AL 5.5 6 7.5 7

EMS REQ #
TEMP 4 °C T3 CON D. 60 µS/cm SY
pH TURB. T M L C KF
FLD SNS N
BED MATERIAL Dominant G Subdom. B
D95 (cm) 70 D (cm) 3 Morph. SP

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	N	T	S	D	T	N	
LOC		P	P	P	P		

CROWN CLOSURE: 0 | 1-20% 1 | 21-40% 2 | 41-70% 3 | 71-90% 4 | >90% 5

LWD FNC N P A DIST C F
LB SHP U V S O
TEXTURE F G C R A
RIP. VEG. N G S D M W
STAGE INIT SHR PS YF MP NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C R A
RIP. VEG. N G S D M
STAGE INIT SHR PS YF MP NA

MORPHOLOGY

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 | C2 | C3 | C4 | C5 | S1 | S2 | S3 | S4 | S5

PATTERN TM ME IM IR ST
ISLANDS N 0 I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

532

HABITAT QUALITY

NF 4 – tiny creek with only seasonal rearing availability wherever habitat to per drawn FB waters to be accessed by CT. Lake shallows does not provide O hab.
No 3 observed, some gravels near the lake past u belt contain ~ 60% fines to provide successful spawning

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1395	ST	U	Brook
D16	1396	ST	D	Brook

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS
INV	Abundance of Freshwater Shrimp		

COMMENTS

C EF 500/80/6 length 400 m 218 sec
xing UTM 9.652081.6041201
Abundance FWS in Lake as and in 60 m long section w/w wetland belt indicates fish presence

533

FISH COLLECTION FORM

GAZETTED NAME Smit C (str AA-R1) (local) LAKE STREAM WETLAND
WATERSHED CODE 4|6|0|6|7|2|8|0|0
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED Y N
PROJECT ID REACH # 18 D FISH PERMIT # SM08-45742
DATE 20|08|10|10 to YY MM DD AGENCY CO16 CREW MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
219			9|651693|6041270|GPS	EF 1	4	60	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
219	EF 1	1	NFC			0				

534

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
219	EF 1	1	1230	1315	218	400	0.9	0	500	80	6	SR	1215

COMMENTS

535

SITE CARD

STREAM NAME (gaz.) Robert Hatch C (local) Robert Hatch stmp
WATERSHED CODE 4|6|0|7|8|2|9|0|0|5|1|0|0
ILP MAP # ILP # NID MAP # NID #
REACH # 10 SITE # 220 FIELD UTM 9|669680|6052915|GPS SITE LG 650|0 ACCESS V4
DATE 20|08|10|10 TIME 1415 AGENCY CO16 CREW MJ, DJ FISH FORM Y X N

CHANNEL mthd

CHANNEL WIDTH (m)	T	1.2	1.2	1.2	1.6	1.4	1.3					
WETTED WIDTH (m)	T	1.2	1.1	1.1	1.6	1.4	1.3					
RES. POOL DEPTH (m)	T	0.27	0.29	0.58	0.33	0.28						
W_b Dp (m)	0.35	0.32	0.34	0.31	STAGE	L M H						

GRADIENT % AL 3.2 2.2

EMS REQ #
TEMP 4 °C T3 CON D. 40 µS/cm SY
pH TURB. T M L C KF
FLD SNS N
BED MATERIAL Dominant C Subdom. G
D95 (cm) 40 D (cm) 4 Morph. SP B

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
Type							
AMT	T	T	S	S	D	T	T
LOC	P	P	P	P	P	P	P

CROWN CLOSURE: 0 | 1-20% 1 | 21-40% 2 | 41-70% 3 | 71-90% 4 | >90% 5

LWD FNC N F A DIST C F
LB SHP U V S O
TEXTURE F G C R A
RIP. VEG. N G S D M W
STAGE INIT SHR PS YF MP NA

INSTREAM VEG N A M V
RB SHP U V S O
TEXTURE F G C R A
RIP. VEG. N G S D M
STAGE INIT SHR PS YF MP NA

MORPHOLOGY

DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3
ex rif | no pl | elev br | mult ch | dis line | horn bd | finger | lg wdg | ex bar | ex bd scr
C1 | C2 | C3 | C4 | C5 | S1 | S2 | S3 | S4 | S5

PATTERN TM ME IM IR ST
ISLANDS N 0 I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

536

HABITAT QUALITY

R – Good potential in abundant cover
S – some large substrate
O – F – one good pool observed

RB captured d/s @ North Rd plunge pool

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
D16	1397	ST	U	Brook
D16	1398	ST	D	Brook
D16	1399	ST	U	u/s of CV –
D16	1400	ST	D	d/s of CV –

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C Creek missed up by ~ we FPC lagging practices + dive sword build of 1335 xing through stream + driving Bombardier two channels had been created. All measurements taken by downstream over

C EF 581 sec NFC 700/80/6 ~ 400 m
(54)
537
(R) North Rd xing 6 sec 700/80/6 RB 107, 126 Size 221 (p. 264)

FISH COLLECTION FORM

GAZETTED NAME Robert Hatch C (local) LAKE STREAM WETLAND
WATERSHED CODE 4|6|0|7|8|2|9|0|0|5|1|0|0
WATERBODY ID ILP MAP # ILP # SITE/LAKE CARD ATTACHED Y N
PROJECT ID REACH # 10 D FISH PERMIT # SM08-45742
DATE 20|08|10|10 to YY MM DD AGENCY CO16 CREW MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	CON	TURB.	COMMENTS
220			9|669680|6052915|GPS	EF 1	4	40	C	
221AS			9|668505|6053441|GPS	EF 1	4	40	C	

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
220	EF 1	1	NFC			0				
221AS	EF 1	1	RB			2	107	126	R	N. Rd xing sampled

538

NET / TRAP SPECIFICATIONS

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL
220	EF 1	1	1445	1525	561	650	1.3	0	700	80	6	SR	1215
221AS	EF 1	1	1602	1637	6	4	2	0	700	80	6	SR	1215

COMMENTS

sampled tributary (R) N Rd xing, RB consistently 107, 126 CV is a barrier (u/s) in drop

539

SITE CARD

STREAM NAME (gaz.) (local) RD 424 HWB 58 Snyside
WATERSHED CODE
ILP MAP # ILP # 42401 NID MAP # NID #
REACH # 1 SITE # 222 FIELD UTM 9 651204 6111897 6P3 SITE LG 200.0 ACCESS FT
DATE 20/08/10/19 TIME 11:50 AGENCY COI6 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☐ Dry/Int. ☐
DW ☐ Tribs. ☐

GRADIENT % MTD

EMS **REQ #**
TEMP °C **CON D.** µS/cm
pH **TURB.** T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) **D** (cm) **Morph.**

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

	beav.dam	aban ch	embk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	

ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC	N F A	DIST C E	INSTREAM VEG	N A M V	PATTERN	TM ME IM IR SI ST
LB SHP	U V S O		RB SHP	U V S O	ISLANDS	N O I F S AN
TEXTURE	F G C B R A		TEXTURE	F G C B R A	BARS	N SIDE DIAG MID SPAN BR
RIP. VEG.	N G S C D M W		RIP. VEG.	N G S C D M	COUPLING	DC PC CO
STAGE	INIT SHR PS YF MF NA		STAGE	INIT SHR PS YF MF NA	CONFINEMENT	EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

540

HABITAT QUALITY: NFH - drainage discontinuously scoured on the w/s side of road - no fluvium w/in 4-7% gradient, scour only in steepest sections, isolated puddles on d/s side of road

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos - camera busted

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: C: Joins some unmapped drainage @ site UTM — NCD

541

SITE CARD

STREAM NAME (gaz.) (local) RD 424 HWB 57 Snyside
WATERSHED CODE
ILP MAP # ILP # 42402 NID MAP # NID #
REACH # 1 SITE # 223 FIELD UTM 9 651193 6111945 6P3 SITE LG 200.0 ACCESS FT
DATE 20/08/10/19 TIME 12:15 AGENCY COI6 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ Dry/Int. ☐
DW ☐ Tribs. ☐

GRADIENT % MTD

EMS **REQ #**
TEMP °C **CON D.** µS/cm
pH **TURB.** T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) **D** (cm) **Morph.**

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

	beav.dam	aban ch	embk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	

ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC	N F A	DIST C E	INSTREAM VEG	N A M V	PATTERN	TM ME IM IR SI ST
LB SHP	U V S O		RB SHP	U V S O	ISLANDS	N O I F S AN
TEXTURE	F G C B R A		TEXTURE	F G C B R A	BARS	N SIDE DIAG MID SPAN BR
RIP. VEG.	N G S C D M W		RIP. VEG.	N G S C D M	COUPLING	DC PC CO
STAGE	INIT SHR PS YF MF NA		STAGE	INIT SHR PS YF MF NA	CONFINEMENT	EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

542

HABITAT QUALITY: NFH - drainage with occasional scoured channel bed and fluvium through shallow gully - not a stream completely dissipates 30 m d/s of xing

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos - camera busted

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

543

SITE CARD

STREAM NAME (gaz.) (local) RD 424 HWB 56 Snyside
WATERSHED CODE
ILP MAP # ILP # 42403 NID MAP # NID #
REACH # 1 SITE # 224 FIELD UTM 9 651196 6112007 6P3 SITE LG 200.0 ACCESS FT
DATE 20/08/10/19 TIME 12:45 AGENCY COI6 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m) T 0.9 1.1 0.9 0.8 F 0.6 0.8 AL
WETTED WIDTH (m) T 0.7 0.3 0.4 0.4 F 0.2 0.8 8 11
RES. POOL DEPTH (m) 0 0
W_b Dp (m) 0.2 0.24 STAGE L M H
No Vis. Ch. ☒ Dry/Int. ☐
DW ☐ Tribs. ☐

GRADIENT % MTD

EMS **REQ #**
TEMP 2 °C **CON D.** µS/cm
pH **TURB.** T M L C

FLD SNS
BED MATERIAL Dominant C Subdom. TB
D95 (cm) 35 **D** (cm) 4 **Morph.** CP

COVER Total 9

Type	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	D	N	N	S	N
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

	beav.dam	aban ch	embk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	

ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC	N F A	DIST C E	INSTREAM VEG	N A M V	PATTERN	TM ME IM IR SI ST
LB SHP	U V S O		RB SHP	U V S O	ISLANDS	N O I F S AN
TEXTURE	F G C B R A		TEXTURE	F G C B R A	BARS	N SIDE DIAG MID SPAN BR
RIP. VEG.	N G S C D M W		RIP. VEG.	N G S C D M	COUPLING	DC PC CO
STAGE	INIT SHR PS YF MF NA		STAGE	INIT SHR PS YF MF NA	CONFINEMENT	EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

544

HABITAT QUALITY: NFH - drainage flattens out w/in 60 m d/s of xing - N 30 m wide wet area with standing water in puddles combinations scoured channel bed & fluvium for 30m u/s of xing - not a stream seepage beyond

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos camera busted

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: NCD

545

SITE CARD

STREAM NAME (gaz.) (local) RD 424 HWB 47 Snyside
WATERSHED CODE
ILP MAP # ILP # 42404 NID MAP # NID #
REACH # 4 SITE # 225 FIELD UTM 9 651660 6112127 6P3 SITE LG 105.0 ACCESS FT
DATE 20/08/10/19 TIME 13:15 AGENCY COI6 CREW MJ DJ FISH FORM Y☐ N☒

CHANNEL mthd
CHANNEL WIDTH (m)
WETTED WIDTH (m)
RES. POOL DEPTH (m)
W_b Dp (m) STAGE L M H
No Vis. Ch. ☒ Dry/Int. ☐
DW ☐ Tribs. ☐

GRADIENT % MTD

EMS **REQ #**
TEMP °C **CON D.** µS/cm
pH **TURB.** T M L C

FLD SNS
BED MATERIAL Dominant Subdom.
D95 (cm) **D** (cm) **Morph.**

COVER Total

Type	SWD	LWD	B	U	DP	OV	IV
AMT							
LOC							

CROWN CLOSURE

0	1-20%	21-40%	41-70%	71-90%	>90%
0	1	2	3	4	5

DISTURBANCE INDICATORS

	beav.dam	aban ch	embk	avul	SWD	LWD	jam
01	B1	B2	B3	D1	D2	D3	

ex rif	no pl	elev br	mult ch	dis line	horn bd	finger	lg wdg	ex bar	ex bd scr
C1	C2	C3	C4	C5	S1	S2	S3	S4	S5

LWD FNC	N F A	DIST C E	INSTREAM VEG	N A M V	PATTERN	TM ME IM IR SI ST
LB SHP	U V S O		RB SHP	U V S O	ISLANDS	N O I F S AN
TEXTURE	F G C B R A		TEXTURE	F G C B R A	BARS	N SIDE DIAG MID SPAN BR
RIP. VEG.	N G S C D M W		RIP. VEG.	N G S C D M	COUPLING	DC PC CO
STAGE	INIT SHR PS YF MF NA		STAGE	INIT SHR PS YF MF NA	CONFINEMENT	EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

546

HABITAT QUALITY: NFH - drainage with organic deposits d/s of xing, seepage u/s - scoured a stream @ site UTM. N 1.8 wide mucky tchannel d/s of xing but no offering, not scoured d/t walker movement

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos - camera busted

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS: SG/NCD ~~NSD/SG~~

547

SITE CARD

STREAM NAME (gaz.) (local) RD 424 HWB 46 Swy side
WATERSHED CODE
ILP MAP # ILP # 42404 NID MAP # NID #
REACH # 3 SITE # 226 FIELD UTM 9 16518001611240 GPS SITE LG 180.0 ACCESS FT
DATE 20 08 10 19 TIME 13:30 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd

CHANNEL WIDTH (m)	T	0.8	0.9	0.7	0.7				
WETTED WIDTH (m)	T	0.8	0.9	0.5	0.4				
RES. POOL DEPTH (m)	T	0.08							
W_b Dp (m)	0.17	0.22	0.24	0.22	STAGE	L	M	H	

GRADIENT %: AL 11.5 22 6

EMS TEMP 2 °C T3 REQ # CON D. µS/cm pH TURB. T M L C

FLD SNS
BED MATERIAL Dominant G Subdom. C
D95 (cm) 22 D (cm) 7 Morph. CP
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total T

	SWD	LWD	B	U	DP	OV	IV
AMT	N	T	N	S	T	D	N
LOC	P		C	F	A	N	

CROWN CLOSURE: 0 1 2 3 4 5 (1-20% 21-40% 41-70% 71-90% >90%)

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___	WB=0.25,0.21,0.18,0.21	
						R___ F___		
						R___ F___		
						R___ F___		

548

HABITAT QUALITY: NFH - channelized near crossing with continuous scour & thwim for ~ 200m, thorn becomes steep NCD for ~ 200m & channelized again.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: @ pt 298 becomes NCD again channel runs out. Discontinuous scour on 36% slope. Strm @ 299 ?

NCD/S6

549

SITE CARD

STREAM NAME (gaz.) (local) RD 424 HWB 37 Swy side
WATERSHED CODE
ILP MAP # ILP # 42404 NID MAP # NID #
REACH # 1 SITE # 227 FIELD UTM 9 16520791611234 GPS SITE LG 260.0 ACCESS FT
DATE 20 08 10 19 TIME 14:30 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd

CHANNEL WIDTH (m)	T	0.5	0.9	0.6	0.6	0.5	0.6		
WETTED WIDTH (m)	T	0.5	0.7	0.5	0.4	0.4	0.5		
RES. POOL DEPTH (m)	T	0.08							
W_b Dp (m)	0.24	0.24	0.18	0.23	STAGE	L	M	H	

GRADIENT %: AL 2 5 3 2.5

EMS TEMP 2 °C T3 REQ # CON D. µS/cm pH TURB. T M L C GE

FLD SNS N
BED MATERIAL Dominant F Subdom. G
D95 (cm) 3 D (cm) 3 Morph. RP
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total M

	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	N	D	T	S	N
LOC	P	C		C	T		

CROWN CLOSURE: 0 1 2 3 4 5 (1-20% 21-40% 41-70% 71-90% >90%)

LWD FNC N D A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S D M W
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
			C	6 25	0	R___ F___	Impassable to all fish	9 16520791611234 GPS
						R___ F___		
						R___ F___		
						R___ F___		

550

HABITAT QUALITY: NFH - tiny & inaccessible C from parent stream subtle sections.

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS
				No photos - camera busted

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: pt 308 ~ goes sub
309 ~ reappears/hiseep up to 310
313 ~ cascade for 25m & 2.5m drop @ mouth

S6/NCD

551

SITE CARD

STREAM NAME (gaz.) (local) RD 424 HWB 39 & 42
WATERSHED CODE
ILP MAP # ILP # 42405 NID MAP # NID #
REACH # 2 SITE # 228 FIELD UTM 9 16520821611216 GPS SITE LG 450.0 ACCESS FT
DATE 20 08 10 19 TIME 15:25 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☐ N ☒

CHANNEL mthd

CHANNEL WIDTH (m)	T	0.9	1.1	0.8	1.1	1.0	0.7		
WETTED WIDTH (m)	T	0.6	0.5	0.8	0.9	0.7	0.4		
RES. POOL DEPTH (m)	MS	0.09	0.13						
W_b Dp (m)	0.21	0.27	0.30	0.24	STAGE	L	M	H	

GRADIENT %: AL 5 4 3 3

EMS TEMP 2 °C T3 REQ # CON D. µS/cm pH TURB. T M L C GE

FLD SNS N
BED MATERIAL Dominant F Subdom. G
D95 (cm) 13 D (cm) 4 Morph. RP
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
AMT	T	J	T	S	T	D	N
LOC	P	P	P	P			

CROWN CLOSURE: 0 1 2 3 4 5 (1-20% 21-40% 41-70% 71-90% >90%)

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

552

HABITAT QUALITY: NFH - small & shallow C, no usable fish habitat visited anyway

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: HWB 42 = 5 = 2+280
pt 326 → NCD just u/s of Xing @ HWB 42
@ pt 334 dispersed

NCD/S6/NCD

553

SITE CARD

STREAM NAME (gaz.) Isak C (local) RD 424 HWB 22
WATERSHED CODE 480150191210000
ILP MAP # ~~42406~~ NID MAP # NID #
REACH # 3 SITE # 229 FIELD UTM 9 16517[illegible] 16112670 GPS SITE LG 300.0 ACCESS V4
DATE 20 08 10 19 TIME 16:20 AGENCY CO16 CREW MJ, DJ FISH FORM Y ☒ N ☐

CHANNEL mthd

CHANNEL WIDTH (m)	T	4.7	5.1	3.2	3.2	6.3	5.7		
WETTED WIDTH (m)	T	2.0	2.6	1.9	3.1	4.5	~~4.3~~		
RES. POOL DEPTH (m)	MS	0.21	0.17	0.33	0.26				
W_b Dp (m)					STAGE	L	M	H	

GRADIENT %: 4.5 8.10 3.0 ~~11.5~~ 4/5

EMS TEMP 3 °C T3 REQ # CON D. µS/cm pH TURB. T M L C GE

FLD SNS suspended debris
BED MATERIAL Dominant G Subdom. B
D95 (cm) 30 D (cm) 8 Morph. RP B-W
DISTURBANCE INDICATORS: 01 B1 B2 B3 D1 D2 D3 / C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

No Vis. Ch. ☐ Dry/Int. ☐ DW ☐ Tribs. ☐

COVER Total A

	SWD	LWD	B	U	DP	OV	IV
AMT	T	T	D	N	S	T	S
LOC	P	P		P	P	P	

CROWN CLOSURE: 0 1 2 3 4 5 (1-20% 21-40% 41-70% 71-90% >90%)

LWD FNC N F A DIST C E
INSTREAM VEG N A M V
LB SHP U V S O
RB SHP U N S O
TEXTURE F G C B R A
RIP. VEG. N G S C D M W
STAGE INIT SHR PS YF MF NA

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
		site 233	BD	1.2 1.4	HC	R___ F___	WB=0.65,0.54,0.58,0.55,0.52,0.49	
		site 235	F	0.6		R___ F___	~140m from Basin L	9 16540271611245 GPS
						R___ F___		9 16521391611244 GPS
						R___ F___		

554

HABITAT QUALITY: Excellent R hab in V abundant cover & stable C
O ~ wine ~ BP small likely
S ~ P → F ~ gravel patches scattered & small but utilized (RB pf present)

FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS
C: @ Xing channel opinwricted
@ 2.5m width (LF) & 3.5m (HF)
200 ; Dgm WB
4 MTNG WS
18 RB 57-129 6 RIB/CT ~ 48-51
2 CT 63, 69

S2

555

FISH COLLECTION FORM

GAZETTED NAME: TSAK C (local) Hwk 22 Rel 429 — LAKE / STREAM / WETLAND
WATERSHED CODE: 4 8 3 5 0 1 4 R P P
WATERBODY ID: ILP MAP #: ILP #: SITE/LAKE CARD ATTACHED: Y N
PROJECT ID: REACH #: 3 D FISH PERMIT #: SM02-4574
DATE: 20 08 10 19 to YY MM DD AGENCY: COIC CREW: MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM TEMP	STREAM CON	STREAM TURB	COMMENTS
229			9 651709 6112871 GPS	MT 1	3			C d/s of xing
229				MT 2	3			C d/s of xing
229				MT 3	3			C u/s of xing
229				MT 4	3			C u/s of xing

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX. LENGTH	FISH ACT.	COMMENTS
229	MT 1	1	RB	J		6	66	93	R	
	MT 1	1	CT/RB	F		1	47	47	R	
	MT 2	1	RB	J		2	69	81	R	
	MT 2	1	CT/RB	F		3	48	51	R	
	MT 3	1	RB	J		4	57	118	R	
	MT 4	1	RB	J		3	87	129	R	
	MT 4	1	CT	J		2	63	69	R	
	MT 4	1	CT/RB	F		3	46	49	R	

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GEAR SPECIFICATIONS

NET / TRAP SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.
	229	MT 1	1	10 19	11:00	10 19	1630			0.3			
		MT 2	1	10 19	11:02	10 19	1635			0.3			
		MT 3	1	10 19	11:05	10 19	1640			0.3			
		MT 4	1	10 19	11:07	10 19	1645			0.3			

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL

COMMENTS

MT 1 → RB 66, 84 CT/RB 47, RB 83, 79, 93, 81
MT 2 → RB 69, 81 CT/RB 51, 48, 49
MT 3 → RB 118, 107, 64, 57
MT 4 → RB 129, 113, CT 69, 63 RB/CT 46, 46, 49, RB 87

557

SITE CARD

STREAM NAME (gaz.): (local) BLK K (east)
WATERSHED CODE:
ILP MAP #: ILP # 11306 NID MAP # NID #
REACH # 1 SITE # 230 FIELD UTM 10 315093 6001623 GPS SITE LG 320 0 ACCESS FT
DATE 20 08 10 20 TIME 0910 AGENCY COIC CREW MJ, DJ FISH FORM Y N

CHANNEL: mthd
CHANNEL WIDTH (m): T 0.6 0.8 0.9 1.0 0.8 0.8
WETTED WIDTH (m): T 0.3 0.2 0.4 0.7 0.1 0
RES. POOL DEPTH (m): M 5 0.6
W_b Dp (m): 0.34 0.3 0.2 0.2 0.1 STAGE D M H
No Vis. Ch. ☐ DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %: AL 4 9 8 7

EMS: TEMP 1 °C pH: FLD SNS: N
REQ #: CON D. µS/cm TURB. T M L (C) 66

BED MATERIAL Dominant C Subdom. B
D95 (cm) 320 D (cm) 5 Morph. CC

COVER — Total A

	Type	SWD	LWD	B	U	DP	OV	IV
AMT		T	T	S	D	N	S	N
LOC		A	P	P	P	T		

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% (3) | 71-90% | >90%; 0 1 2 3 4 5

LWD FNC N (D) A DIST C (E) INSTREAM VEG N A (M) V
LB SHP (U) V S O RB SHP (U) V S O
TEXTURE F G (V) (B) R A TEXTURE F G (V) (B) R A
RIP. VEG. N G S (C) D M W RIP. VEG. N G S (C) D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: boavdam, abandch, erosbk, avul, SWD, LWD, jam; 01 B1 B2 B3 D1 D2 D3; ex rif, no pl, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR (SI) ST
ISLANDS (N) O I F S AN
BARS (N) SIDE DIAG MID SPAN BR
COUPLING DC (PC) CO
CONFINEMENT EN CO (FC) OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

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HABITAT QUALITY: NEPI - small & isolated stream with no fish habitat Unmapped
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: C:

56

559

SITE CARD

STREAM NAME (gaz.): (local) BLK K (east) W
WATERSHED CODE:
ILP MAP #: ILP # 11307 NID MAP # NID #
REACH # 1 SITE # 231 FIELD UTM 10 311628 6001450 GPS SITE LG 260 0 ACCESS FT
DATE 20 08 10 20 TIME 1115 AGENCY COIC CREW MJ, DJ FISH FORM Y N

CHANNEL: mthd
CHANNEL WIDTH (m):
WETTED WIDTH (m):
RES. POOL DEPTH (m):
W_b Dp (m): STAGE L M H
No Vis. Ch. X DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %:

EMS: TEMP °C pH: FLD SNS:
REQ #: CON D. µS/cm TURB. T M L C

BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER — Total

	Type	SWD	LWD	B	U	DP	OV	IV
AMT								
LOC								

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%; 0 1 2 3 4 5

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: boavdam, abandch, erosbk, avul, SWD, LWD, jam; 01 B1 B2 B3 D1 D2 D3; ex rif, no pl, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

560

HABITAT QUALITY: NFH-
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Dreinage originates in trapezoidal shape, catchment area/depression (20m, 2m W:10m) & descends through alder/veteh @ ~ 8-11% gradient, scoured channel discontinuous & is lost as flowing

C: Longest scoured reach to pt = 90m, then becomes a seepage; water collected in small depression @ site 1 with little loop to 361 & drains to 386 = 118°

NCD

561

SITE CARD

STREAM NAME (gaz.): (local)
WATERSHED CODE:
ILP MAP #: ILP # 40109 NID MAP # NID #
REACH # 1 SITE # 232 FIELD UTM 9 687653 6024351 GPS SITE LG 350 C ACCESS FT
DATE 20 08 10 20 TIME 1350 AGENCY COIC CREW MJ, DJ FISH FORM Y N

CHANNEL: mthd
CHANNEL WIDTH (m):
WETTED WIDTH (m):
RES. POOL DEPTH (m):
W_b Dp (m): STAGE L M H
No Vis. Ch. X DW ☐ Dry/Int. ☐ Tribs. ☐

GRADIENT %:

EMS: TEMP °C pH: FLD SNS:
REQ #: CON D. µS/cm TURB. T M L C

BED MATERIAL Dominant Subdom.
D95 (cm) D (cm) Morph.

COVER — Total

	Type	SWD	LWD	B	U	DP	OV	IV
AMT								
LOC								

CROWN CLOSURE: 0 | 1-20% | 21-40% | 41-70% | 71-90% | >90%; 0 1 2 3 4 5

LWD FNC N F A DIST C E INSTREAM VEG N A M V
LB SHP U V S O RB SHP U V S O
TEXTURE F G C B R A TEXTURE F G C B R A
RIP. VEG. N G S C D M W RIP. VEG. N G S C D M
STAGE INIT SHR PS YF MF NA STAGE INIT SHR PS YF MF NA

DISTURBANCE INDICATORS: boavdam, abandch, erosbk, avul, SWD, LWD, jam; 01 B1 B2 B3 D1 D2 D3; ex rif, no pl, elev br, mult ch, dis line, horn bd, finger, lg wdg, ex bar, ex bd scr; C1 C2 C3 C4 C5 S1 S2 S3 S4 S5
PATTERN TM ME IM IR SI ST
ISLANDS N O I F S AN
BARS N SIDE DIAG MID SPAN BR
COUPLING DC PC CO
CONFINEMENT EN CO FC OC UN N/A

FEATURES

C	NID MAP #	NID #	TYPE	HT / LG (m)	mthd	PHOTO	COMMENTS	UTM
						R___ F___		
						R___ F___		
						R___ F___		
						R___ F___		

562

HABITAT QUALITY: NFH seepage out of bog - no scour, flowing or channel - just isolated mucky puddles through swale & then thru gully
FSZ ☐

PHOTO DOCUMENTATION

ROLL #	#	FOC LG	DIR	COMMENTS

WILDLIFE

GROUP	WILDLIFE OBSERVATIONS	GROUP	WILDLIFE OBSERVATIONS

COMMENTS

C: Unnamed drainage d/s of TH40 bogs some shreinops for both locations) unbisected u/s in block

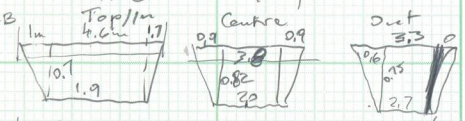
C:

NCD

563

Oct 22

TSAK Xing %₀ = 1.6, 1.6



4 B - small, some cover w/l

Xing width ±15 m

Pooling @ HF, u/s R.B. → sand ~5m away from creek, some scour on RB, abutment @ inlet

R1 → lots of nice uniform gravels → most likely spawning area, not much cover for Chinook through → any juv CO present (~350 m nice G)
BD → 1.2 m/25 m long ph 1461
@ UTM 9.654027.6112450
Good R&O for CO (5.233)

R2 → v. fast scour/deposit, few Banks all over, many dry/abandoned channels, XW freq with v. mediocre pools
Subs mostly LC w/h some G
No S, P, O, R maybe @ V. LF not for CO, CO only d/s of old Xing
ph = 1463, hab v. poor (5.234)

R3 → very nice, Cover B/P, some LWD, Deep pools, mod freq, small G patches
Pretty stable despite some 8% sections,
Debris jams present, XW for, few Bank
some, ph 1463, 0.6 F, ph 1464 (564)
V. good hab for DV, RB, CT UTM 9.652139.6112442

FISH COLLECTION FORM

GAZETTED NAME: TSAK C (local): Hwy 22 424 RD LAKE STREAM WETLAND

WATERSHED CODE: 4 8 0 5 0 4 1 2 0 0

WATERBODY ID: ILP MAP #: ILP #: SITE/LAKE CARD ATTACHED: Y (N)

PROJECT ID: REACH #: 1, 2, 3 D FISH PERMIT #: SM58-45742

DATE: 20 08 / 10 / 22 to YY MM DD AGENCY: CO16 CREW: MJ, DJ RE-SAMPLE

SITE / METHOD

SITE #	NID MAP #	NID #	SITE UTM	MTD / NO.	STREAM CONDITION TEMP	STREAM CONDITION CON.	STREAM CONDITION TURB.	COMMENTS
233AS			9 | 653827 | 6112433 | GPS	DM 1	2		C	700m w/ 3 of pools
234AS			9 | 653683 | 6112346 | GPS	DM	2		C	500 m
235AS			9 | 652827 | 6112133 | GPS	DM	2		C	1200 m

FISH SUMMARY

SITE #	MTD / #	H / P	SPECIES	STAGE	AGE	TOTAL #	MIN. LENGTH	MAX LENGTH	FISH ACT.	COMMENTS
233AS	DM 1 1	1	CO	J		3	56	63	R	
234AS	DM 1 1	1	CO	J		5	57	62	R	
235AS	DM 1 1	1	NFC			0				

(565)

GEAR SPECIFICATIONS

C	SITE #	MTD / #	HAUL	DATE IN	TIME IN	DATE OUT	TIME OUT	NET TYPE	LENGTH	DEPTH	MESH SIZE	SET	HAB.
	233AS	DM 1	1	10 22	12.00	10 22	12 20						
	234AS	DM 1	1	10 22	1515	10 22	1630						
	235AS	DM 1	1	10 22	1630	10 22	1715						

ELECTROFISHER SPECIFICATIONS

SITE #	MTD / #	PASS	TIME IN	TIME OUT	EF SEC.	LENGTH	WIDTH	ENCL.	VOLTAGE	FREQ.	PULSE	MAKE	MODEL

COMMENTS

R1 → CO 63, 63, 56 CW UB = 0.45, 0.55, 0.40

R2 → CO 57, 61, 59, 58, 62 CW, 6, 7, 8 6.3 6.6 %₀ = 4, 4, 5, 7, 5

R3 → CW 7, 5.5, 6.5, 5.5, 6 %₀ → 8, 5.5, 6.5, 6, 4, 4, WB = 0.45, 0.6

(566)

Appendix II: Photographs

Site 1AS: CMP at McDonnel FSR crossing

Site 1AS: DV photo

Site 3: view upstream

Site 2AS: beaver dam

Site 3: view upstream

Site 4X: RB photo

Site 4X: Salmonid fry photo


Site 4X: view upstream


Site 4X: view downstream


Site 5: RB photo


Site 9: dewatering


Site 901: view across


Site 10: view upstream


Site 10: view downstream


Site 11: CT photo


Site 11: view upstream


Site 011: view downstream


Site 012: view upstream


Site 012: view downstream


Site 012: streambed view


Site 013: view upstream


Site 013: view downstream


Site 014: view upstream


Site 014: view downstream


Site 014: dispersion


Site 015: view upstream - no scour


Site 015: view upstream - scour


Site 016: view upstream


Site 016: view downstream


Site 016: view upstream - R2


Site 017: view upstream


Site 017: view downstream


Site 018: view upstream


Site 018: view downstream


Site 019: view upstream


Site 019: view downstream


Site 020: view upstream


Site 020: view upstream


Site 021: view upstream


Site 021: view downstream


Site 022: view upstream


Site 022: view downstream


Site 023: view upstream


Site 025: view upstream


Site 026: view downstream


Site 026: view upstream


Site 027: view upstream


Site 028: view downstream


Site 028: view upstream


Site 029: view upstream


Site 029: view upstream


Site 030: view upstream


Site 030: view upstream


Site 031: view across


Site 032: view upstream


Site 033: view upstream


Site 034: view downstream


Site 034: view upstream


Site 035: view downstream


Site 035: view across


Site 036: view upstream


Site 036: view upstream


Site 037: streambed view


Site 037: view downstream


Site 038: view upstream


Site 039: view downstream


Site 039: view upstream


Site 040: streambed view


Site 040: view upstream


Site 040: view across


Site 041: view downstream


Site 041: dispersion


Site 041: view upstream


Site 043: streambed view


Site 044: view upstream


Site 044: view across


Site 045: view upstream


Site 046: streambed view


Site 047: view upstream


Site 048: view upstream


Site 049: view upstream


Site 050: view upstream


Site 050: view downstream


Site 051: view upstream


Site 052: view across


Site 052: view across


Site 053: view downstream


Site 054: view across


Site 055: view downstream


Site 055: view upstream


Site 056: view downstream


Site 056: view upstream


Site 057: view downstream


Site 057: view upstream


Site 058: view downstream


Site 058: view upstream


Site 59: streambed view


Site 60: view upstream


Site 59: view upstream


Site 61: view downstream


Site 61: view upstream


Site 62: view downstream


Site 62: ditch drainage from road


Site 62: seep at the road-cut


Site 62: view upstream


Site 63: view across


Site 64: view downstream


Site 64: view upstream


Site 65: streambed view


Site 67: view downstream


Site 67: view upstream


Site 68: streambed view


Site 70: streambed view


Site 72: view upstream

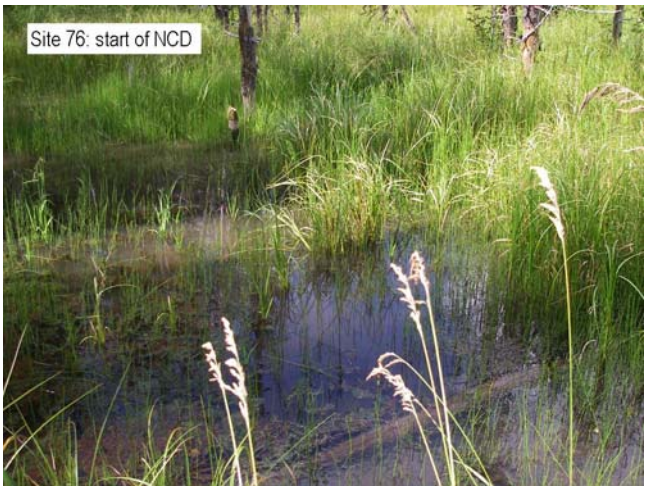

Site 72: view upstream


Site 73: view downstream


Site 73: view upstream


Site 74: view upstream


Site 76: confluence with Tchesinkut C.


Site 76: start of NCD


Site 76: view upstream


Site 76: view across


Site 77: streambed view


Site 77: view downstream


Site 77: view of mouth


Site 77: view upstream


Site 80: view downstream


Site 80: view upstream


Site 81: view downstream


Site 81: view upstream


Site 82: view upstream


Site 82: view upstream


Site 83: view downstream


Site 83: view upstream


Site 84: view downstream


Site 84: view upstream


Site 85: view across


Site 86: view downstream


Site 86: view upstream


Site 89: view upstream


Site 90: view downstream - floodplain


Site 90: view upstream - flooded forest


Site 90: view upstream - slough


Site 90: view upstream - floodplain


Site 91: view upstream


Site 91: view downstream


Site 91: view upstream - NCD


Site 92: view upstream


Site 93: view downstream


Site 93: view upstream


Site 94: view upstream


Site 95: view downstream


Site 95: view upstream


Site 96: view upstream


Site 97: view downstream


Site 97: view upstream


Site 98: view upstream


Site 101: view upstream


Site 102: view across


Site 102: view across


Site 103: view upstream


Site 103: view upstream


Site 105: view upstream


Site 106: view downstream


Site 106: view upstream


Site 107: streambed view


Site 110: view downstream


Site 110: view upstream


Site 111: Stream at CMP inlet


Site 111: culvert


Site 111: view downstream


Site 111: view upstream


Site 112: view downstream


Site 112: view upstream


Site 113: view downstream


Site 113: view upstream


Site 114: view upstream


Site 115: view upstream


Site 116: view upstream


Site 116: view downstream


Site 117: view downstream


Site 117: view upstream


Site 118: view downstream


Site 119: view upstream


Site 119: view downstream


Site 120: view downstream


Site 120: view downstream


Site 120: falls


Site 120: view upstream


Site 121: view downstream


Site 121: view upstream


Site 122: view upstream


Site 123: view across


Site 124: view upstream


Site 124: view upstream


Site 125: view downstream


Site 125: view downstream


Site 129: view downstream


Site 129: view upstream


Site 130: streambed view


Site 130: streambed view


Site 130: view upstream


Site 131: view upstream


Site 133: view downstream


Site 133: view upstream


Site 134: view downstream


Site 134: view upstream


Site 135: view upstream


Site 136: view downstream


Site 136: view upstream


Site 137: streambed view


Site 137: view upstream


Site 138: view across


Site 139: view across


Site 140: view downstream


Site 140: view upstream


Site 141: view upstream


Site 142: view downstream


Site 142: view upstream


Site 143: view downstream


Site 143: DV photo


Site 143: view upstream


Site 144: view upstream


Site 144: view across


Site 145: streambed view


Site 146: view upstream


Site 146: view across


Site 147: view upstream


Site 148: view downstream


Site 148: view upstream


Site 149: view downstream


Site 149: view upstream


Site 150: view across


Site 150: view across


Site 151: view downstream


Site 151: view upstream


Site 151: view upstream - NCD section


Site 152: view downstream


Site 153: view upstream - at crossing


Site 153: view across - dispersion


Site 154: view upstream


Site 155: view downstream


Site 155: view upstream


Site 156: view downstream


Site 156: view upstream - NCD section


Site 156: view upstream


Site 156: view across - dispersion


Site 157: view upstream


Site 159: view upstream


Site 160: view downstream


Site 160: view upstream


Site 160: view across


Site 161: view downstream


Site 161: view upstream


Site 162: view downstream


Site 162: view upstream


Site 163: view upstream


Site 164: view across


Site 165: view downstream


Site 165: view across


Site 166: view upstream


Site 166: view upstream


Site 167: view upstream


Site 168: view downstream


Site 168: view across


Site 169: streambed view


Site 169: view downstream


Site 169: view upstream


Site 170: view upstream


Site 171: streambed


Site 171: view upstream


Site 172: view upstream


Site 173: view downstream - flooded valley


Site 173: view downstream


Site 173: view upstream


Site 173: view across - wetland - NCD


Site 174: view downstream


Site 175: view upstream


Site 176: dispersion


Site 176: view upstream - channel


Site 176: view upstream - NCD


Site 177: view upstream


Site 179: view upstream


Site 180: view downstream


Site 180: view upstream


Site 181: view upstream


Site 182: view upstream


Site 182: view upstream


Site 183: view downstream


Site 183: view upstream


Site 185: view upstream


Site 186: streambed view


Site 186: streambed view


Site 187: view downstream


Site 187: view upstream


Site 188: falls


Site 188: view downstream


Site 188: view upstream


Site 188: view upstream of small wetland


Site 189: view upstream


Site 190: view upstream


Site 192: view upstream


Site 193: view downstream


Site 193: view upstream


Site 195: view downstream


Site 195: view upstream


Site 197: view upstream


Site 198: view downstream


Site 198: view upstream


Site 199: view across


Site 200: streambed


Site 200: view downstream


Site 201: view downstream


Site 201: view upstream


Site 202: view upstream


Site 203: view downstream


Site 203: view upstream


Site 204: streambed view

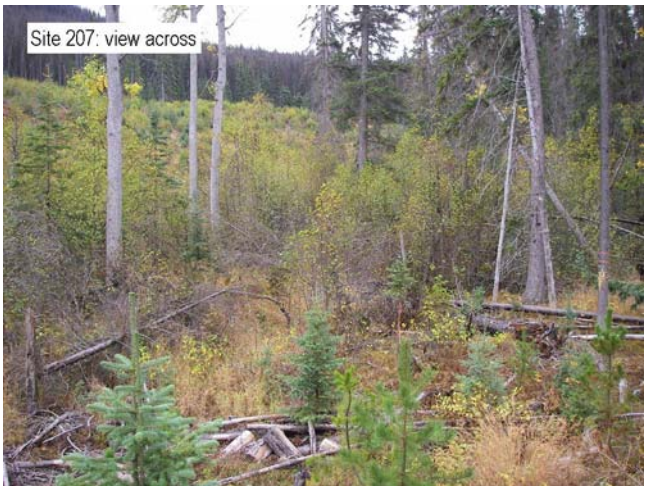

Site 204: view downstream


Site 204: view upstream


Site 205: view upstream


Site 206: view downstream


Site 206: view upstream


Site 207: view across


Site 208: streambed view


Site 208: view upstream


Site 209: view downstream


Site 209: start of dispersion


Site 209: dispersion


Site 209: view upstream


Site 210: view across


Site 211: view downstream


Site 211: view upstream


Site 213: view across


Site 214: view downstream


Site 214: view upstream


Site 215: streambed view


Site 216: streambed view


Site 217: stream bed view


Site 217: upstream of wetland


Site 217: view downstream


Site 217: dispersion - view upstream


Site 217: view upstream


Site 219: view upstream


Site 219: view downstream


Site 220: view downstream


Site 220: view upstream


Site 220: view downstream of crossing


Site 220: view upstream of crossing


Site 229X: view upstream


Site 229X: view downstream


Site 233: beaver dam


Site 234: view downstream


Site 235: view upstream


Site 235: falls

Appendix III: Hardcopy Maps

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Road 7552-39 Crossing
Map 1 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class
Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value
Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort
Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)
Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

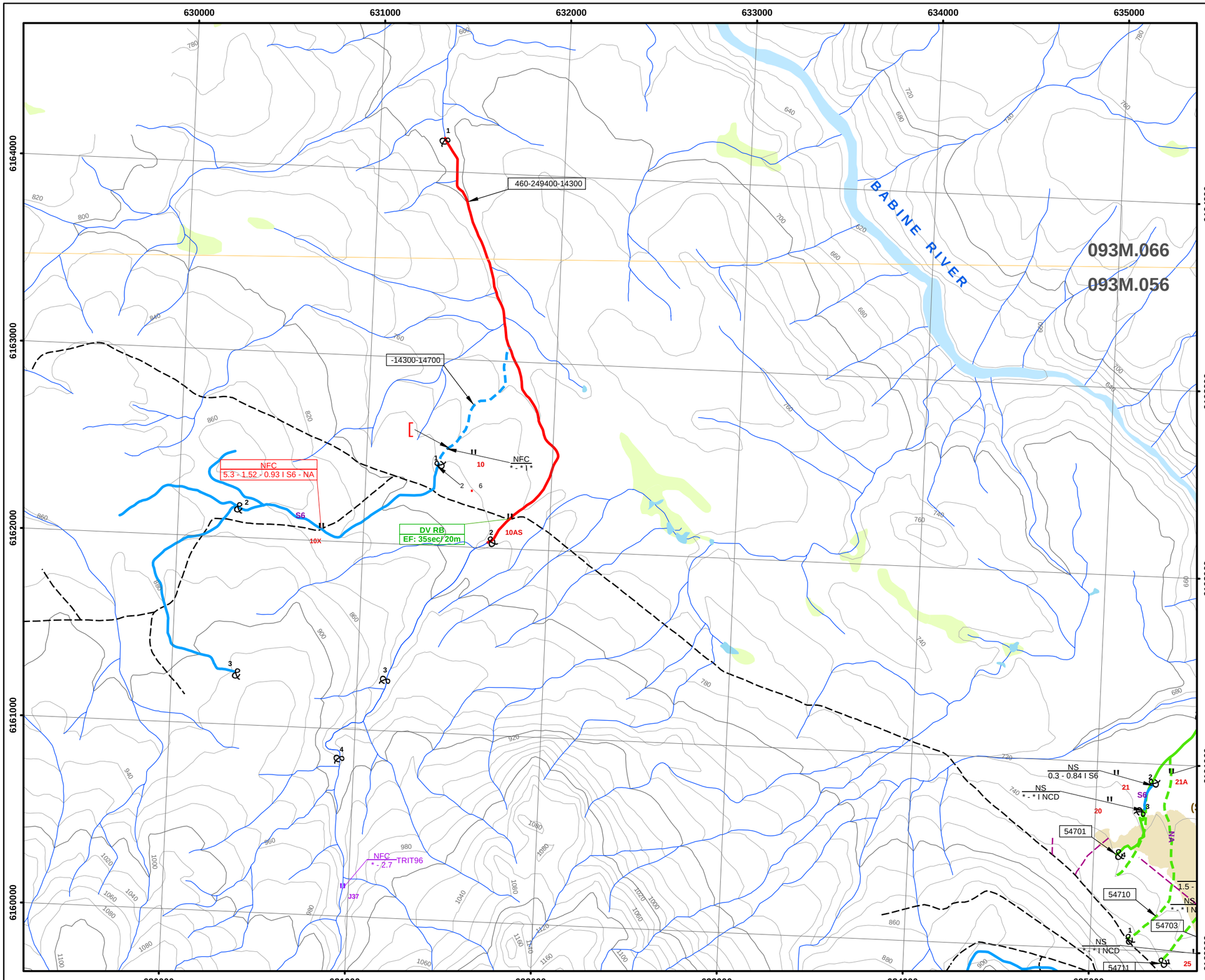
- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 — Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Road 5897-45 Crossing
Map 2 of 35



Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Proposed Blocks A82774
Map 3 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
&4 — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class
Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value
Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort
Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)
Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- J — Fisheries Sensitive Zone
- Z — Sediment Wedge
- 4 — Stream Crossing (Existing)
- 5 10 — Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Proposed Blocks A82870
Map 4 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) / NFC (RB) / 1.2 - 2.34 I S3 / Slope (%) Chan Width (m) Rip Class — Current Site Information

Sampling Results (Suspected species) / NFC (RB) / 1.2 - 2.34 - 4.56 I S3 - MG / Slope (%) Chan Width (m) Q100 cu.m /sec Rip Class Fish Hab Value — Crossing Information

Sampling Results (Suspected species) / NFC (RB) / EF:35sec/ 35m / Sampling Method Sampling Effort — Additional Sampling Information

Sampling Results (Suspected species) / NFC (RB) (CARM99) / 1.2 - 2.34 / Slope (%) Chan Width (m) — Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

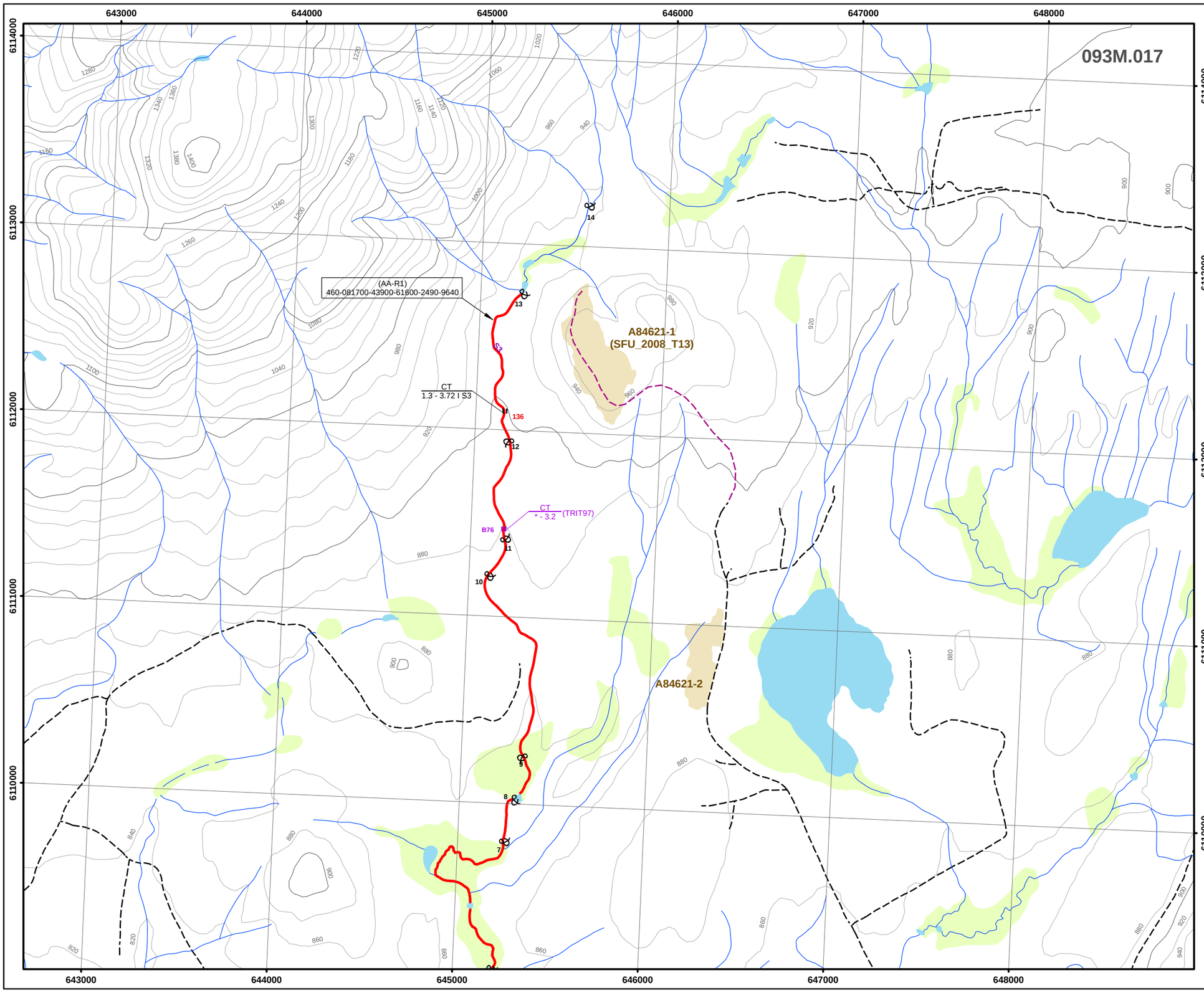
BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 Feature height and length (m)

Other Symbols:

- 500 520 Contours with elevation (20m intervals)
- 093L.056 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 Proposed Blocks with ID



2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Proposed Blocks A84621
Map 5 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Current Site Information:
Sampling Results (Suspected species) / NFC (RB) / 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class)

Crossing Information:
Sampling Results (Suspected species) / NFC (RB) / 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value)

Additional Sampling Information:
Sampling Results (Suspected species) / NFC (RB) / EF:35sec/ 35m (Sampling Method, Sampling Effort)

Historic Site Information (Consultant and year of visit):
Sampling Results (Suspected species) / NFC (RB) / 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m))

- 40 — Current site location with Site ID
- 50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Proposed Blocks A84619, A84620, and Sunnyside (424) FSR Crossings

Map 6 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present
- S1 - S6, NCD
- UND — Riparian Classess / Undetermined Riparian Class
- 12345 — Stream ILP/ID
- 123-123456-12345 — Stream Watershed Code
- & — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

- 40 — Current site location with Site ID
- 50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
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JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 — Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Proposed Blocks A84618
Map 7 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
&4 — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1,2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1,2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

" 40 — Current site location with Site ID
" 50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Proposed Blocks A57933 and 84619
Map 8 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) ↓ NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) ↓ NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) ↓ NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) ↓ NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

- 40 Current site location with Site ID
- 50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Proposed Blocks A66819 and A84622
Map 9 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Smithers Operating Area)

Proposed Blocks A82786 and A84617
Map 10 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

- 40 Current site location with Site ID
- 50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Proposed Block A84081
Map 11 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class — Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value — Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort — Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m) — Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 Feature height and length (m)

Other Symbols:

- 500 520 Contours with elevation (20m intervals)
- 093L.056 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Proposed Blocks A84077
Map 12 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

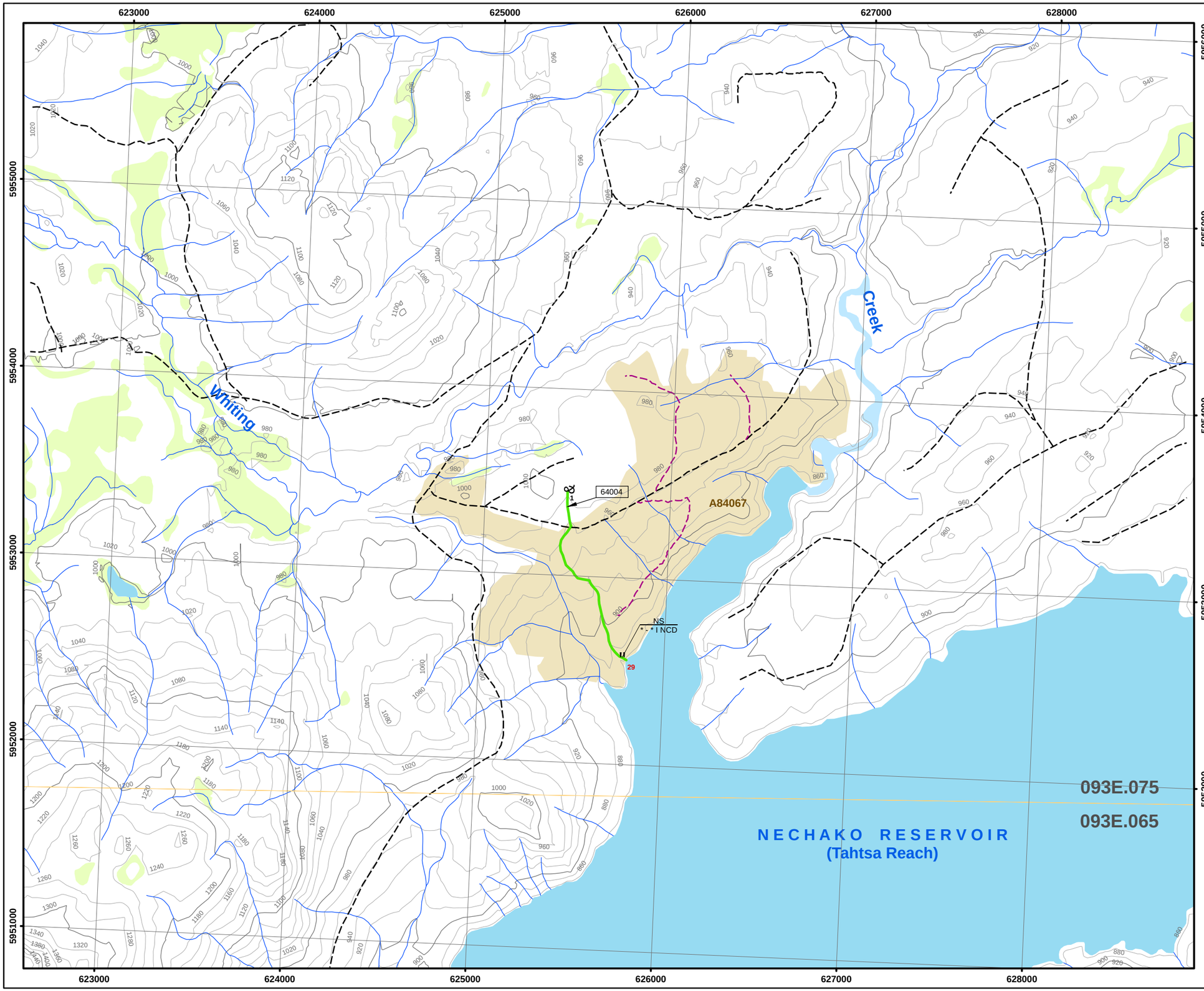
BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 — Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID



2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Proposed Blocks A84067
Map 13 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) ↓ NFC (RB) / 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) ↓ NFC (RB) / 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) ↓ NFC (RB) / EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) ↓ NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

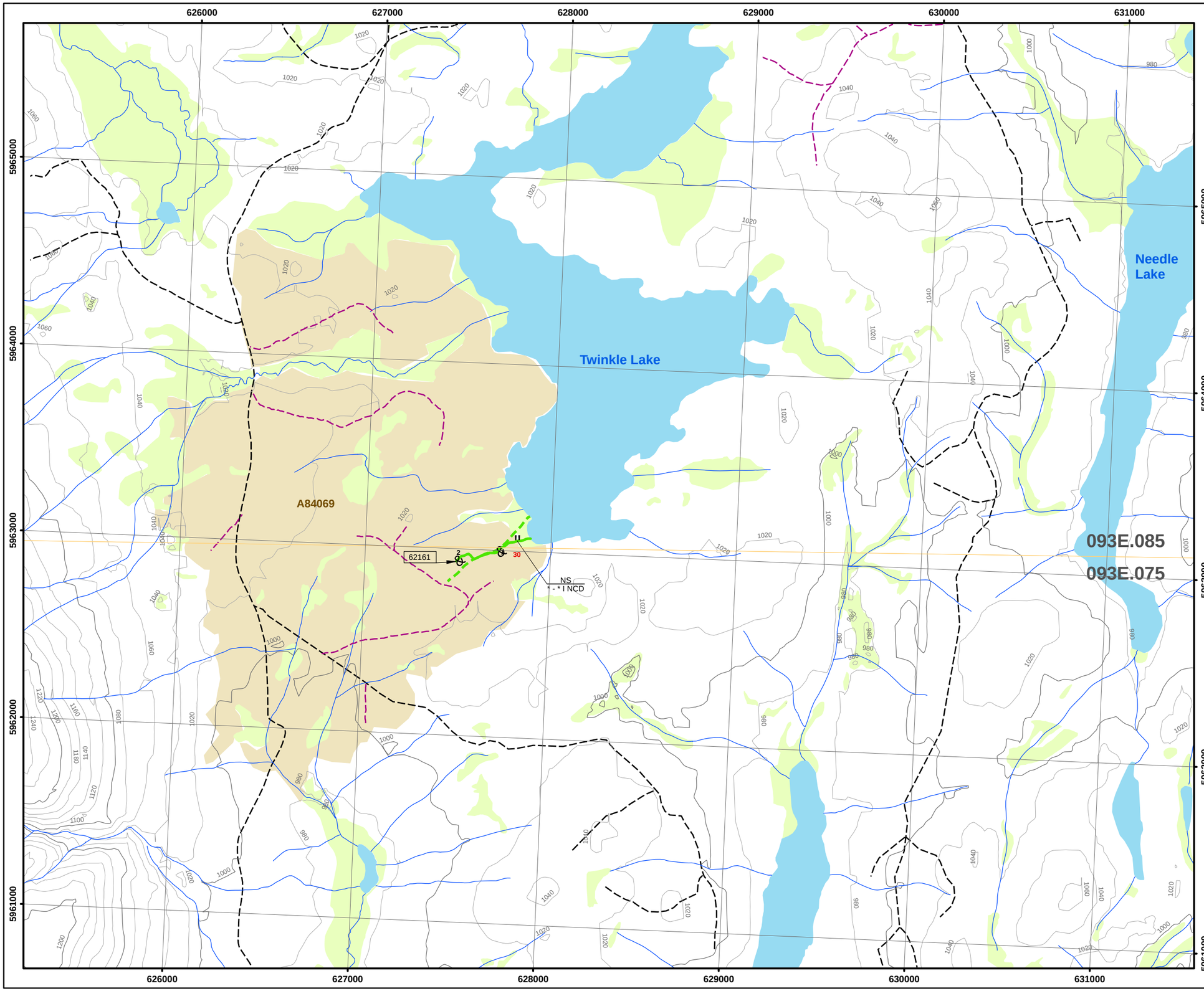
- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 Feature height and length (m)

Other Symbols:

- 500 520 Contours with elevation (20m intervals)
- 093L.056 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Proposed Blocks A84069
Map 14 of 35



N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) / 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) / 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) / EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) / 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

- 40 — Current site location with Site ID
- 50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Road 9111-11 Crossing
Map 15 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

649000 650000 651000 652000 653000 654000

6044000 6043000 6042000 6041000 6040000

Hidden Lake
Helen Lake
Summit Lake

093L.057
093L.047

NFC
6.5 - 1.05 - 0.36 I S6 - NA

219x

S6

NFC
6.5 - 1.05 I S6

219

(AA-R1)
Summit C.
460-672800

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) Chan Width (m) Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) Chan Width (m) Q100 cu.m /sec Rip Class Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) Chan Width (m)

Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- J — Fisheries Sensitive Zone
- Z — Sediment Wedge
- 4 — Stream Crossing (Existing)
- 5 10 — Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Proposed Blocks A84080
Map 16 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) / 1,2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) / 1,2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) / EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) / 1,2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 Feature height and length (m)

Other Symbols:

- 500 520 Contours with elevation (20m intervals)
- 093L.056 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Robert Hatch FSR Crossing
Map 17 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

40 — Current site location with Site ID
50 — Historic site location with Site ID

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Proposed Block A84072
Map 18 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Current Site Information:
Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class)

Crossing Information:
Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value)

Additional Sampling Information:
Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort)

Historic Site Information (Consultant and year of visit):
Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m))

40 — Current site location with Site ID
50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Houston Operating Area)

Fulton FSR 21.2KM Crossing
Map 19 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1,2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class
Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1,2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value
Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort
Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)
Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks BLFU_08: BM, BN, BP, BT, BU, BV, BW & CA Map 20 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 Feature height and length (m)

Other Symbols:

- 500 520 Contours with elevation (20m intervals)
- 093L.056 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks BLFU_08 BL & BO
Map 21 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

40 — Current site location with Site ID
50 — Historic site location with Site ID

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks BLFU_08 L & M
Map 22 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
&4 — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class
Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value
Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort
Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)
Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks BLFU_08_K
Map 23 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

093K.011

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks BLFU_08: H, I, J
Map 24 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

40 — Current site location with Site ID
50 — Historic site location with Site ID

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

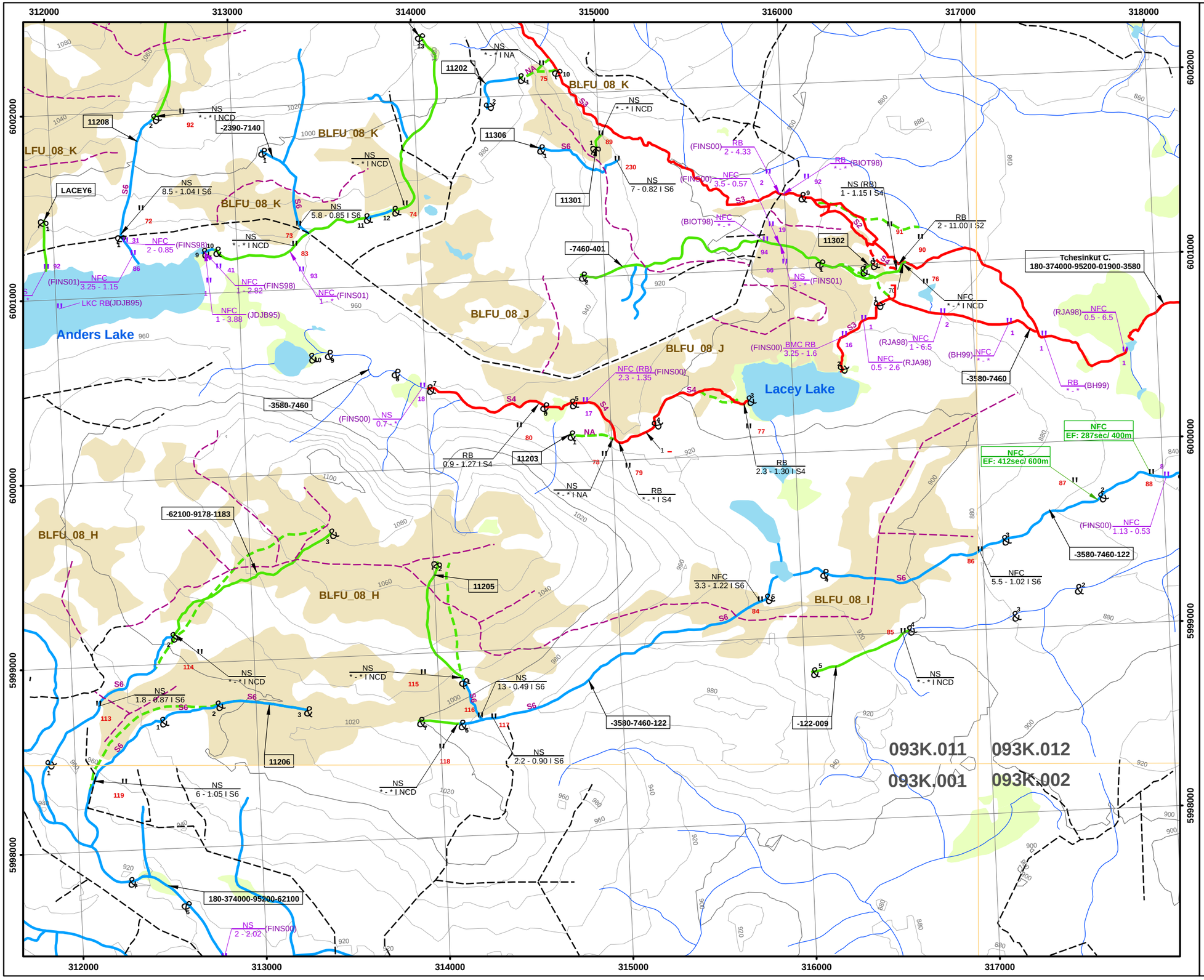
BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID



2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks BLFU_08: F & G
Map 25 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

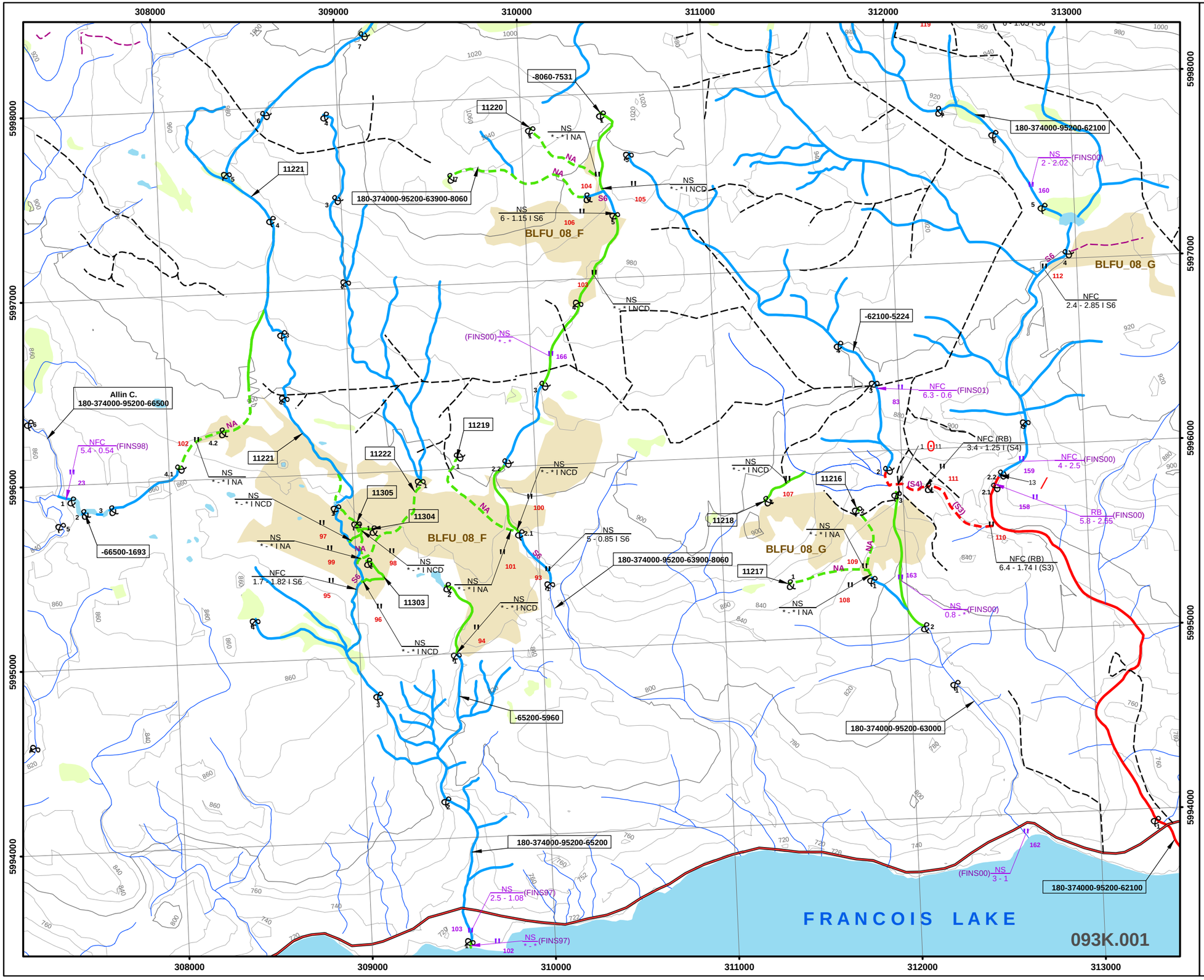
BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID



2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks BLFU_08: C, D, E

Map 26 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

- 40 — Current site location with Site ID
- 50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks BLFU_08: A & B
Map 27 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 9)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

- 40 — Current site location with Site ID
- 50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks A82493
Map 28 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class)

Current Site Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value)

Crossing Information

Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort)

Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m))

Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 — Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

311000 312000 313000 314000 315000 316000

5983000 5982000 5981000 5980000 5979000 5978000

093F.091 093F.092

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks A82491
Map 29 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

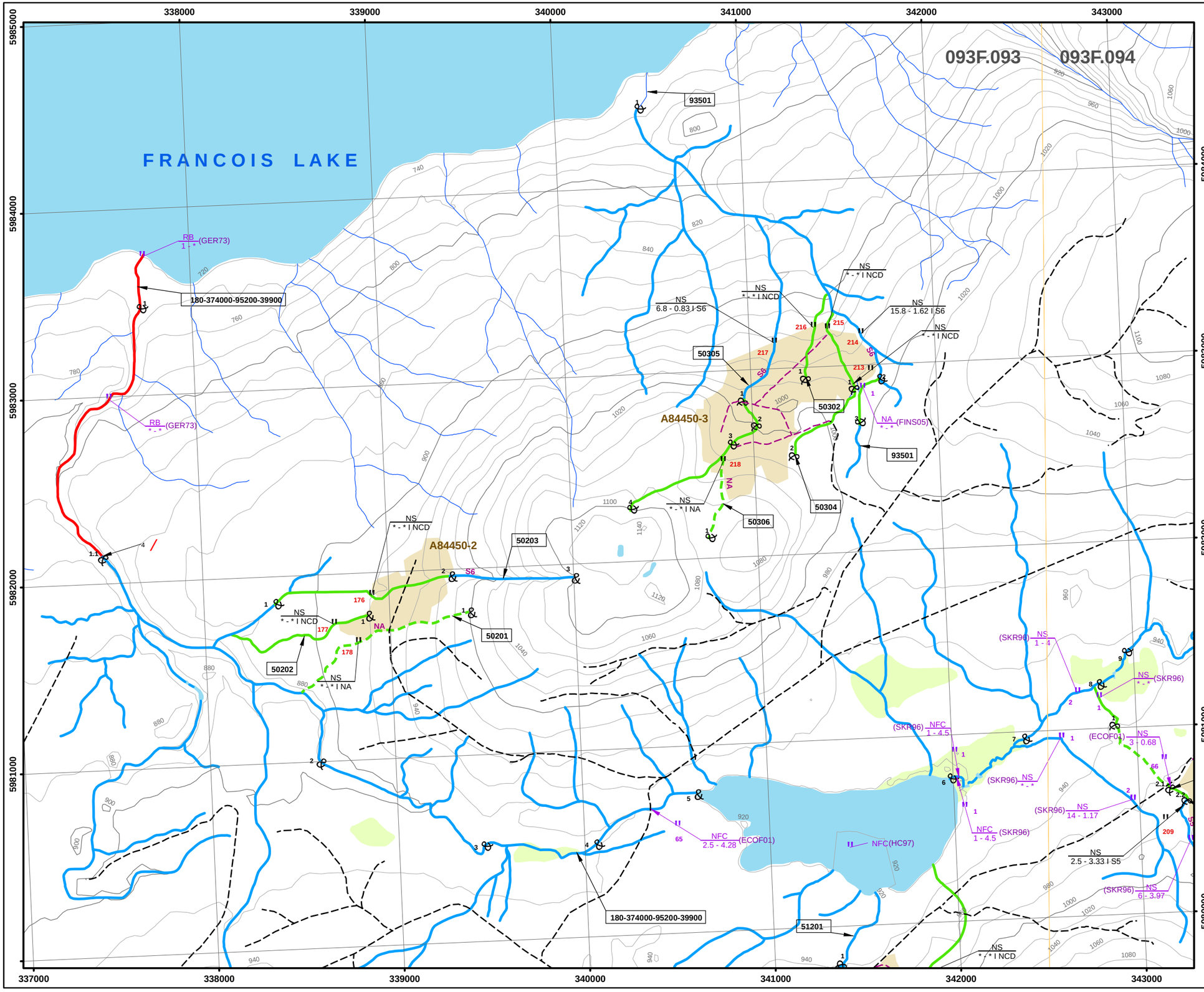
- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 — Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks A84450
Map 30 of 35



Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class

Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value

Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort

Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)

Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

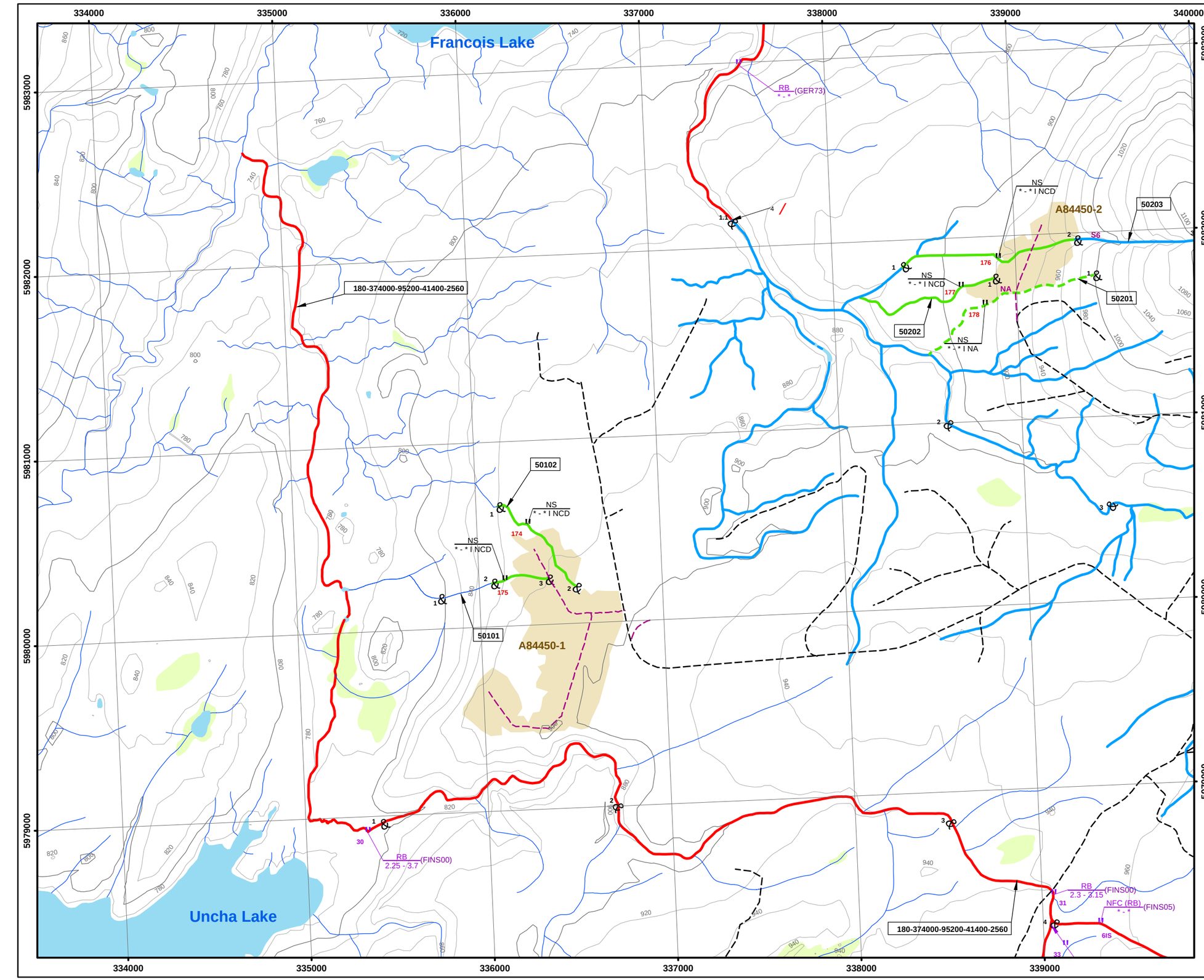
- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Block A84450-1
Map 31 of 35



Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) 1,2 - 2,34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

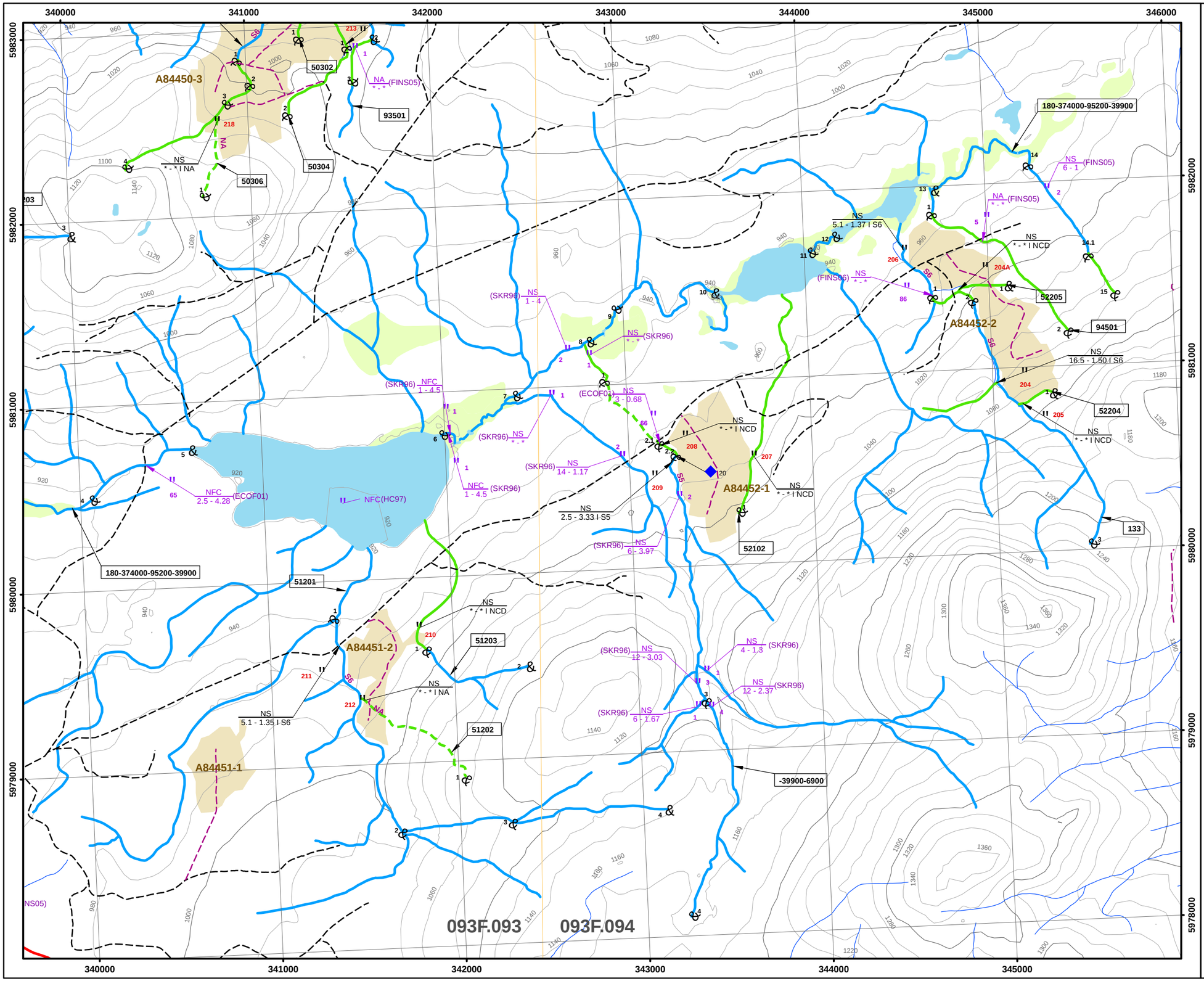
- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Block A84451 & A84452
Map 32 of 35



Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) | Chan Width (m) | Rip Class
Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) | Chan Width (m) | Q100 cu.m /sec | Rip Class | Fish Hab Value
Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method | Sampling Effort
Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) | Chan Width (m)
Historic Site Information (Consultant and year of visit)

40 — Current site location with Site ID
50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

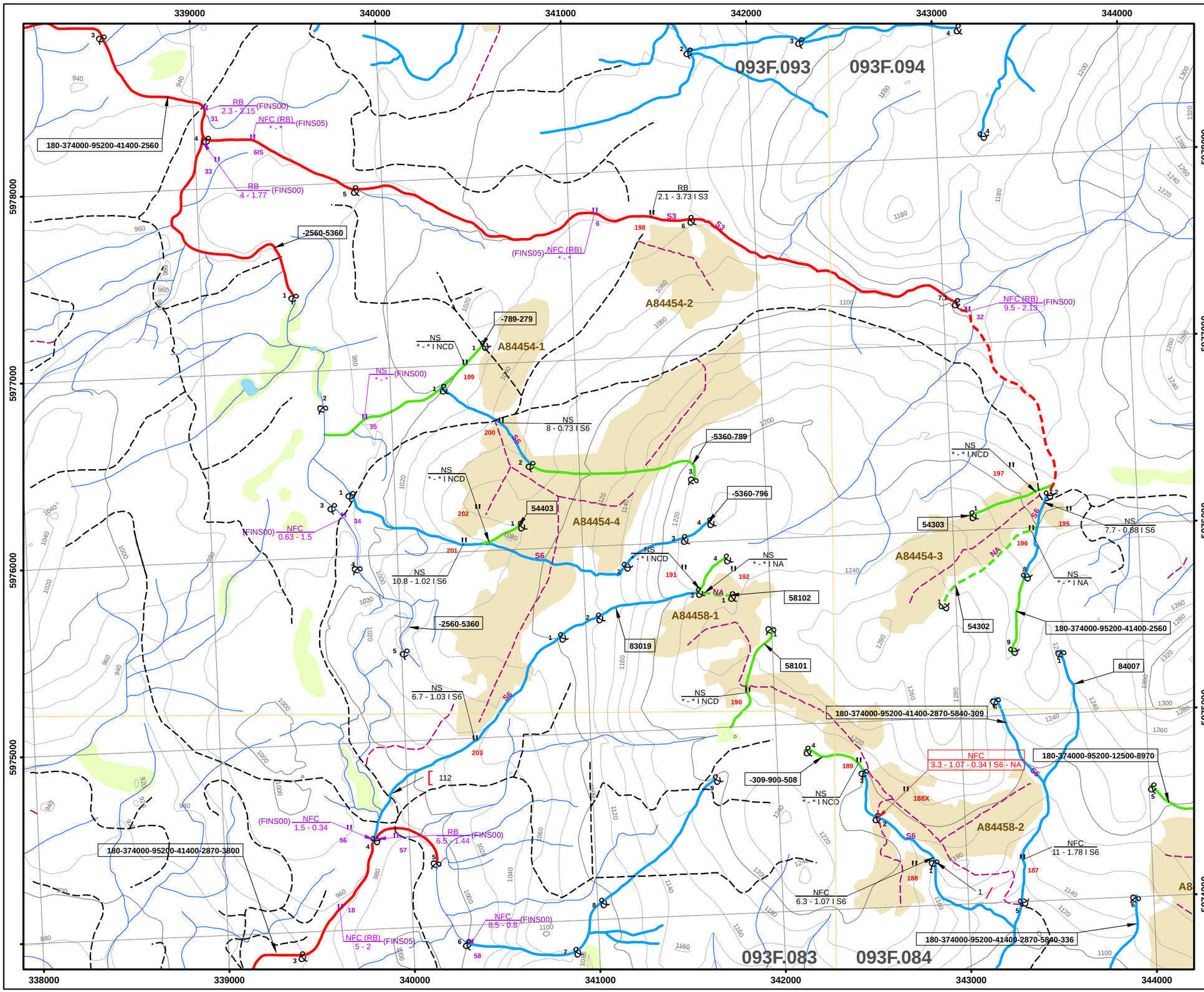
- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Block A84454 & A84458
Map 33 of 35



Scale 1:20,000

0 250 500 1,000 Meters

N W E S

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) → NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) → NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

- 40 — Current site location with Site ID
- 50 — Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- 500 520 — Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 — Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Block A84453 & A84458
Map 34 of 35

N W E S

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD	Riparian Classess
UND	Undetermined Riparian Class
12345	Stream ILP/ID
123-123456-12345	Stream Watershed Code
&	Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 I S3
Slope (%) Chan Width (m) Rip Class
Current Site Information

Sampling Results (Suspected species)
NFC (RB)
1.2 - 2.34 - 4.56 I S3 - MG
Slope (%) Chan Width (m) Q100 cu.m /sec Rip Class Fish Hab Value
Crossing Information

Sampling Results (Suspected species)
NFC (RB)
EF:35sec/ 35m
Sampling Method Sampling Effort
Additional Sampling Information

Sampling Results (Suspected species)
NFC (RB) (CARM99)
1.2 - 2.34
Slope (%) Chan Width (m)
Historic Site Information (Consultant and year of visit)

40	Current site location with Site ID
50	Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
BIOT	Biotica Consulting Ltd.
CARM	Carmanah Research Ltd.
DBA	D.Bustard & Assoc. Ltd.
ECOF	Ecofor Consulting Ltd.
FINS	FINS Consulting Ltd.
GER	G.E. Rosberg
HC	Hatfield Consulting Ltd.
JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
SKR	SKR Consultants Ltd.
TRIT	Triton Env. Cons. Ltd.

Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- 5 10 Feature height and length (m)

Other Symbols:

- 500 520 Contours with elevation (20m intervals)
- 093L.056 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
- Rivers
- Wetlands
- A12345 Proposed Blocks with ID

2008 Stream Assessment for Burns Lake Timber Sales Office Babine Business Area (Burns Lake Operating Area)

Proposed Blocks A84456
Map 35 of 35

Scale 1:20,000

0 250 500 1,000 Meters

Projection: UTM (Zone 10)
Datum: NAD83
Inventory Company: FINS Consulting Ltd.
Field Survey: July 14 - October 22, 2008

Map created by FINS Consulting Ltd.

FINS CONSULTING LTD.

Assessed Streams Symbols and Abbreviations:

- Fish present confirmed
- Suspected fish present
- Suspected fish absent
- Fish absent confirmed
- Non-classified drainage (NCD)
- No drainage present

S1 - S6, NCD — Riparian Classess
UND — Undetermined Riparian Class
12345 — Stream ILP/ID
123-123456-12345 — Stream Watershed Code
& — Reach boundary with reach number

Assessment Sites' Symbols, Labels and Abbreviations:

Sampling Results (Suspected species) ↓ NFC (RB) 1.2 - 2.34 I S3 (Slope (%), Chan Width (m), Rip Class) — Current Site Information

Sampling Results (Suspected species) ↓ NFC (RB) 1.2 - 2.34 - 4.56 I S3 - MG (Slope (%), Chan Width (m), Q100 cu.m /sec, Rip Class, Fish Hab Value) — Crossing Information

Sampling Results (Suspected species) ↓ NFC (RB) EF:35sec/ 35m (Sampling Method, Sampling Effort) — Additional Sampling Information

Sampling Results (Suspected species) ↓ NFC (RB) 1.2 - 2.34 (CARM99) (Slope (%), Chan Width (m)) — Historic Site Information (Consultant and year of visit)

40 Current site location with Site ID
50 Historic site location with Site ID

BMC	Brassy minnow
CO	Coho salmon
CR	Critical habitat
CT	Cutthroat trout
DN	Dip net
DV	Dolly Varden char
EF	Electrofishing
h	hours
IM	Important habitat
LKC	Lake chub
LSU	Longnose sucker
m	meters
MG	Marginal habitat
min	minutes
NA	Not applicable
NFC	No fish captured
NS	Not sampled
PL	Pacific lamprey
RB	Rainbow trout
sec	seconds
BH	Beacon Hills Cons. Ltd.
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JDJB	J.DeGisi, J.Burrows
RJA	RJA Forestry Ltd.
SILV	Silvicon For. Cons. Ltd.
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Fisheries Features:

- Beaver Dam
- Cascade
- Culvert
- Dewatering
- Disappearing Point
- Falls
- Fisheries Sensitive Zone
- Sediment Wedge
- Stream Crossing (Existing)
- Feature height and length (m)

Other Symbols:

- Contours with elevation (20m intervals)
- 093L.056 — 1:20K Map boundary with map ID
- Other drainages
- Paved road
- Gravel road
- Proposed road
- Lakes
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- Wetlands
- A12345 — Proposed Blocks with ID

Appendix IV: Addendum – Memo: Road 424 Crossing Assessment @ Stn = 1+440m (UTM 9.651709.6112821) of Tsak Creek.

FINS CONSULTING LTD.

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January 16, 2009

William Foster
BCTS Smithers
3333 Tatlow Road
Smithers, BC V0J 2N0

Re: Road 424 Crossing Assessment @ Stn = 1+440m (UTM 9.651709.6112821) of Tsak Creek.

1. Introduction

FINS Consulting Ltd. (FINS) of Terrace, BC, was requested in October 2008 to:

- Verify riparian classification.
- Assess fish habitat of the stream near the deactivated crossing.
- Evaluate accessibility and use by CO in the vicinity of crossing.
- Provide recommendations in order to protect fish habitat during planned reconstruction of crossing.

The stream was visited on October 19, 2008 and again on October 22, 2008. It was assessed in approximately 300m length at the crossing vicinity in reach 3 and was evaluated for passage and use by CO from mouth to reach 4.

2. Background and Past Sampling

Tsak Creek (WSC 460-504200) is a third order system and drains to the Babine Lake at UTM 9.654107.6112512, approximately 2.4km east by south of the crossing in question (see attached map).

The stream was sampled at two locations between Pete's and Babine lakes by Triton Environmental Consultants Ltd. (Triton Environmental Consultants Ltd. 1998. Reconnaissance Level Fish and Fish Habitat Inventory in the Bulkley T.S.A. (Working Unit #5 – Tsezakwa)) during 1996 fish inventory conducted for the Pacific Inland Resources. At that time coho salmon (CO) and rainbow trout (RB) were found in the creek approximately 750m from Babine Lake and cutthroat trout (CT) with Dolly Varden char (DV) were present near the Pete's Lake outlet.

3. Fish Habitat Value Rating

Habitat value rating was introduced in 2002 in order to protect fish and fish habitat and provide guidelines for the construction of proper fish passage. The decision making process in selecting an appropriate stream crossing installation was simplified and depended on the fish habitat evaluation.

In the Fish-stream Crossing Guidebook, habitat value was distinguished in three ratings:

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- **Critical** – where extremely abundant or important fish and/or fish habitat are present, habitat is critical in sustaining subsistence, commercial, or recreational fishery, or species at risk.
- **Important** – where moderately abundant fish and/or fish habitat are present, but deemed to be not critical; contains similar habitat readily available to the stock elsewhere within a particular watershed.
- **Marginal** – where sparse fish and/or fish habitat are present (i.e. low value habitat or under/non utilized habitat); habitat that marginally contributes to fish production.

4. Assessment

Due to the water temperature at 3°C, sampling method was limited to use of minnow traps (MT) and dip net only. Two MT baited with salmon roe were placed downstream and two MT upstream of crossing for the duration of six hours. During this time MT captured 18 RB fingerlings (57-129mm), six RB or CT mature fry (46-51) and two CT (63-69mm) (upstream of crossing only). Seven CO juveniles (56-63mm) were dip netted in reaches 1 and 2 and none in several suitable CO rearing pools in reach 3.

Reach 1

Access to fish is impeded to by a 1.2m high beaver dam (BD) located 140m from the mouth. Nevertheless, BD is passable to CO spawners and reach is utilized by juveniles. A 350m long section in the upper part of reach contains uniform gravel substrate throughout and likely is utilized by CO spawners; several CO juveniles were captured there. Good overwintering and rearing habitat for CO exists in the beaver pond downstream.

Photo 1: Beaver Dam in Reach 1.

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Reach 2

Stream flows through shrubby valley at 3 – 7% gradient and 5 – 8m wide channel. Eroded banks, abandoned or dry side channels, and frequent sediment wedges indicate significant erosion and aggrading processes. Unstable channel provide very limited rearing habitat and only during low flows due to the general lack of in-stream cover, extensive riffle sections and highly movable bed material. Bed material is unstratified and composed of cobble/gravel mixture. No suitable spawning or overwintering habitat was observed throughout the reach. CO juveniles were captured only in the lower section of reach within small and shallow pools in the vicinity of sediment wedges.

Physical data for reach are provided in table 1 in the Summary section.

Photo 2: Channel in Reach 2.

Reach 3

Stream flows through deep gully at 4 – 8% gradient and 4 – 7m wide channel (head of the gully in the vicinity of crossing is within transition section between reach 3 and 4 and had lower gradient). Stream is stabilized by numerous boulders present in the channel and the banks. However, sporadic sediment wedges and eroded banks were noted. Rearing habitat is overall good for trout and DV in abundant boulder-pool type cover and some LWD pools. Excellent potential CO rearing habitat was noted upstream of crossing due to abundant SWD, big pools and some in-stream vegetation. Spawning habitat is suitable only for opportunistic use by trout or DV and is scattered throughout in the form of small gravel pockets. Overwintering may occur within the infrequent deep pools (>0.5m) or in the vicinity to beaver dams and in beaver ponds in reach 4. A small bedrock falls (0.6m high) located at

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UTM 9.652139.6112442 is an impassable barrier to juvenile CO. No CO was captured in this reach.

Physical data for reach and sections up and downstream of the crossing are provided in table 1 in the Summary section.

Photo 3: Channel in Reach 3.

The Crossing

The average channel width through the deactivated crossing is 3.9m and gradient 1.6%; the average width between left and right abutment foots is 2.2m, crossing width is 15m. Four boulders provide some in-stream cover for rearing. Water pooling occasionally occurs on the upstream side of the crossing during extreme high flows, which is indicated by the remnants of sand deposits on the top of right bank, within 5m inland from the bank and erosion signs at the edge of right abutment.

Physical data for reach and sections up and downstream of the crossing are provided in table 1 in the Summary section.

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Photo 4: Crossing – view upstream.

Photo 5: Crossing – view downstream.

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5. Summary

Data collected during this assessment were used to calculate water velocities using the Manning formula (www.culvertbc.com). Roughness coefficients were derived from Manning's and Cowan's coefficients (McCuen, R. H., 2005. Hydrologic Analysis and Design), which were expanded and modified through the analysis of small stream morphology data collected by FINS during the past 13 years. Calculated wetted widths for various water flow levels were used to determine velocities at those levels; otherwise bankfull channel width was applied. Selected data are presented in Table 1 below.

Table 1: Physical parameters for the assessed sections of Tsak Creek and crossing.

Water Flow Level	Avg. Gradient (%)	Avg. Channel or Wetted Width (m)	Avg. Depth (m)	Water Velocity (m/s)
Xing @ 30% Bankfull Depth	1.6	2.20	0.23	0.71
Xing @ 50% Bankfull Depth	1.6	2.66	0.38	0.99
Xing @ 80% Bankfull Depth	1.6	3.61	0.61	1.39
Xing @ Bankfull Depth	1.6	3.90	0.76	1.61
u/s of Xing @ 30% Bankfull Depth	1.5	5.77	0.17	0.31
u/s of Xing @ 50% Bankfull Depth	1.5	5.82	0.25	0.40
u/s of Xing @ 80% Bankfull Depth	1.5	5.93	0.40	0.54
u/s of Xing @ Bankfull Depth	1.5	6.00	0.51	0.62
d/s of Xing @ 30% Bankfull Depth	2.2	4.76	0.17	0.45
d/s of Xing @ 50% Bankfull Depth	2.2	4.84	0.29	0.61
d/s of Xing @ 80%Bankfull Depth	2.2	4.97	0.46	0.81
d/s of Xing @ Bankfull Depth	2.2	5.05	0.58	0.93
R3 in 300m section near Xing @ 30% Bankfull Depth	2.0	5.09	0.17	0.33
R3 in 300m section near Xing @ 50% Bankfull Depth	2.0	5.18	0.28	0.45
R3 in 300m section near Xing @ 80% Bankfull Depth	2.0	5.30	0.44	0.60
R3 in 300m section near Xing @ Bankfull Depth	2.0	5.37	0.56	0.69
R3 @ 30% Bankfull Depth	5.6	5.43	0.22	0.67
R3 @ 50% Bankfull Depth	5.6	5.51	0.33	0.86
R3 @ 80% Bankfull Depth	5.6	5.68	0.42	1.01
R3 @ Bankfull Depth	5.6	5.75	0.53	1.16
R2 @ 30% Bankfull Depth	4.7	6.22	0.14	0.87
R2 @ 50% Bankfull Depth	4.7	6.31	0.24	1.20
R2 @ 80% Bankfull Depth	4.7	6.44	0.38	1.61
R2 @ Bankfull Depth	4.7	6.52	0.47	1.84

Indicates velocity constrains to all juveniles.
Indicates velocity constrains to small juveniles.

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Calculated water velocities were compared to swimming capabilities of CO, CT and RB (Parker, M.A., 2000. Fish Passage – Culvert Inspection Procedures) captured during assessment in order to determine fish passage abilities through existing crossing and also to determine access and passage for CO through reaches 2 and 3. These capabilities are presented in the Table 2.

Table 2: Swimming capabilities of CO, CT and RB.

Species	Life Stage	Maximum swimming speed (m/s)		
		Sustained*	Prolonged**	Burst***
CO	Adults	0.0 – 2.7	2.7 – 3.2	3.2 – 6.6
	Juveniles (120mm)	NA	0.4 - 0.6	NA
	Juveniles (50mm)	NA	0.2 - 0.4	NA
CT, RB	Adults	0.0 - 0.9	0.9 - 1.8	1.8 - 4.3
	Juveniles (125mm)	0.0 - 0.4	0.4 - 0.7	0.7 - 1.1
	Juveniles (50mm)	0.0 - 0.1	0.1 - 0.3	0.3 - 0.4

* Swimming speed that can be maintained indefinitely.

** Swimming speed that can be maintained up to 200 minutes through difficult areas.

*** Swimming speed for escape and feeding that can be maintained up to 165 seconds.

CO juveniles rear in streams near Babine Lake for the period of one to two years and can reach approximately 80mm in length. They prefer rearing habitat in streams up to 6% gradient with very abundant SWD, LWD and cutbanks cover in long pools (≥ channel width); sometimes also in 1 – 2% gradient streams with abundant boulder – pool type cover and they avoid any riffle sections. They are not as good swimmers as CT or RB, which can live in riffles by utilizing cover provided by bigger rocks (personal observations). Although burst speed for juvenile CO is unavailable likely it is similar to those of CT or RB.

5. Conclusions

- Tsak Creek is fish-bearing and was assigned S2 riparian classification.
- Tsak Creek was assigned important fish habitat value rating.
- DV is blue listed specie and likely inhabits all reaches due to documented historic presence near Pete's Lake outlet.
- Abutments at the deactivated crossing at stn=1+440m of 424 FSR constrict natural channel and increase water velocities over 2-folds during all flows.
- Constricted channel at the crossing impedes passage for small juveniles during all flows.
- Constricted channel at the crossing impedes passage for older juveniles during flows above 50% bankfull depth.
- Constricted channel does not contain sufficient boulder cover to reduce water velocities.

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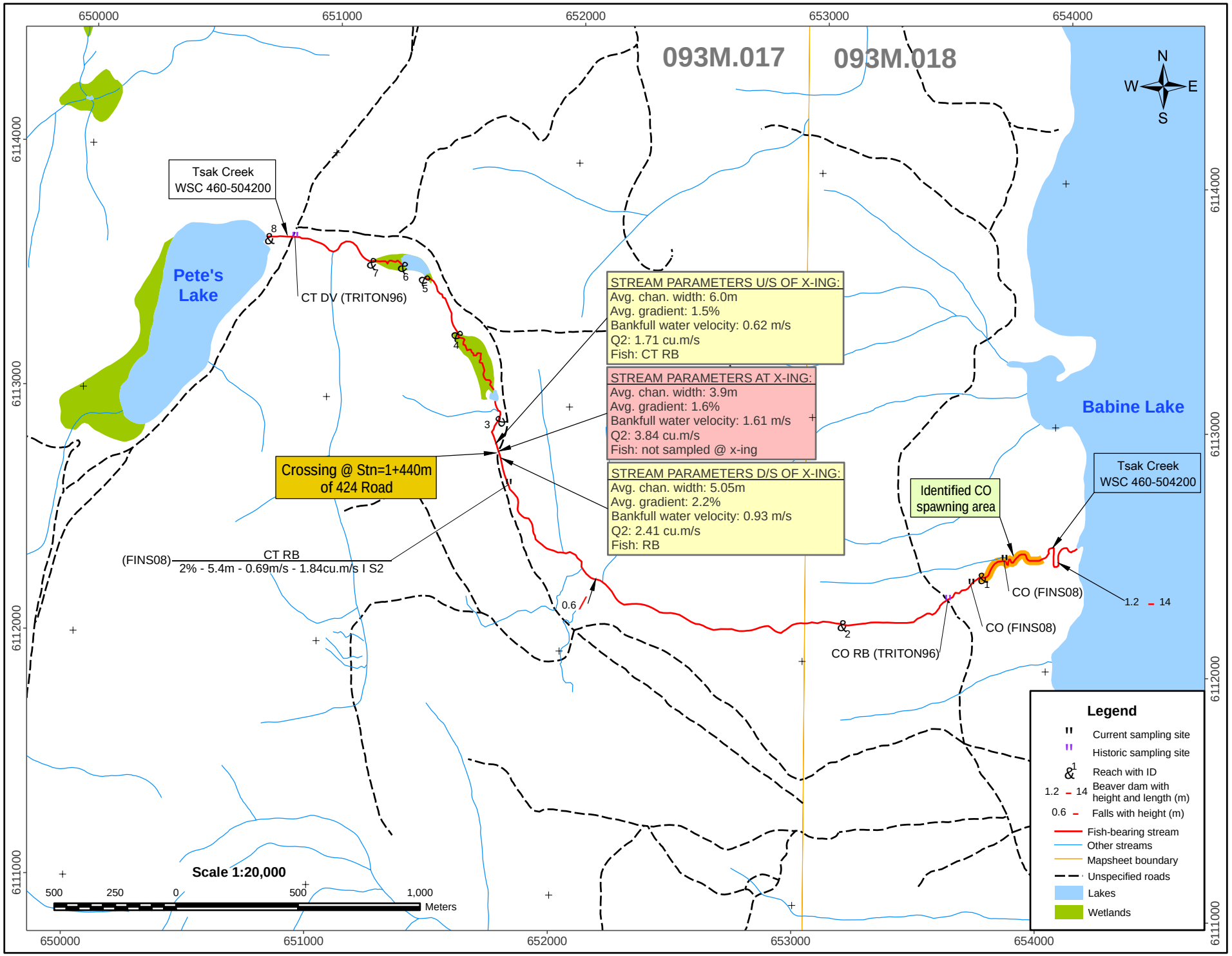
- Lack of suitable CO spawning habitat in reaches 2 and 3 precludes adult CO migration to those reaches.
- Water velocities in reaches 2 and 3 are prohibitive to juvenile CO migration at all flows and upper reach 2 likely marks limit of CO distribution in the system.

6. Recommendations

- Construction site should be isolated to prevent fish access and all fish from stream within construction area should be removed.
- Channel should be widened to the similar width as natural channel of the stream.
- Several boulders should be placed in the reconstructed channel to provide sufficient cover for fish and to maintain water velocities similar to those in natural stream.
- Construction should commence approximately 7 – 10 days after RB/CT fry emerged (fry emergence generally occur in the 1st half of August).
- Fry emergence should be monitored by the qualified personnel.

Mac Jedrzejczyk, M.Sc., R.P.Bio
Fisheries Biologist


650000
651000
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653000
654000
6114000
6113000
6112000
6111000
093M.017
093M.018
N
W
E
S
Tsak Creek
WSC 460-504200
Pete's
Lake
CT DV (TRITON96)
STREAM PARAMETERS U/S OF X-ING:
Avg. chan. width: 6.0m
Avg. gradient: 1.5%
Bankfull water velocity: 0.62 m/s
Q2: 1.71 cu.m/s
Fish: CT RB
STREAM PARAMETERS AT X-ING:
Avg. chan. width: 3.9m
Avg. gradient: 1.6%
Bankfull water velocity: 1.61 m/s
Q2: 3.84 cu.m/s
Fish: not sampled @ x-ing
STREAM PARAMETERS D/S OF X-ING:
Avg. chan. width: 5.05m
Avg. gradient: 2.2%
Bankfull water velocity: 0.93 m/s
Q2: 2.41 cu.m/s
Fish: RB
Crossing @ Stn=1+440m
of 424 Road
(FINS08)
CT RB
2% - 5.4m - 0.69m/s - 1.84cu.m/s I S2
Babine Lake
Identified CO
spawning area
Tsak Creek
WSC 460-504200
CO (FINS08)
CO (FINS08)
CO RB (TRITON96)
1.2 - 14
0.6
Scale 1:20,000
500 250 0 500 1,000
Meters
Legend
Current sampling site
Historic sampling site
Reach with ID
1.2 - 14 Beaver dam with height and length (m)
0.6 - Falls with height (m)
Fish-bearing stream
Other streams
Mapsheet boundary
Unspecified roads
Lakes
Wetlands