

**Reconnaissance (1:20,000) Fish and Fish Habitat Inventory**

**Upper Pinkut Creek Watershed**

**2001/02**

**General Watershed Code: 480-927700-\*\*\*\*\***

Prepared for:

**Babine Forest Products Co.**

Box 4000

Burns Lake, BC

V0J 1E0

Prepared by:

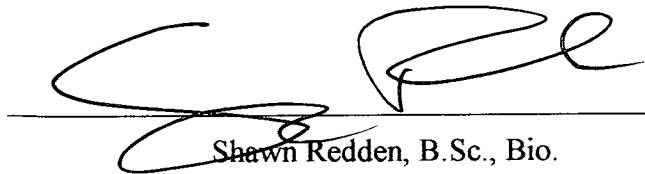
**FINS Consulting Ltd.**

#215 - 4546 Park Avenue

Terrace, BC

V8G 1V4

Approved by:



Shawn Redden, B.Sc., Bio.

**March 31, 2002**

## Project Reference Information

|                                         |                                                           |
|-----------------------------------------|-----------------------------------------------------------|
| <b>FRBC Multi-Year Agreement Number</b> | 0000105                                                   |
| <b>MELP Project Number</b>              | BFP-C016-001-2002                                         |
| <b>FRBC Activity Number</b>             | 10437                                                     |
| <b>FDIS Project Code</b>                | 1644                                                      |
| <b>FDIS Project WSC</b>                 | 480-927700                                                |
| <b>FRBC Region</b>                      | Smithers Region                                           |
| <b>MELP Region</b>                      | 06 - Skeena                                               |
| <b>FW Management Unit</b>               | 6-6                                                       |
| <b>DFO Sub-District</b>                 | 4D                                                        |
| <b>Forest Region</b>                    | Prince Rupert                                             |
| <b>Forest District</b>                  | Lakes Forest District                                     |
| <b>Forest Licensee and Tenure #</b>     | Babine Forest Products Company<br>Forest Licences A-16823 |
| <b>First Nations Claim Area</b>         | Carrier-Sekani, Wet'suwet'en                              |

## Watershed Information

|                                         |                                                                                              |
|-----------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Watershed Group</b>                  | BABL (Babine Lake)                                                                           |
| <b>Watershed Name</b>                   | Pinkut Creek                                                                                 |
| <b>Watershed Code</b>                   | 480-927700                                                                                   |
| <b>UTM at Mouth</b>                     | 10.325890.6034480 (UTM is of Pinkut Creek at lower project boundary)                         |
| <b>Watershed Area (km<sup>2</sup>)</b>  | 95.9                                                                                         |
| <b>Total of all Stream Lengths (km)</b> | 163                                                                                          |
| <b>Stream Order</b>                     | 4                                                                                            |
| <b>NTS Maps</b>                         | 93 K/5, 93 K/12                                                                              |
| <b>TRIM Maps</b>                        | 93K.041, 93K.042, 93K.051                                                                    |
| <b>BEC Zone</b>                         | SBS, ESSF                                                                                    |
| <b>Air Photos</b>                       | BCC98022 109-116<br>BCC98022 158-170<br>BCC98023 42-50<br>BCC98023 85-92<br>BCC98023 180-185 |

## Sampling Design Summary

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| <b>Total Number of Reaches</b>      | 262                               |
| <b>Random Sample Reaches</b>        | 12                                |
| <b>Discretionary Sample Reaches</b> | 26                                |
| <b>Total Sample Reaches</b>         | 38                                |
| <b>% of Reaches Sampled</b>         | 14.5                              |
| <b>Field Sampling Dates</b>         | September 19 – September 24, 2001 |

## Abbreviations Used in this Report

|          |                                                                                                   |          |                                                        |
|----------|---------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------|
| Avg      | Average                                                                                           | M        | Moderate flow, moderate turbid or medium size stream   |
| BB       | Burbot ( <i>Lota lota</i> )                                                                       | MELP     | Ministry of Environment, Lands and Parks               |
| BD       | Stream bed, beaver dam                                                                            | M/L      | Mainline                                               |
| BFP      | Babine Forest Products Company                                                                    | MT       | Minnow trap                                            |
| BGC      | Biogeoclimatic zone                                                                               | MW       | Mountain whitefish ( <i>Prosopium williamsoni</i> )    |
| BMC      | Brassy minnow ( <i>Hybognathus hankinsoni</i> )                                                   | NA       | Not applicable                                         |
| C        | Clear (not turbid)                                                                                | NCD      | Not classified drainage                                |
| C.       | Creek                                                                                             | NCD*     | No drainage present at mapped location                 |
| CAS      | Prickly sculpin ( <i>Cottus asper</i> )                                                           | Neg      | Film negative                                          |
| CBC      | Chub-general                                                                                      | NFC      | No fish captured                                       |
| CC       | Sculpins -general                                                                                 | NFP      | No fish present                                        |
| CD       | Compact disc                                                                                      | NS       | Not sampled                                            |
| CH       | Chinook salmon ( <i>O. tshawytscha</i> )                                                          | NSC      | Northern pike minnow ( <i>Ptycheilus oregonensis</i> ) |
| CO       | Coho salmon ( <i>O. kisutch</i> )                                                                 | NTS      | National Topographic Survey                            |
| Cond.    | Conductivity                                                                                      | NVC      | No visible channel                                     |
| CPUE     | Catch per unit effort                                                                             | PCC      | Peamouth chub ( <i>Mylocheilus caurinus</i> )          |
| CSU      | Largescale sucker ( <i>Catostomus macrocheilus</i> )                                              | pH       | Acidity or alkalinity measurement unit                 |
| CT       | Cutthroat trout ( <i>O. clarki</i> )                                                              | Prop     | Proposed                                               |
| CW       | Channel width                                                                                     | PW       | Electric pulse width                                   |
| D        | Downstream                                                                                        | R.       | River                                                  |
| DFO      | Department of Fisheries and Oceans                                                                | RB       | Rainbow trout ( <i>O. mykiss</i> )                     |
| Dir      | Direction                                                                                         | Rd       | Road                                                   |
| Dist.    | Distance                                                                                          | Rip      | Riparian                                               |
| d/s      | Downstream                                                                                        | RSC      | Redside shiner ( <i>Richardsonius balteatus</i> )      |
| DV       | Dolly Varden char ( <i>Salvelinus malma</i> )                                                     | RSS      | Regionally significant species                         |
| EF       | Electrofishing                                                                                    | S1 - S6  | Riparian classes                                       |
| Exp      | Expected                                                                                          | sec      | Seconds                                                |
| FDIS     | Field Data Information System                                                                     | S        | Small size stream                                      |
| FISS     | Fisheries Information Summary System                                                              | SBS      | Sub-Boreal Spruce BGC                                  |
| FPC      | Forest Practices Code                                                                             | SK       | Sockeye salmon ( <i>O. nerka</i> )                     |
| FRBC     | Forest Renewal of British Columbia                                                                | S/S/I    | Straight, sinuous or irregular wandering channels      |
| Freq     | Electric current frequency                                                                        | Spp.     | Species                                                |
| FRIM     | Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures (Version 1.1) | STD      | Standard                                               |
| Grad     | Slope gradient                                                                                    | ST/SI/IR | Straight, sinuous or irregular wandering channels      |
| H        | High flow                                                                                         | T        | Turbid                                                 |
| Hz       | Hertz                                                                                             | Temp     | Temperature                                            |
| ILP      | Interim Locational Point                                                                          | TRIM     | Terrain Resource Information Management                |
| I/M/T    | Irregular meandering, meandering or tortuous meandering channels                                  | Turb     | Turbidity                                              |
| IM/ME/TM | Irregular meandering, meandering or tortuous meandering channels                                  | U        | Upstream                                               |
| Info.    | Information                                                                                       | u/s      | Upstream                                               |
| km       | Kilometer                                                                                         | X        | Across                                                 |
| KO       | Kokanee ( <i>O. nerka</i> )                                                                       | UTM      | Universal Transverse Mercator coordinates              |
| L        | Lamprey -- general ( <i>Lampetra spp.</i> )                                                       | V        | Volts                                                  |
| L        | Low flow, lightly turbid or large size stream                                                     | Volt     | Voltage                                                |
| L.       | Lake                                                                                              | Wb       | Bankfull depth                                         |
| LKC      | Lake chub ( <i>Couesius plumbeus</i> )                                                            | WCB      | Workers Compensation Board                             |
| LNC      | Longnose dace ( <i>Rhinichthys cataractae</i> )                                                   | WSC      | Watershed code                                         |
| LSU      | Longnose sucker ( <i>Catostomus catostomus</i> )                                                  | W1-W5    | FPC wetland classes                                    |
| LT       | Lake trout ( <i>S. namaycush</i> )                                                                | µs       | Microseconds                                           |
| LW       | Lake whitefish ( <i>Coregonus clupeaformis</i> )                                                  | µS       | Microsiemens                                           |
| LWD      | Large Woody Debris                                                                                | °C       | Temperature                                            |
| m        | Meter                                                                                             | %        | Slope gradient                                         |
| mm       | Millimeter                                                                                        |          |                                                        |

## Contractor Information

|                                                                                                       |                                                                                                                             |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Project Manager:</b>                                                                               | Karen Grainger, R.P.Bio., Babine Forest Products<br>Box 4000, Burns Lake, B.C. V0J 1E0<br>(250) 692-7177                    |
| <b>Sub-contractor:</b>                                                                                | FINS Consulting Ltd.<br>#215 - 4546 Park Avenue, Terrace, BC, V8G 1V4<br>(250) 635-8481                                     |
| <b>Field crew:</b><br><b>Data Entry by:</b><br><b>Report prepared by:</b><br><b>Report edited by:</b> | S. Redden, M. Jedrzejczyk, M. Janowicz, M. Gostomski<br>S. Redden, M. Jedrzejczyk<br>S. Redden, M. Jedrzejczyk<br>S. Redden |
| <b>Maps prepared by:</b>                                                                              | Magellan Digital Mapping<br>4820 Halliwell Avenue, Terrace, B.C. V8G 2J4<br>(250) 635-0972                                  |
| <b>QA Completed by:</b>                                                                               | ACER Resource Consulting Ltd.<br>4820 Halliwell Avenue, Terrace, B.C. V8G 2J4<br>(250) 638-0110                             |

## **Disclaimer**

This product has been accepted as being in accordance with approved standards within the limits of Ministry quality assurance procedures. Users are cautioned that interpreted information on this product developed for the purposes of the Forest Practices Code Act and Regulations, for example stream classifications, is subject to review by a statutory decision maker for the purposes of determining whether or not to approve an operational plan.

## **Acknowledgments**

Forest Renewal B.C provided funding for this project. We would also like to give special thanks to those people who made this project possible, tolerable and even fun. Matt Jessop, who helped throughout the project and maintained the “common sense” approach; Lynn Miers, whose quick responses to our frequent requests still amaze us, Sam Buchanan, for her prompt and timely QA deliveries throughout the project, and Karen Grainger for, above all else, putting up with us throughout the field portion of the project.

# Table of Contents

|                                                                         |           |
|-------------------------------------------------------------------------|-----------|
| PROJECT REFERENCE INFORMATION .....                                     | ii        |
| WATERSHED INFORMATION .....                                             | ii        |
| SAMPLING DESIGN SUMMARY .....                                           | ii        |
| ABBREVIATIONS USED IN THIS REPORT .....                                 | iii       |
| CONTRACTOR INFORMATION .....                                            | iv        |
| DISCLAIMER .....                                                        | v         |
| ACKNOWLEDGMENTS .....                                                   | v         |
| TABLE OF CONTENTS .....                                                 | vi        |
| LIST OF TABLES .....                                                    | vii       |
| LIST OF FIGURES .....                                                   | vii       |
| LIST OF ATTACHMENTS AVAILABLE AT REGIONAL MELP OFFICE IN SMITHERS ..... | viii      |
| <b>1. INTRODUCTION .....</b>                                            | <b>1</b>  |
| 1.1 PROJECT SCOPE AND OBJECTIVES .....                                  | 1         |
| 1.2 LOCATION .....                                                      | 1         |
| 1.3 ACCESS .....                                                        | 1         |
| <b>2. RESOURCE INFORMATION .....</b>                                    | <b>3</b>  |
| <b>3. METHODS .....</b>                                                 | <b>3</b>  |
| 3.1 PROJECT PLAN AND ALTERATIONS .....                                  | 3         |
| 3.2 RECONNAISSANCE STANDARDS .....                                      | 4         |
| <b>4. RESULTS AND DISCUSSION .....</b>                                  | <b>6</b>  |
| 4.1 LOGISTICS .....                                                     | 6         |
| 4.2 FISH DISTRIBUTION AND HABITAT .....                                 | 6         |
| 4.2.1 <i>Fish Presence and Distribution</i> .....                       | 6         |
| 4.2.2 <i>Habitat</i> .....                                              | 7         |
| 4.3 FISH STAGE, SIZE AND LIFE HISTORY .....                             | 7         |
| 4.4 SIGNIFICANT FEATURES AND FISHERIES OBSERVATIONS .....               | 9         |
| 4.4.1 <i>Fish and Fish Habitat</i> .....                                | 9         |
| 4.4.2 <i>Habitat Protection Concerns</i> .....                          | 9         |
| 4.4.2.1 Fisheries Sensitive Zones .....                                 | 9         |
| 4.4.2.2 Fish Above 20% Gradients .....                                  | 9         |
| 4.4.2.3 Restoration and Rehabilitation Opportunities .....              | 9         |
| 4.5 FISH BEARING STATUS .....                                           | 9         |
| 4.5.1 <i>Summary of all Surveyed Reaches</i> .....                      | 9         |
| 4.5.2 <i>Non Fish-bearing Reaches</i> .....                             | 13        |
| 4.5.3 <i>Follow-up Sampling Required</i> .....                          | 18        |
| <b>5. BIBLIOGRAPHY .....</b>                                            | <b>19</b> |
| <b>6. APPENDICES .....</b>                                              | <b>21</b> |

## List of Tables

|                 |                                                                                                                 |           |
|-----------------|-----------------------------------------------------------------------------------------------------------------|-----------|
| <b>Table 1:</b> | <b>Historical information on fish presence within the Upper Pinkut Creek watershed .....</b>                    | <b>3</b>  |
| <b>Table 2:</b> | <b>Summary of historic and new barriers to fish migration found in the Upper Pinkut watershed .....</b>         | <b>6</b>  |
| <b>Table 3:</b> | <b>Summary of life stage, length and CPUE data from fish sampled within the Upper Pinkut watershed .....</b>    | <b>8</b>  |
| <b>Table 4:</b> | <b>Summary of data from all surveyed reaches in the Upper Pinkut watershed .....</b>                            | <b>11</b> |
| <b>Table 5:</b> | <b>Fish sampling results for categorized reach classes (from 1997 through 2001 inventory data) .....</b>        | <b>13</b> |
| <b>Table 6:</b> | <b>Summary of data from surveyed non-fish-bearing reaches in the Upper Pinkut watershed .....</b>               | <b>16</b> |
| <b>Table 7:</b> | <b>Follow-up sampling required for confirmation of fish-bearing status for the Upper Pinkut watershed .....</b> | <b>18</b> |

## List of Figures

|                  |                                                                                                                         |           |
|------------------|-------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Figure 1:</b> | <b>Project Area Overview Map.....</b>                                                                                   | <b>2</b>  |
| <b>Figure 2:</b> | <b>Length-frequency histogram of sampled RB in the Upper Pinkut watershed, September 19 to September 24, 2001. ....</b> | <b>8</b>  |
| <b>Figure 3:</b> | <b>Flowchart of the stream classification process used in determining fish-bearing status of surveyed reaches.....</b>  | <b>10</b> |

## **List of Attachments Available at Regional MELP Office in Smithers**

The following material is supplemental to this report and is available at the MELP office in Smithers, B.C. The attachments provide information for all watersheds as defined in Schedule A (i.e., Endako tributaries, Tchesinkut Lake tributaries and the Upper Pinkut watershed)

### **Attachment I            Planning Document**

- i) Phase Completion Report
- ii) Project budget break-down by phase
- iii) FDIS Project sampling design plan
- iv) Hardcopy and digital Reach Table
- v) Hardcopy and digital Lake Table
- vi) Hardcopy and digital copy of the random sample table
- vii) List of air photographs

### **Attachment II            Hardcopy FISS Update Data Forms and Maps**

### **Attachment III          Photodocumentation**

- i) Photodocumentation Form 1
- ii) FDIS Photodocumentation Export File
- iii) Indexed Album of all negatives
- iv) 2 Indexed Copies of Photo CD's

### **Attachment IV          Field Data**

- i) site cards, fish collection forms, individual fish data forms and field notes
- ii) field working maps

### **Attachment V            Digital Data**

# 1. Introduction

## 1.1 Project Scope and Objectives

The objective of this project was to conduct a Reconnaissance (1:20,000) Fish and Fish Habitat Inventory in several watersheds within the Francois Lake (FRAN) high-level watershed group. Specifically, left-bank tributaries to the Endako River east of the Village of Burns Lake, B.C. This is a continuation of a multi-year FRBC project commenced in 1996 for Babine Forest Products Company (BFP).

These inventories have a multi-phased approach with a total of six phases required to complete the inventory. Phases I through III are known as the pre-field phases and consist of 1) existing data review, 2) classification and sampling design and, 3) project plan. Phase IV consists of field data collection where site level fish and fish habitat data is collected for pre-determined reaches and lakes, although no lakes were surveyed as part of this project. Phases V and VI embody data compilation, mapping and reporting for the inventory. This report encompasses Phases V and VI and is one of three reports produced under the scope of this project. However, the pre-field deliverables and project-planning document (available at the MELP Regional office in Smithers) are essential references for this report.

## 1.2 Location

The Upper Pinkut Creek watershed is located approximately 22km north-northeast of the Village of Burns Lake, B.C. in the Upper Pinkut sub-unit within Babine Forest Products Co. operating area. The area covered by this project includes the entire Pinkut Creek watershed upstream from the Augier mainline crossing, approximately 1km downstream from the Pinkut Lake outlet.

The project overview map (Figure 1) on the following page provides the general location of the study area.

## 1.3 Access

Most of the project area watersheds were located within well-roaded areas, with vehicle access being the predominant method of access for reach sampling. No helicopter or boat access was required. Access to Pinkut Creek from Burns Lake is as follows:

1. From Burns Lake, drive north on the Old Babine Lake road for approximately 18km to the Augier mainline junction,
2. Turn left onto the Augier mainline and drive to 42.5km on this road, at which point it crosses Pinkut Creek in reach 1.

Sampled reaches from this location were accessed via the Augier, North, Taman and Lower Pinkut roads, in addition to the numerous branch and spur roads that stem from these roads.

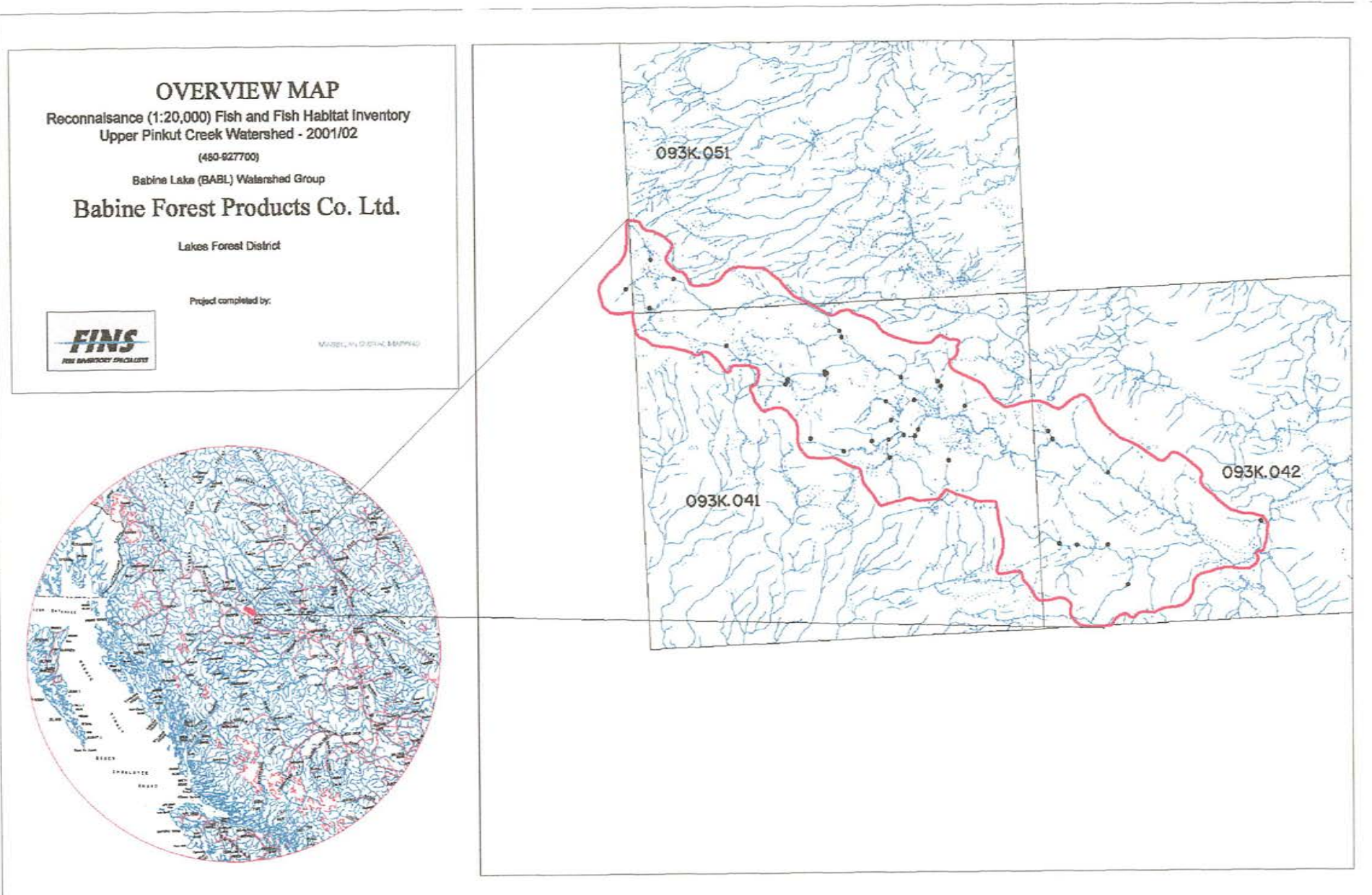


Figure 1: Project Area Overview Map.

## 2. Resource Information

Resource use within the area is almost exclusively forest management for timber extraction in BFP's operating area. Recreation opportunities exist in Pinkut and Augier Lakes in the vicinity, but these are not located within the Upper Pinkut Creek watershed. The project area is located within Carrier-Sekani and Wet'suwet'en land. No significant wildlife use or impacts were noted within this area.

Historical information regarding fish presence was collected and presented in the planning report (FINS, 2001), and the results were incorporated into the interpretive maps for this project. Table 1 below summarizes historical fish presence within the watershed. This table does not include documented fish presence outside of the project area.

**Table 1: Historical information on fish presence within the Upper Pinkut Creek watershed**

| WBID and/or Watershed Code | Waterbody Name | Fish Species | Source/Comments                                                                                                                 |
|----------------------------|----------------|--------------|---------------------------------------------------------------------------------------------------------------------------------|
| 480-927700                 | Pinkut Creek   | CT KO RB SU  | Wildstone, 1997. Documents species presence/absence in various streams in the watershed, as mapped on interpretive maps.        |
| 480-927700-*****           |                | RB           | FINS, 2001. FINS, 2002. Documents species presence/absence in various streams in the watershed, as mapped on interpretive maps. |

- FISS = Fisheries Information Summary System

## 3. Methods

### 3.1 Project Plan and Alterations

Initial work, such as review of all existing information, preparation of fisheries information maps, location of stream features and selection of sample sites was completed during Phase 1-3 by FINS (Aug, 2001). The original planning report identified 38 reaches for sampling (14 random and 24 discretionary) within 261 total reaches in the study area. Upon completion of Phase 4, the actual number of sample sites was 38 (12 random and 26 discretionary) within 262 reaches. The differing numbers are generally the result of obstructions to fish passage whereby originally planned reach sampling above the obstructions was abandoned in favour of confirming the fish-bearing status upstream, as per the Guidelines for Local Area Agreement Preparation (June 1999). This also explains the difference in total reach number as several reaches were broken into separate reaches based on the presence or absence of fish. Additional discretionary sample reaches were chosen from a list of contingency sample reaches so that all reach categories remained appropriately represented.

## 3.2 Reconnaissance Standards

Methodology used throughout this project was consistent with the standards and methods as defined in the "Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures (April 2001)" manual and all standards referenced therein.

### Fish Sampling

Electrofishing and visual observation were the primary methods used for fish sampling throughout the field portion of this project. These methods were to be supplemented by the use of minnow traps, when logistically feasible, when electrofishing was not effective or potentially harmful to fish (i.e. deep wetland channels, low water temperatures) and sampling results were inconclusive, but these circumstances did not occur.

### Measurements

Stream channel and wetted widths were determined using a meter tape. When possible, a minimum of six channel width measurements were made along each site at a distance of approximately one channel width apart. Stream depth measurements were determined using a meter stick. Stream gradient measurements were determined using an Abney level along several sections of the site. Site lengths were determined either by hip chain or by ground estimate. Measurements of falls were based on ground estimates or calculated using the following formula:

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

Where H = Height of falls (in m)

And  $H_o$  = 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). Cascade heights and lengths were determined using a hip chain and Abney level. Vertical cascade height was calculated using the gradient and slope distance according to the formula:

$$\text{Height (m)} = \sin(\tan^{-1}(\text{gradient } (\%))) \times \text{slope distance (m)}$$

Stream water temperatures were determined using an alcohol thermometer while pH and conductivity measurements were made using Oakton portable meters, which were calibrated daily using standardized solutions.

### Site Numbering Convention

Site numbers for this project have been assigned in an upstream ascending order for all sampled reaches under the scope of this project. Site numbers have been included in all tables that provide specific reach sampling information and on all photographs and photodocumentation indices.

### Usage of ILP Numbers

A naming convention for all ILP's has also been used in order to simplify stream referencing for this project for streams requiring watershed codes. All 5-digit ILP numbers that have been assigned are unique within the entire project area. This was done to avoid confusion in ILP

referencing throughout the project and having to reference the ILP map number each time the ILP is referenced.

Every ILP created uses the last two digits of its ILP map, combined with its number on the map. That is, the first ILP on TRIM mapsheet 93K.015 would be ILP **15001**. All streams in this report are referred to by their ILP or watershed code (last two sets of non-zero numbers), or by their stream name, as identified in the Subdrainage Reference Information at the beginning of this report.

### **NVC (No Visible Channel) Reaches**

There were three types of situations in which site assessment in the field revealed no visible channel. They include reaches where no drainage was present, reaches that were not a stream by FPC definition, or wetland-type reaches where there was no defined channel present. These different types of NVC reaches were noted in the comments on the site cards and are summarized in the "Fish-Bearing Status" section of this report. It is expected that NVC reaches would receive a "Non Classified Drainage" (NCD) FPC classification.

### **Appendix Layout - FDIS Reach/Site Summaries, Photographs and Maps**

FDIS reach site summaries for sampled reaches have been included in Appendix I. In addition to the standard FDIS reach site summary, comments from the corresponding site and fish cards have been extracted from the cards and provided on the bottom of the page. Photodocumentation references for each site have also been included on this summary page. The reach/site summaries are arranged by site number. The photographs are included in Appendix II and are arranged by roll and frame number. The photographs have been reduced in size so that multiple photos can be presented on one page. Each photo is labeled with roll, frame, watershed code/ILP, reach and site numbers so that each photo can be easily cross-referenced in the index, report, the FDIS database, the negative binder and the photo CD's. All photos are available in Kodak photo CD format, included in Attachment III. Fisheries and Interpretive maps have also been produced and are included as a rolled attachment for this report. Phase Completion Reports and QA reports are provided in Appendices IV and V, included only for the submission to the MELP office in Smithers.

### **Field Equipment**

All sampling equipment specifications are listed below:

- 2 Smith-Root model 12B P.O.W. Backpack Electrofishers
- 50 Gee-type minnow traps
- 2 Oakton pHTestr2 pH meters (with pH 7 & 10 buffer solutions)
- 2 Oakton TDSTestr3 conductivity meters (with 1413µS/cm solution)
- 2 Abney Levels, alcohol thermometers, Silva compasses
- 2 Pentax Zoom 90WR cameras
- assorted other equipment including tight chains, hip chains, dip nets, fishing rods, magnifying lenses, meter sticks, meter tapes
- 2 4X4 trucks equipped with Level 1 First Aid kits and 4 personal First Aid kits, as per WCB requirements

## 4. Results and Discussion

The following sections present fish and fish habitat information for the Upper Pinkut Creek watershed, as identified earlier in this report. Biophysical information for this area is provided in the Watershed Information section at the beginning of this report. Summarized information for sampled reaches is presented in tabular format in the "Fish Bearing Status" section of this report while detailed site-specific information is available in the appendices.

Presence of barriers that influenced fish migration and distribution in the project area are summarized in Table 2 below. Barriers located in confirmed non fish-bearing reaches have not been included in this table.

**Table 2: Summary of historic and new barriers to fish migration found in the Upper Pinkut watershed**

| Watershed Code/ILP | TRIM MAP | Reach | Site | Barrier Type | Height (m) | Length (m) | Verified in Field | Comments                                                                                             |
|--------------------|----------|-------|------|--------------|------------|------------|-------------------|------------------------------------------------------------------------------------------------------|
| 480-927700-69200   | 093K.041 | 7     | 158  | Beaver Dam   | 1.5        | 17         | Y                 | Temporary barrier which blocks seasonal fish passage into u/s reaches. Located 3.8km u/s from mouth. |
| 41013              | 093K.041 | 4     | 171  | Cascade      | 2.5        | 6          | Y                 | Blocks all fish passage and marks upper fish distribution limit. Located 2.2km u/s from mouth.       |

### 4.1 Logistics

No logistical problems were encountered throughout the course of sampling in the project area.

### 4.2 Fish Distribution and Habitat

#### 4.2.1 Fish Presence and Distribution

Lake chub and rainbow trout were the only fish species encountered within the 38 reaches sampled in this area. All lake chub were captured in three reaches, all within the -927700-85400 system. Rainbow trout were present in low numbers in all 7 of the 38 reaches sampled. They were found in Pinkut Creek and in just 3 of the 13 sampled tributaries. Specifically, they were captured in reaches 10 and 14 of Pinkut Creek, reach 7 of -927700-69200, reaches 5, 6 and 11 of -927700-90000 and in reach 1 of -927700-91300. The relatively low densities of rainbow trout in these reaches may explain the overall low rainbow trout use in this watershed, especially given the availability of habitat. Although no permanent physical barriers to fish were identified, the existence of wetlands and beaver dams are likely further limiting rainbow trout use, especially given the low fish abundance in the watershed. Of the fish-bearing streams, no extents of fish use were determined and it is expected that rainbow trout likely reside throughout all available habitat. Fish absence in other streams in the watershed were generally the result of an overall lack of fish habitat.

Cutthroat trout and longnose sucker have also been historically documented to reside in the upper Pinkut watershed (Wildstone, 1997) but their absence in this inventory indicates that juvenile

rainbow trout and lake chub were likely misidentified as cutthroat trout and longnose sucker, respectively.

#### **4.2.2 Habitat**

The best rainbow trout habitat within sampled fish-bearing reaches in this watershed is provided in Pinkut Creek, -927700-90000 and -927700-91300. Good to excellent rearing habitat is available in reaches 10 and 14 of Pinkut Creek, reaches 5, 6 and 11 of -927700-90000 and in the first reach of -927700-91300. This habitat is provided predominantly in deep pool and cutbank type cover in riffle-pool morphology. With the exception of reach 5 of -927700-90000, these reaches also all provide good to excellent spawning habitat. Suitable rounded gravels and sufficient holding areas are abundant in these reaches, providing excellent spawning opportunity. In addition, good spawning habitat was also observed in reach 5 of -927700-69200, although this reach was not sampled in this inventory. The best overwintering habitat is present in reaches 10 and 14 of Pinkut Creek and in reaches 5, 6 and 11 of -927700-90000, which provide excellent opportunity in abundant very deep pools.

#### **4.3 Fish Stage, Size and Life History**

Fork length and maturity level of all fish sampled were recorded on the individual fish data forms. The life stage (fry, juvenile, or adult) for each fish was determined in the field based on length measurements, physical characteristics, and the habitat in which each fish was found. All captured fish appeared healthy and did not exhibit any external signs of disease.

Lake chub within this watershed were sampled only in the -927700-85400 system. They likely reside throughout similar low gradient systems.

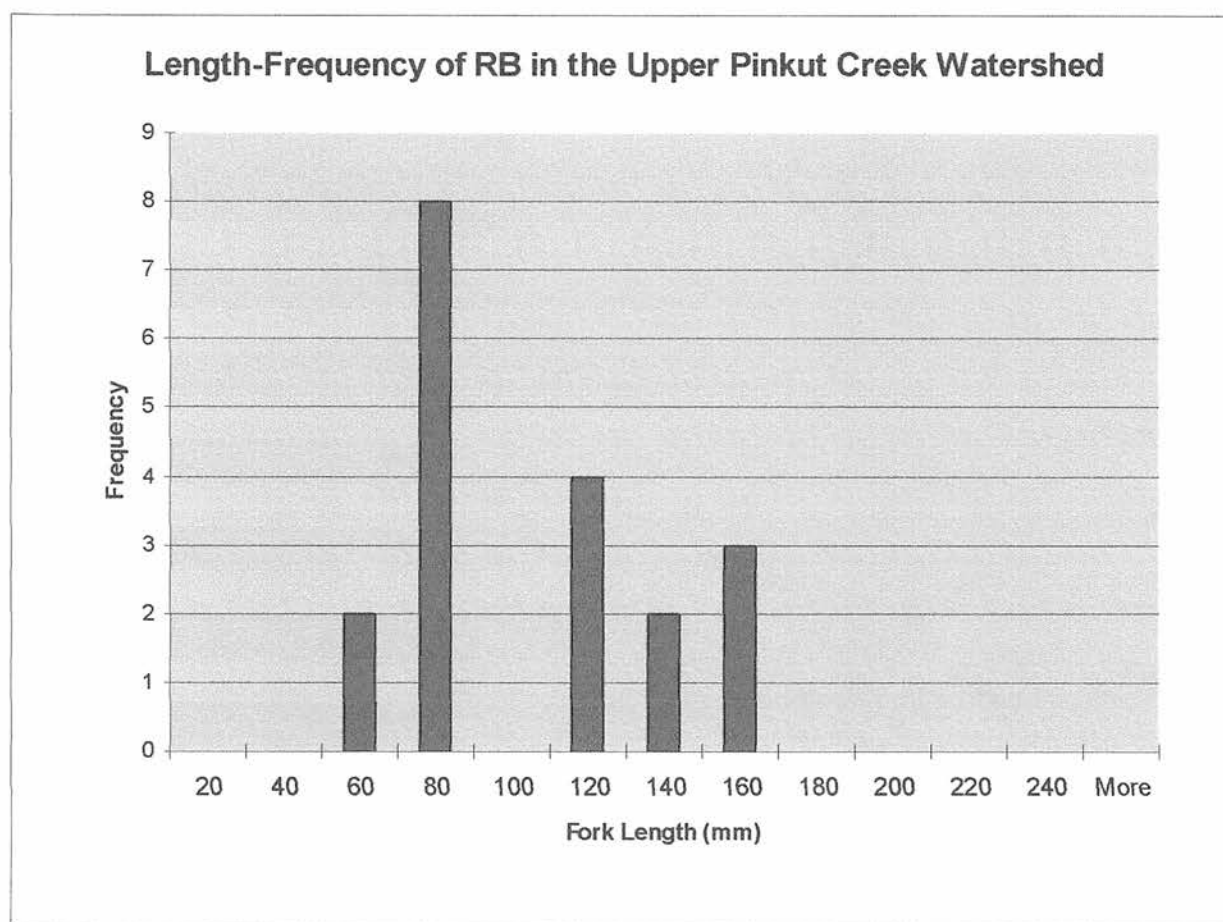
A total of 17 rainbow trout were sampled within this area and both the juvenile and adult life stages were represented (Table 3). Although insufficient numbers of rainbow trout were sampled within this area to provide any meaningful interpretation of their life history, abundant and diverse perennial habitat and the presence of small adult rainbow trout suggests presence of a fluvial population. In addition, this watershed is likely utilized by rainbow trout populations from Pinkut Lake. However, this use may only occur below reach 10, since rainbow trout abundance upstream was very low. The lower portion of the Upper Pinkut watershed is possibly important for rainbow trout recruitment for fish populations from Pinkut Lake. Incidental observation of a large rainbow trout spawning pair (~35-40cm) in June, 2001 in reach 5 of -927700-69200 indicates that rainbow trout use from Pinkut Lake is probably occurring.

Table 3 presents data for fish species encountered in this watershed. The CPUE column in the table indicates the number of fish captured per second of electrofishing. This data is extracted only from those reaches where the species were sampled by electrofishing (324 of the 329 LKC juveniles were captured in minnow traps). Estimated age classes for rainbow trout are included in the table.

**Table 3: Summary of life stage, length and CPUE data from fish sampled within the Upper Pinkut watershed**

| Stream Name  | Watershed Code | Spp. | Stage | Estimated Age Class | Number of Fish | Mean Length (mm) | Range of Lengths (mm) | CPUE (# of fish/sec electrofishing) |
|--------------|----------------|------|-------|---------------------|----------------|------------------|-----------------------|-------------------------------------|
| Pinkut Creek | 480-927700     | LKC  | F     |                     | 7              | 25.3             | 22-28                 | 0.028                               |
|              |                | LKC  | J     |                     | 329            | 65.1             | 32-124                | 0.012                               |
|              |                | RB   | J     | 0+                  | 2              | 55.0             | 52-58                 | 0.002                               |
|              |                | RB   | J     | 1+                  | 8              | 68.5             | 63-78                 | 0.015                               |
|              |                | RB   | J     | 2+                  | 6              | 115.8            | 104-138               | 0.008                               |
|              |                | RB   | A     | 3+                  | 3              | 151.0            | 150-153               | 0.001                               |

Figure 2 below provides general information on frequency of occurrence of RB within different length classes for the Upper Pinkut Creek watershed for all fish captured in this inventory.



**Figure 2: Length-frequency histogram of sampled RB in the Upper Pinkut watershed, September 19 to September 24, 2001.**

## **4.4 Significant Features and Fisheries Observations**

### **4.4.1 Fish and Fish Habitat**

- Historical documentation of cutthroat trout and longnose sucker presence in this watershed in a report submitted by Wild Stone Resources Ltd. in 1997 were likely misidentified rainbow trout and lake chub, respectively. This report also contains mapping errors of other fish and fish habitat information.
- Confirmed relatively low abundance of rainbow trout in the watershed.

### **4.4.2 Habitat Protection Concerns**

#### **4.4.2.1 Fisheries Sensitive Zones**

No fisheries sensitive zones were identified in this inventory.

#### **4.4.2.2 Fish Above 20% Gradients**

No fish were captured in gradients greater than 20% in this inventory.

#### **4.4.2.3 Restoration and Rehabilitation Opportunities**

No restoration or rehabilitation opportunities were identified in this inventory.

## **4.5 Fish Bearing Status**

The following three sections summarize the fish-bearing status for all surveyed reaches within the entire project area. The first section summarizes all surveyed reaches; the second section presents information for all non fish-bearing reaches and the third section identifies reaches where follow-up sampling should be conducted. An overview of the process used in determining fish-bearing status is presented in a flowchart in Figure 3 on the following page.

### **4.5.1 Summary of all Surveyed Reaches**

Table 4 on the following pages summarizes all surveyed reaches in the project area. In addition to confirmed fish-bearing reaches, non fish-bearing reaches and reaches requiring follow-up sampling have also been identified and summarized in this table. They are also discussed in further detail in the "Non Fish-bearing Reaches" and "Follow-up Sampling Required" sections of this report.

## Stream Classification Process

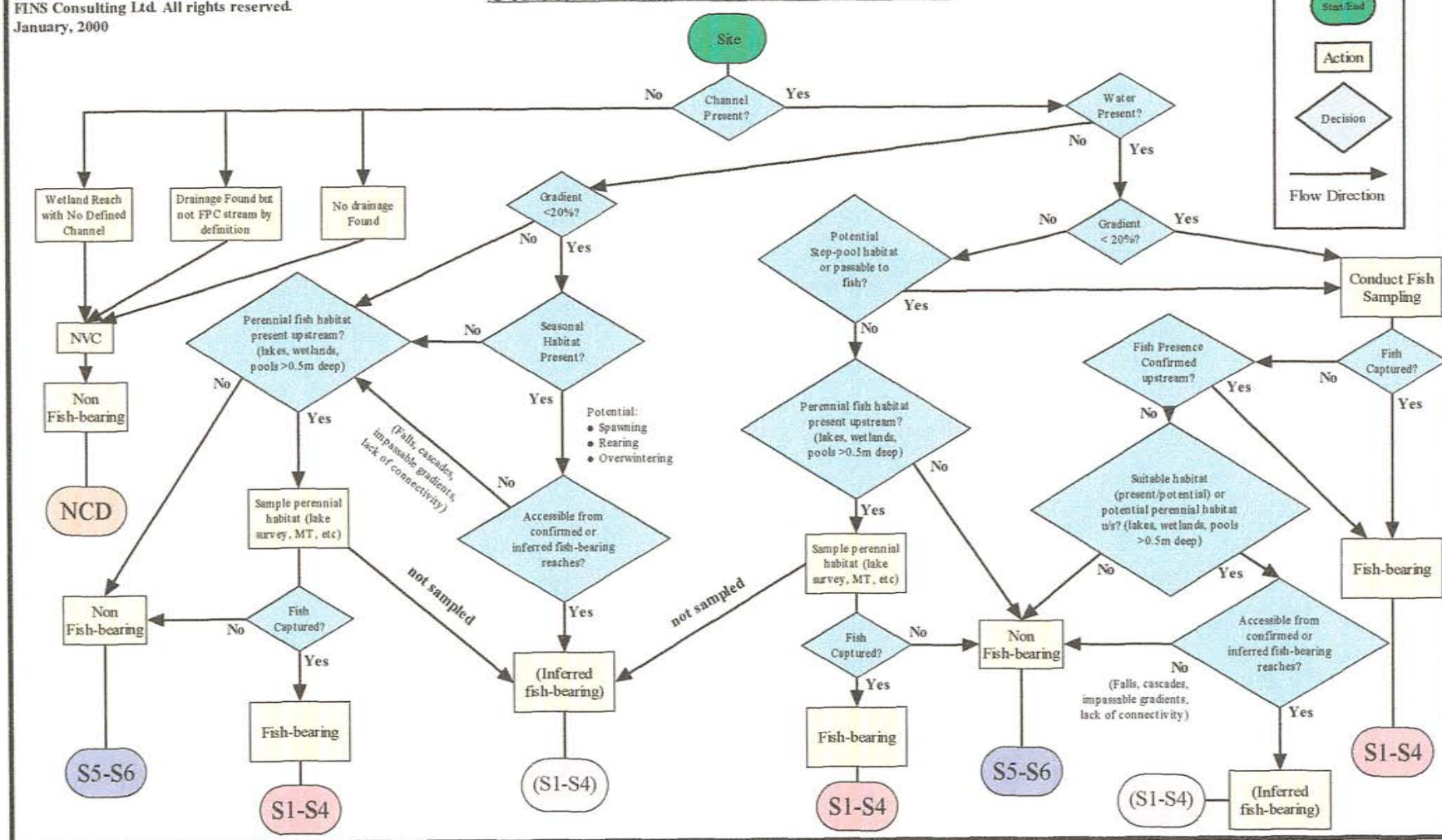


Figure 3: Flowchart of the stream classification process used in determining fish-bearing status of surveyed reaches

**Table 4: Summary of data from all surveyed reaches in the Upper Pinkut watershed**

| Stream Name | Watershed Code              | ILP   | Reach | Site | Species  | Avg CW (m) | Avg Grad (%) | Proposed FPC Class | Follow-up Sampling? | Comments                                                                    |
|-------------|-----------------------------|-------|-------|------|----------|------------|--------------|--------------------|---------------------|-----------------------------------------------------------------------------|
| Pinkut C.   | 480-927700                  |       | 10.0  | 154  | RB       | 3.8        | 2.8          | S3                 | N                   | Confirmed fish-bearing.                                                     |
| Pinkut C.   | 480-927700                  |       | 14.0  | 155  | RB       | 1.6        | 4.3          | S3                 | N                   | Confirmed fish-bearing.                                                     |
| Pinkut C.   | 480-927700                  |       | 16.0  | 156  | NFC (RB) | 2.4        | 0.7          | (S3)               | N                   | Assumed fish use - fish habitat present and potentially accessible.         |
|             |                             | 42001 | 1.0   | 157  | NS       | 0.0        | 0.0          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             | 480-927700-69200            |       | 7.0   | 158  | RB       | 15.0       | 0.0          | W5                 | N                   | Confirmed fish-bearing.                                                     |
|             | 480-927700-69200            |       | 8.0   | 159  | NFC (RB) | 1.8        | 5.3          | (S3)               | N                   | Assumed fish use - fish habitat present and potentially accessible.         |
|             | 480-927700-69200-38200      |       | 2.0   | 160  | NFC      | 2.6        | 9.3          | S6                 | N                   | Confirmed non fish-bearing                                                  |
|             | 480-927700-69200-72600      |       | 1.0   | 161  | NFC      | 0.0        | 2.5          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             |                             | 42025 | 1.0   | 162  | NS       | 0.0        | 0.0          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             | 480-927700-78100            |       | 1.0   | 163  | NFC      | 0.7        | 7.3          | (S6)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |
|             | 480-927700-78100            |       | 2.0   | 164  | NFC      | 1.0        | 3.0          | (S6)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |
|             |                             | 41006 | 2.0   | 165  | NS       | 0.0        | 30.0         | NCD*               | N                   | No stream/drainage present at mapped location.                              |
|             |                             | 41009 | 1.0   | 166  | NFC      | 0.8        | 5.3          | (S6)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |
|             | 480-927700-85400            |       | 2.0   | 167  | LKC      | 3.5        | 0.0          | (S5)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |
|             | 480-927700-85400            |       | 3.0   | 168  | NFC      | 1.1        | 7.0          | (S6)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |
|             | 480-927700-85400            |       | 5.0   | 169  | NS       | 0.0        | 0.0          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             |                             | 41013 | 2.0   | 170  | NFC      | 1.4        | 1.3          | (S6)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |
|             |                             | 41013 | 4.0   | 171  | NFC      | 1.0        | 4.0          | S6                 | N                   | Confirmed non fish-bearing                                                  |
|             | 480-927700-85400-27100      |       | 1.0   | 172  | NFC      | 1.1        | 1.7          | S6                 | N                   | Confirmed non fish-bearing                                                  |
|             |                             | 41019 | 1.0   | 173  | NS       | 0.0        | 0.0          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             |                             | 41020 | 3.0   | 174  | NFC      | 0.0        | 0.0          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             | 480-927700-85400-48400      |       | 1.0   | 175  | LKC      | 2.7        | 0.0          | S6                 | N                   | Confirmed non fish-bearing                                                  |
|             | 480-927700-85400-48400-2600 |       | 1.0   | 176  | LKC      | 2.0        | 0.5          | S6                 | N                   | Confirmed non fish-bearing                                                  |
|             |                             | 41023 | 2.0   | 177  | NS       | 0.8        | 1.5          | S6                 | N                   | Confirmed non fish-bearing                                                  |
|             |                             | 41027 | 1.0   | 178  | NFC (RB) | 1.2        | 0.7          | (S4)               | N                   | Assumed fish use - fish habitat present and potentially accessible.         |
|             |                             | 41028 | 1.0   | 179  | NS       | 0.0        | 0.0          | NCD*               | N                   | No stream/drainage present at mapped location.                              |
|             |                             | 41034 | 1.0   | 180  | NS       | 0.0        | 0.0          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             | 480-927700-90000            |       | 5.0   | 181  | RB       | 3.0        | 3.8          | S3                 | N                   | Confirmed fish-bearing.                                                     |
|             | 480-927700-90000            |       | 6.0   | 182  | RB       | 2.1        | 2.8          | S3                 | N                   | Confirmed fish-bearing.                                                     |

**Table 4: Summary of data from all surveyed reaches in the Upper Pinkut watershed**

| Stream Name | Watershed Code         | ILP   | Reach | Site | Species | Avg CW (m) | Avg Grad (%) | Proposed FPC Class | Follow-up Sampling? | Comments                                                                    |
|-------------|------------------------|-------|-------|------|---------|------------|--------------|--------------------|---------------------|-----------------------------------------------------------------------------|
|             | 480-927700-90000       |       | 11.0  | 183  | RB      | 1.9        | 3.5          | S3                 | N                   | Confirmed fish-bearing.                                                     |
|             | 480-927700-90000       |       | 19.0  | 184  | NFC     | 0.9        | 8.5          | (S6)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |
|             | 480-927700-90000-17200 |       | 1.0   | 185  | NS      | 0.0        | 0.0          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             | 480-927700-90000-31000 |       | 0.1   | 186  | NFC     | 1.2        | 0.8          | S6                 | N                   | Confirmed non fish-bearing                                                  |
|             | 480-927700-90000-31000 |       | 1.0   | 187  | NS      | 0.0        | 0.0          | NCD                | N                   | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. |
|             |                        | 41039 | 1.0   | 188  | NS      | 0.0        | 0.0          | NCD*               | N                   | No stream/drainage present at mapped location.                              |
|             | 480-927700-91300       |       | 1.0   | 189  | RB      | 1.4        | 4.0          | S4                 | N                   | Confirmed fish-bearing.                                                     |
|             |                        | 51006 | 3.0   | 190  | NFC     | 1.0        | 4.3          | (S6)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |
|             |                        | 51009 | 1.0   | 191  | NFC     | 1.0        | 1.0          | (S6)               | Y                   | Suspected fish absence (FPC species). Resample to confirm.                  |

#### 4.5.2 Non Fish-bearing Reaches

This section summarizes all sampled reaches within this project area that have been designated as non fish-bearing. This has been based on interpretations and conclusions from the synthesis of data collected during Phases I through IV of this inventory. In addition, historic fish sampling results from numerous watersheds (Babine Forest Products Co. 1997 through 2001 Reconnaissance and Operational Inventories) have also been incorporated into this section to provide comparisons between reaches with similar channel characteristics. Specifically, fish sampling results (% of reaches with fish captured) in reaches within the same size, gradient and pattern classes, as defined in FRIM. Each site has been placed into a specific gradient, channel pattern and size class (based on reach and site data) in order to compare it to the historical inventory results. This is by no means an absolute indication of fish presence, but rather a useful tool to provide a general comparison among the differing reach types. It has been used only as further supporting evidence for the non fish-bearing designation. Table 5 below summarizes this categorized information.

**Table 5: Fish sampling results for categorized reach classes (from 1997 through 2001 inventory data)**

| Reach Gradient Class | Reach Pattern Type | Reach Size Class              |                                |       |                                                    |                                |        |                                          |                                |        |
|----------------------|--------------------|-------------------------------|--------------------------------|-------|----------------------------------------------------|--------------------------------|--------|------------------------------------------|--------------------------------|--------|
|                      |                    | Small (1 <sup>st</sup> order) |                                |       | Medium (2 <sup>nd</sup> and 3 <sup>rd</sup> order) |                                |        | Large (4 <sup>th</sup> and higher order) |                                |        |
|                      |                    | Total # of Reaches            | # of Reaches with Fish Capture | %     | Total # of Reaches                                 | # of Reaches with Fish Capture | %      | Total # of Reaches                       | # of Reaches with Fish Capture | %      |
| 1<br>(≤4%)           | ST/SI/IR           | 270                           | 4                              | 1.48% | 554                                                | 127                            | 22.92% | 99                                       | 77                             | 77.78% |
|                      | IM/ME/TM           | 34                            | 3                              | 8.82% | 119                                                | 26                             | 21.85% | 24                                       | 11                             | 45.83% |
| 2<br>(>4% and ≤8%)   | ST/SI/IR           | 172                           | 1                              | 0.58% | 322                                                | 66                             | 20.50% | 29                                       | 19                             | 65.52% |
|                      | IM/ME/TM           | 8                             | 0                              | 0.00% | 2                                                  | 1                              | 50.00% | 0                                        | 0                              | 0.00%  |
| 3<br>(>8% and ≤20%)  | ST/SI/IR           | 144                           | 2                              | 1.39% | 148                                                | 20                             | 13.51% | 9                                        | 4                              | 44.44% |
|                      | IM/ME/TM           | 0                             | 0                              | 0.00% | 0                                                  | 0                              | 0.00%  | 0                                        | 0                              | 0.00%  |
| 4<br>(>20% and ≤30%) | ST/SI/IR           | 45                            | 0                              | 0.00% | 25                                                 | 0                              | 0.00%  | 1                                        | 0                              | 0.00%  |
|                      | IM/ME/TM           | 0                             | 0                              | 0.00% | 0                                                  | 0                              | 0.00%  | 0                                        | 0                              | 0.00%  |
| 5<br>(>30%)          | ST/SI/IR           | 9                             | 0                              | 0.00% | 4                                                  | 0                              | 0.00%  | 0                                        | 0                              | 0.00%  |
|                      | IM/ME/TM           | 0                             | 0                              | 0.00% | 0                                                  | 0                              | 0.00%  | 0                                        | 0                              | 0.00%  |

Sampled reaches where fish absence is suspected but not confirmed are not included in this section. They are discussed in the "Follow-up Sampling Required" section of this report.

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, when applying a non fish-bearing recommendation 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 known fish distributions and behavior, barriers, gradients, invertebrate presence, habitat quality, and

presence/absence of headwater lakes. This process is summarized in the flowchart in Figure 3 above.

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 but 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 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, 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.

Table 6 on the following pages is a summary of all surveyed reaches within this project area that have been recommended for a non fish-bearing designation. It includes relevant site-specific data, some historical information and comments that provide a brief rationale to support the interpretation. The table is simply a summary of the interpretation, and not meant to be a reiteration of the data it summarizes. This data is available in the appendices included in this report.

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. Accordingly, only those reaches that were sampled and confirmed to be non fish-bearing are included in this section.

Interpretive mapping of non fish-bearing streams mirrors this procedure, using a solid blue line to denote fish absence, both in the sampled reach and in all reaches upstream. In the case of non classified drainages, a solid green line has been used. A dashed green line on the interpretive maps denotes that no drainage was present as mapped at 1:20,000. These are still referred to as non fish bearing and all reaches upstream are coloured solid blue.

**Table 6: Summary of data from surveyed non-fish-bearing reaches in the Upper Pinkut watershed**

| Watershed Code/<br>ILP | Reach | Site | Date       | Avg CW (m) | Avg Grad (%) | Avg Wb Depth (m) | Exp FPC Spp. | FPC Class | Method | EF Dist (m) | EF Time (s) | Flow Stage | Water Temp(°C) | Conductivity (uS/cm) | Turbidity | Voltage (V) | Frequency (Hz) | Pulse Width (uS) | Gradient Class | Pattern Class | Size Class | % of reaches with fish captured | Comments                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------|-------|------|------------|------------|--------------|------------------|--------------|-----------|--------|-------------|-------------|------------|----------------|----------------------|-----------|-------------|----------------|------------------|----------------|---------------|------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 42001                  | 1.0   | 157  | 2001-09-24 | 0.0        | 0.0          | 0.00             | RB           | NCD       |        |             |             |            |                |                      |           |             |                |                  | 1              | S/S/I         | S          | 1.48                            | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. Dry, runoff/seepage. Channelized for 15m near "mouth" then wide 4-5m mucky collection pools, disconnected with no fluvium, vegetated by moss and willows.                                                                                                                                                                                  |
| 480-927700-69200-38200 | 2.0   | 160  | 2001-09-24 | 2.6        | 9.3          | 0.50             | RB           | S6        | EF     | 200         | 252         | L          | 6              | 40                   | M         | 600         | 90             | 6                | 3              | S/S/I         | S          | 1.39                            | Moderately steep and seasonal stream with poor instream cover. During spring, water rages (frequent overhanging banks). Scales of dried algae indicates seasonality. No spawning or overwintering habitat.                                                                                                                                                                                                             |
| 480-927700-69200-72600 | 1.0   | 161  | 2001-09-23 | 0.0        | 2.5          | 0.00             | RB           | NCD       | EF     | 100         | 149         |            | 9              | 110                  | C         | 500         | 80             | 6                | 2              | S/S/I         | M          | 20.5                            | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. Seepage with no continuous channel, no fluvium. Isolated mudholes filled with orange algae. Sampled isolated water puddles.                                                                                                                                                                                                                |
| 42025                  | 1.0   | 162  | 2001-09-23 | 0.0        | 0.0          | 0.00             | RB           | NCD       |        |             |             |            |                |                      |           |             |                |                  | 1              | S/S/I         | M          | 22.92                           | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. Meadow adjacent to Pinkut Creek with squishy ground and no sign of channel, fluvium etc.                                                                                                                                                                                                                                                   |
| 41006                  | 2.0   | 165  | 2001-09-19 | 0.0        | 30.0         | 0.00             | RB           | NCD*      |        |             |             |            |                |                      |           |             |                |                  | 3              | S/S/I         | S          | 1.39                            | No stream/drainage present at mapped location. Not any kind of drainage present or within 150m radius. Just forest on 25-40% slope.                                                                                                                                                                                                                                                                                    |
| 480-927700-85400       | 5.0   | 169  | 2001-09-19 | 0.0        | 0.0          | 0.00             | RB           | NCD       |        |             |             |            |                |                      |           |             |                |                  | 3              | S/S/I         | S          | 1.39                            | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. Seepage with only intermittent channel, no fluvium, no continuous banks or stream bed.                                                                                                                                                                                                                                                     |
| 41013                  | 4.0   | 171  | 2001-09-19 | 1.0        | 4.0          | 0.30             | RB           | S6        | EF     | 60          | 98          | L          | 6              | 50                   | C         | 700         | 90             | 6                | 1              | S/S/I         | M          | 22.92                           | Some good RB rearing and moderate spawning and overwintering habitat present, especially right below cascade, but still NFC in good sampling conditions. Extensive wetlands d/s likely preclude fish use. No FPC fish species captured in 11 sampled reaches in - 927700-85400 watershed. LKC present in 3 reaches, but no potential LKC habitat is isolated above barriers. LKC therefore not regionally significant. |
| 480-927700-85400-27100 | 1.0   | 172  | 2001-09-22 | 1.1        | 1.7          | 0.17             | RB           | S6        | EF     | 100         | 105         | M          | 8              | 40                   | L         | 600         | 60             | 6                | 1              | S/S/I         | S          | 1.48                            | No salmonid habitat - stream filled with orange algae, likely seasonal, flows after intense 2 day rainfall. 2-3cm deep water over algae. No FPC fish species captured in 11 sampled reaches in - 927700-85400 watershed. LKC present in 3 reaches, but no potential LKC habitat is isolated above barriers. LKC therefore not regionally significant.                                                                  |
| 41019                  | 1.0   | 173  | 2001-09-22 | 0.0        | 0.0          | 0.00             | RB           | NCD       |        |             |             |            |                |                      |           |             |                |                  | 1              | S/S/I         | S          | 1.48                            | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. Seepage - no water, no channel, no fluvium - just isolated mudholes - dry, no sign of water even after 2 days of heavy rain.                                                                                                                                                                                                               |
| 41020                  | 3.0   | 174  | 2001-09-22 | 0.0        | 0.0          | 0.00             | RB           | NCD       | EF     | 100         | 127         |            | 9              | 40                   | C         | 500         | 90             | 6                | 1              | S/S/I         | S          | 1.48                            | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. Seepage - isolated puddles of water after heavy rain. No flow, no fluvium, no channel.                                                                                                                                                                                                                                                     |

**Table 6: Summary of data from surveyed non-fish-bearing reaches in the Upper Pinkut watershed**

| Watershed Code/<br>ILP      | Reach | Site | Date       | Avg CW (m) | Avg Grad (%) | Avg Wb Depth<br>(m) | Exp FPC Spp. | FPC Class | Method | EF Dist (m) | EF Time (s) | Flow Stage | Water Temp(°C) | Conductivity<br>(uS/cm) | Turbidity | Voltage (V) | Frequency (Hz) | Pulse Width (uS) | Gradient Class | Pattern Class | Size Class | % of reaches with<br>fish captured | Comments                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|-------|------|------------|------------|--------------|---------------------|--------------|-----------|--------|-------------|-------------|------------|----------------|-------------------------|-----------|-------------|----------------|------------------|----------------|---------------|------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 480-927700-85400-48400      | 1.0   | 175  | 2001-09-22 | 2.7        | 0.0          | 0.70                | RB           | S6        | EF     | 200         | 251         | H          | 10             | 40                      | L         | 900         | 120            | 6                | 1              | S/S/I         | M          | 22.92                              | No salmonid habitat - channel filled with instream vegetation, very slow flow. Vegetation mat around 40-50cm thick in channel. No FPC fish species captured in 11 sampled reaches in -927700-85400 watershed. LKC present in 3 reaches, but no potential LKC habitat is isolated above barriers. LKC therefore not regionally significant.                                                                                    |
| 480-927700-85400-48400-2600 | 1.0   | 176  | 2001-09-22 | 2.0        | 0.5          | 0.17                | RB           | S6        | EF     | 150         | 129         | H          | 9              | 40                      | C         | 600         | 100            | 6                | 1              | S/S/I         | M          | 22.92                              | No salmonid habitat - acidic water, drains wetland, no spawning, rearing or overwintering habitat. Cyprinids not abundant in this reach either. Flows through wetland with shallow channel and no distinct banks. No FPC fish species captured in 11 sampled reaches in -927700-85400 watershed. LKC present in 3 reaches, but no potential LKC habitat is isolated above barriers. LKC therefore not regionally significant. |
| 41023                       | 2.0   | 177  | 2001-09-19 | 0.8        | 1.5          | 0.17                | RB           | S6        |        |             |             | L          |                |                         |           |             |                |                  | 1              | S/S/I         | S          | 1.48                               | No fish habitat - seasonal and inaccessible from parent stream. Channel dissipates approximately 30m u/s from lower boundary - no channel at this point. No access from parent stream. No FPC fish species captured in 11 sampled reaches in -927700-85400 watershed. LKC present in 3 reaches, but no potential LKC habitat is isolated above barriers. LKC therefore not regionally significant.                            |
| 41028                       | 1.0   | 179  | 2001-09-21 | 0.0        | 0.0          | 0.00                | RB           | NCD*      |        |             |             |            |                |                         |           |             |                |                  | 2              | S/S/I         | M          | 20.5                               | No stream/drainage present at mapped location or within 100m radius.                                                                                                                                                                                                                                                                                                                                                          |
| 41034                       | 1.0   | 180  | 2001-09-21 | 0.0        | 0.0          | 0.00                | RB           | NCD       |        |             |             |            |                |                         |           |             |                |                  | 3              | S/S/I         | M          | 13.51                              | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. Meltwater channel with no fluvium or continuity. Does not reach Pinkut Creek anyway.                                                                                                                                                                                                                                                              |
| 480-927700-90000-17200      | 1.0   | 185  | 2001-09-21 | 0.0        | 0.0          | 0.00                | RB           | NCD       |        |             |             |            |                |                         |           |             |                |                  | 1              | S/S/I         | M          | 22.92                              | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. Drains wetland - no channel in wetland. Channelized near mouth for 20m.                                                                                                                                                                                                                                                                           |
| 480-927700-90000-31000      | 0.1   | 186  | 2001-09-22 | 1.2        | 0.8          | 0.83                | RB           | S6        | EF     | 100         | 156         | H          | 7              | 40                      | C         | 600         | 80             | 6                | 1              | S/S/I         | M          | 22.92                              | No suitable rainbow trout habitat - wetland reach with stagnant water or flowing very slowly. Full of orange algae and thick detritus. Water acidic, likely depletion of oxygen in summer and winter.                                                                                                                                                                                                                         |
| 480-927700-90000-31000      | 1.0   | 187  | 2001-09-22 | 0.0        | 0.0          | 0.00                | RB           | NCD       |        |             |             |            |                |                         |           |             |                |                  | 1              | S/S/I         | M          | 22.92                              | Not an FPC stream. No fish habitat present, no connectivity to u/s reaches. No channel present in bog.                                                                                                                                                                                                                                                                                                                        |
| 41039                       | 1.0   | 188  | 2001-09-22 | 0.0        | 0.0          | 0.00                | RB           | NCD*      |        |             |             |            |                |                         |           |             |                |                  | 1              | S/S/I         | S          | 1.48                               | No stream/drainage present at mapped location. No fish habitat - no drainage, no connection to parent stream.                                                                                                                                                                                                                                                                                                                 |

### 4.5.3 Follow-up Sampling Required

Table 7 below summarizes the need for follow-up sampling in sampled reaches where fish absence is suspected (i.e., marginal fish habitat at any time of year or habitat is isolated by an obstruction with insufficient sampling to confirm a non fish-bearing status). It is anticipated that follow-up sampling in these circumstances will result in a confirmation of fish absence. It also identifies where follow-up sampling could be conducted that would provide important additional fish distribution information. All suspected non fish-bearing reaches have been identified with a dashed blue line on the interpretive maps.

The table does not include sampled reaches where fish use is likely (i.e., fish habitat available or potentially available and easily accessible from confirmed or inferred fish-bearing reaches) and presence has been inferred. It is expected that further sampling in these situations would not affect fish-bearing status. These reaches are assumed to be fish-bearing and are displayed on the interpretive maps with a dashed red line.

**Table 7: Follow-up sampling required for confirmation of fish-bearing status for the Upper Pinkut watershed**

| Watershed Code   | ILP   | Reach | Site | Timing | Method | Comments                                                                                                                                                       |
|------------------|-------|-------|------|--------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 480-927700-78100 |       | 1.0   | 163  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |
| 480-927700-78100 |       | 2.0   | 164  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |
|                  | 41009 | 1.0   | 166  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |
| 480-927700-85400 |       | 2.0   | 167  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |
| 480-927700-85400 |       | 3.0   | 168  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |
|                  | 41013 | 2.0   | 170  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |
| 480-927700-90000 |       | 19.0  | 184  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |
|                  | 51006 | 3.0   | 190  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |
|                  | 51009 | 1.0   | 191  | July   | EF     | Determine extent of fish use (if any) in this watershed and confirm FPC classification in this reach. Suspect fish absence (FPC species). Resample to confirm. |

## 5. Bibliography

FINS. 2002. 2001 Operational Stream Inventory 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. (Source #3 on Interpretive Maps)

FINS. 2001. 2000 Operational Stream Inventory 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. 19pp + 3 Apps. + Attachments. (Source #2 on Interpretive Maps)

FINS. 2001. Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Project Planning Document. Prepared for Babine Forest Products Co. by FINS Consulting Ltd., Terrace, B.C. August, 2001. B.C. Min. of Environment, Smithers, B.C.

Fisheries Information Summary System (FISS), 2001. Mapsheets 93 K/5, 93 K/12.

MELP. 1995. B.C. Lakes Database. B.C. Min. of Environment - Fisheries Headquarters, Victoria, B.C.

MELP: Resource Analysis Branch. Aquatic Biophysical Maps - B.C. Min. of Environment, Victoria, B.C.

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.

Wildstone, 1997. Fish Inventory and Stream Classification, 1997. Upper Pinkut Creek Tributaries. Prepared for Ministry of Forests, Lakes Forest District, Burns Lake, B.C. by Wildstone Resources Ltd., Penticton, B.C. B.C. Min. of Environment, Smithers, B.C. (Source #7 on Interpretive Maps)

## **6. Appendices**

**Appendix I: FDIS Reach/Site Summaries**

**Appendix II: Photographs**

**Appendix III: Hardcopy Maps**

**Appendix IV: Phase Completion Reports (Ministry submission only)**

**Appendix V: QA Reports (Ministry submission only)**

**Reconnaissance (1:20,000) Fish and Fish Habitat  
Inventory**

**Upper Pinkut Creek Watershed  
2001/02**

- **Appendix I: FDIS Reach/Site Summaries**

# FDIS Reach/Site Summary Key Sheet

## BFP FFHI 2001 - Upper Pinkut Watershed

### Disturbance Indicators Key

|                         |                                    |                                 |                                |
|-------------------------|------------------------------------|---------------------------------|--------------------------------|
| O1 - Beaver dams        | D2 - Large woody debris            | C4 - Multiple channel or braids | S4 - Extensive bars            |
| B1 - Abandoned channels | D3 - Recently formed LWD jams      | C5 - Disturbed stone lines      | S5 - Extensively scoured zones |
| B2 - Eroding banks      | C1 - Extensive riffles or cascades | S1 - Homogeneous bed texture    |                                |
| B3 - Avulsions          | C2 - Minimal pool area             | S2 - Sediment fingers           |                                |
| D1 - Small woody debris | C3 - Elevated mid channel bard     | S3 - Sediment wedges            |                                |

### Cover Key (Type)

|                             |
|-----------------------------|
| SWD - Small woody debris    |
| LWD - Large woody debris    |
| B - Boulders                |
| U - Undercut                |
| DP - Deep pools             |
| OV - Overhanging vegetation |
| IV - Instream vegetation    |

FSZ - Fisheries Sensitive Zone

### Cover Key (Amount)

|                    |
|--------------------|
| D - Dominant       |
| N - None           |
| NS - Not Specified |
| S - Sub-dominant   |
| T - Trace          |

### Cover Key (Location)

|                 |
|-----------------|
| P - Primary     |
| S - Secondary   |
| O - Off channel |

### Fish Capture Method Key

|                    |                      |                            |
|--------------------|----------------------|----------------------------|
| AG - Angling       | EF - Electrofishing  | SW - Swimming / snorkeling |
| AR - Angler report | GN - Gill netting    | TN - Trap net              |
| CR - Creel census  | MT - Minnow trapping | UN - Unknown Method        |
| DC - Dead capture  | SN - Seining         | VO - Visual Observation    |
| DN - Dip netting   |                      |                            |

### Fish Species Key

|       |                                      |       |                                      |       |                                         |
|-------|--------------------------------------|-------|--------------------------------------|-------|-----------------------------------------|
| ABT   | Anadromous Bull Trout                | CT/RB | Fish are either RB or BT, suspect CT | RB/CT | Fish are either RB or CT, suspect RB    |
| AC    | Arctic Char                          | DV    | Dolly Varden                         | RDC   | Northern Redbelly Dace                  |
| ACT   | Cutthroat Trout (Anadromous)         | DV/BT | Fish are either DV or BT, suspect DV | RL    | River Lamprey                           |
| ADV   | Dolly Varden (Anadromous)            | DVxBT | Verified DV BT hybrid                | RSC   | Redside Shiner                          |
| AEB   | Brook Trout (Anadromous)             | EB    | Brook Trout                          | RSM   | Rainbow Smelt                           |
| AGB   | Brown Trout (Anadromous)             | ESC   | Emerald Shiner                       | RW    | Round Whitefish                         |
| AL    | Arctic Lamprey                       | EU    | Eulachon                             | SB1   | Balkwill Lake Benthic Stickleback       |
| AS    | Atlantic Salmon                      | FDC   | Finescale Dace                       | SB12  | Paxton Lake Benthic Stickleback         |
| ASM   | Arctic Smelt                         | FHC   | Fathead Chub                         | SB13  | Paxton Lake Limnetic Stickleback        |
| BB    | Burbot                               | FM    | Fathead Minnow                       | SB2   | Balkwill Lake Limnetic Stickleback      |
| BCB   | Black Crappie                        | GAM   | Mosquitofish                         | SB3   | Charlotte Unarmoured Stickleback        |
| BKH   | Black Bullhead                       | GB    | Brown Trout                          | SB4   | Emily Lake Benthic Stickleback          |
| BL    | Western Brook Lamprey                | GC    | Goldfish                             | SB5   | Emily Lake Limnetic Stickleback         |
| BMC   | Brassy Minnow                        | GE    | Goideye                              | SB6   | Enos Lake Benthic Stickleback           |
| BNH   | Brown Bullhead                       | GPW   | Giant Pygmy Whitefish                | SB7   | Enos Lake Limnetic Stickleback          |
| BSB   | Brook Stickleback                    | GR    | Arctic Grayling                      | SB8   | Giant Stickleback                       |
| BSU   | Bridgelip Sucker                     | GSG   | Green Sturgeon                       | SBB   | Priest Lake Benthic Stickleback         |
| BT    | Bull Trout                           | GT    | Golden Trout                         | SBP   | Priest Lake Limnetic Stickleback        |
| BT/DV | Fish are either DV or BT, suspect BT | IN    | Inconnu                              | SDC   | Speckled Dace                           |
| BW    | Broad Whitefish                      | KO    | Kokanee                              | SFL   | Starry Flounder                         |
| CA    | Arctic Cisco                         | LDC   | Leopard Dace                         | SH    | American Shad                           |
| CAL   | Aleutian Sculpin                     | LKC   | Lake Chub                            | SK    | Sockeye Salmon                          |
| CAS   | Prickly Sculpin                      | LL    | Lake Lamprey                         | SMB   | Smallmouth Bass                         |
| CB    | Bering Cisco                         | LMB   | Largemouth Bass                      | SP    | Unidentified Species                    |
| CBA   | Mottled Sculpin                      | LNC   | Longnose Dace                        | SPK   | Splake                                  |
| CCA   | Sharpnose Sculpin                    | LSM   | Longfin Smelt                        | SQ    | Squanga Whitefish                       |
| CCG   | Slimy Sculpin                        | LSU   | Longnose Sucker                      | SSM   | Surf Smelt                              |
| CCL   | Cultus Lake Sculpin                  | LT    | Lake Trout                           | SST   | Steelhead (Summer-run)                  |
| CCN   | Shorthead Sculpin                    | LW    | Lake Whitefish                       | SSU   | Salish Sucker                           |
| CCT   | Coastal Cutthroat Trout              | MSU   | Northern Mountain Sucker             | ST    | Steelhead                               |
| CH    | Chinook Salmon                       | MW    | Mountain Whitefish                   | STC   | Spottail Shiner                         |
| CL    | Lake Cisco                           | NDC   | Nooksack Dace                        | TC    | Tench                                   |
| CLA   | Staghorn Sculpin                     | NFC   | No Fish Caught                       | TP    | Troutperch                              |
| CM    | Chum Salmon                          | NP    | Northern Pike                        | TR    | Unidentifiable Trout - only fry <70mm   |
| CMC   | Chiselmouth Chub                     | NSB   | Ninespine Stickleback                | TSB   | Threespine Stickleback                  |
| CMT   | Deepwater Sculpin                    | NSC   | Northern Pikeminnow                  | UDC   | Umatilla Dace                           |
| CO    | Coho Salmon                          | PCC   | Pearmouth Chub                       | WCT   | Westslope (Yellowstone) Cutthroat Trout |
| COM   | Tidepool Sculpin                     | PDC   | Northern Pearl Dace                  | WP    | Walleye                                 |
| CP    | Carp                                 | PK    | Pink Salmon                          | WSG   | White Sturgeon                          |
| CRH   | Torrent Sculpin                      | PL    | Pacific Lamprey                      | WST   | Steelhead (Winter-run)                  |
| CRI   | Spoonhead Sculpin                    | PLS   | Pygmy Longfin Smelt                  | WSU   | White Sucker                            |
| CS    | Least Cisco                          | PMB   | Pumpkinseed                          | XDC   | Northern Redbelly Dace Finescale Dace   |
| CSU   | Largescale Sucker                    | PW    | Pygmy Whitefish                      | YP    | Yellow Perch                            |
| CT    | Cutthroat Trout                      | RB    | Rainbow Trout                        |       |                                         |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-00000-00000-0000-000-000-000-000-000-000

10.0

## STREAM REFERENCING

Gazetted Name: PINKUT CREEK

Local Name:

Watershed Code: 480-927700-00000-00000-0000-000-000-000-000-000-000

ILP Map #:

ILP #:

## REACH

Reach #: 10.0

UTM(Zone/East/North): 10.309945.6043395

Sample Type: Biased

Length (km): 3.21

Coupling: Partially Coupl

Magnitude: 11

BGC Zone: ESSF

Gradient (%): 2.6

Confinement: Frequently Confin

Order: 3

Open water: Not Specified

US Elev (m): 1164

Islands: None Visible

Riparian Vegetation: Coniferous

Bars: None ☐ Side ☒ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ Landuse: None/natural

## SITE

Site #: 154

Field UTM 10.312468.6042108

Agency: C016

Crew: MJ/MG

Date: 2001-09-21

Site Length (m): 100

GIS UTM..

Agency Name: FINS Consulting Ltd.

## CHANNEL

No Vis.Ch.: ☐ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐

Med ☒

High ☐

Temp (C): 7

pH: 7.3

Conductivity: 60

|                     | Avg  | Min   | Max | # |
|---------------------|------|-------|-----|---|
| Channel Width (m):  | 3.78 | 3.200 | 4.6 | 6 |
| Wetted Width (m):   | 2.58 | 1.8   | 3.1 | 6 |
| Bankfull Depth (m): | 0.40 | 0.3   | 0.5 | 3 |

|                 | Avg  | Min   | Max  | # |
|-----------------|------|-------|------|---|
| Gradient %:     | 2.75 | 2     | 4    | 4 |
| Pool Depth (m): | 0.49 | 0.330 | 0.63 | 5 |

Turbidity.: Turbid ☐ Low ☐  
Moderate ☐ Clear ☒

## MORPHOLOGY

Bed Material: Dominant: Gravels

D95 (cm): 16.00

Bars: Non ☐ Side ☒ Diagonal ☒ Mid-channel ☐ Span ☐

Subdominant: Cobble

D (cm): 6.00

Braid ☐

Channel Pattern: Irregular, Wandering

Islands: Occasional

DISTURBANCE

O1 B1 B2 B3 D1 D2 D3

Coupling: Partially Coupled

Confinement: Occasionally Confine

C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

Morphology: RP Riffle Pool

## COVER

Total Cover: Abundant

LWD: Few

LWD Dist: Evenly Distributed

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

FSZ: ☐

Right Bank: Shape: Sloping (

Texture: Fines ☒ Gravel ☒ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Crown Closure

Left Bank: Shape: Undercut

Texture: Fines ☒ Gravel ☒ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

1-20%

Right Bank: Rip.Veg: Shrubs

Stage: Not Applicable

Left Bank: Rip.Veg:

Stage: Not Applicable

Instream Veg: None ☐ Algae ☐ Moss ☒ Vascular ☐

## FISH

| Site Number | Capture Method | Number of Events | Length fished (m) | Total Time | Voltage | Species | Total Fish | Minimum Length (mm) | Maximum Length (mm) |
|-------------|----------------|------------------|-------------------|------------|---------|---------|------------|---------------------|---------------------|
| 154         | EF             | 1                | 100               | 168 sec    | 700     | RB      | 5          | 52                  | 138                 |

Roll# 2, Frame# 1, CD# 1, Image# 26, Direction: U, SCALE/COMMENT: Mac

Roll# 2, Frame# 2, CD# 1, Image# 27, Direction: D, SCALE/COMMENT: Mac

SITE CARD: site=UTM

MORPHOLOGY: Flows through 15-40m wide valley, sparsely forested by conifers.

OTHER HABITAT: Many deep pools suitable for holding and overwintering habitat. Gravels are uniform in pool crests and channel sides.

COVER: Excellent rainbow trout habitat in overall diverse and abundant cover. Pools every 10-15m, many LWD-dependant.

**BFP FFHI 2001 - Upper Pinkut Watershed**

14.0

Watershed Code: 480-927700-00000-00000-00000-00000-000-000-000-000-000-000

|                                                                            |                                 |
|----------------------------------------------------------------------------|---------------------------------|
| <b>Gazetted Name:</b> PINKUT CREEK                                         | <b>Local Name:</b>              |
| <b>Watershed Code:</b> 480-927700-00000-00000-0000-000-000-000-000-000-000 | <b>ILP Map #:</b> <b>ILP #:</b> |

Reach #: 14.0      UTM(Zone/East/North): 10.306948.6044396      Sample Type: Biased  
 Length (km): 1.52      Coupling: Coupled      Magnitude: 6      BGC Zone: ESSF  
 Gradient (%): 3.9      Confinement: Frequently Confin      Order: 3      Open water: Present  
 US Elev (m): 1265      Islands: None Visible      Riparian Vegetation: Coniferous  
 Bars: None ☒ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ Landuse: None/natural

|                      |                             |                                   |             |                  |
|----------------------|-----------------------------|-----------------------------------|-------------|------------------|
| Site #: 155          | Field UTM 10.307201.6044279 | Agency: C016                      | Crew: MJ/MG | Date: 2001-09-23 |
| Site Length (m): 300 | GIS UTM...                  | Agency Name: FINS Consulting Ltd. |             |                  |

|                                      |                                          |             |                     |      |     |     |                  |  |                                                                         |      |                                                                             |      |   |
|--------------------------------------|------------------------------------------|-------------|---------------------|------|-----|-----|------------------|--|-------------------------------------------------------------------------|------|-----------------------------------------------------------------------------|------|---|
| No Vis.Ch.: <input type="checkbox"/> | Intermittent: <input type="checkbox"/>   |             | Avg                 | Min  | Max | #   |                  |  | Avg                                                                     | Min  | Max                                                                         | #    |   |
| Dewatered: <input type="checkbox"/>  | Tribs.: <input type="checkbox"/>         |             |                     |      |     |     |                  |  |                                                                         |      |                                                                             |      |   |
| Stage:                               | Low <input type="checkbox"/>             |             | Channel Width (m):  | 1.65 | 1.4 | 1.9 | 6                |  | Gradient %:                                                             | 4.25 | 3                                                                           | 5    | 4 |
|                                      | Med <input type="checkbox"/>             |             | Wetted Width (m):   | 1.65 | 1.4 | 1.9 | 6                |  | Pool Depth (m):                                                         | 0.55 | 0.310                                                                       | 0.83 | 6 |
|                                      | High <input checked="" type="checkbox"/> |             | Bankfull Depth (m): | 0.53 | 0.5 | 0.6 | 3                |  |                                                                         |      |                                                                             |      |   |
|                                      |                                          | Temp (C): 8 | pH: 5.9             |      |     |     | Conductivity: 60 |  | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/> |      | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |      |   |

[illegible]

|                          |                 |                                                                                                                                                                  |                                     |                          |                                     |                                     |                                     |                                     |                          |                                     |                          |         |                          |               |
|--------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|---------|--------------------------|---------------|
| Total Cover: Abundant    |                 | Type:                                                                                                                                                            | SWD                                 | LWD                      | B                                   | U                                   | DP                                  | OV                                  | IV                       |                                     |                          |         |                          |               |
| LWD: None                |                 | Amount:                                                                                                                                                          | T                                   | N                        | T                                   | S                                   | D                                   | T                                   | T                        |                                     |                          |         |                          |               |
| LWD Dist: Not Applicable |                 | Location: P/S/O:                                                                                                                                                 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                          |         |                          |               |
| Right Bank:              | Shape: Undercut | Texture: Fines                                                                                                                                                   | <input checked="" type="checkbox"/> | Gravel                   | <input checked="" type="checkbox"/> | Cobble                              | <input checked="" type="checkbox"/> | Boulder                             | <input type="checkbox"/> | Rock                                | <input type="checkbox"/> | Manmade | <input type="checkbox"/> | Crown Closure |
| Left Bank:               | Shape: Undercut | Texture: Fines                                                                                                                                                   | <input checked="" type="checkbox"/> | Gravel                   | <input checked="" type="checkbox"/> | Cobble                              | <input checked="" type="checkbox"/> | Boulder                             | <input type="checkbox"/> | Rock                                | <input type="checkbox"/> | Manmade | <input type="checkbox"/> | 71-90%        |
| Right Bank:              | Rip.Veg: Shrubs | Stage: Not Applicable                                                                                                                                            |                                     |                          |                                     |                                     |                                     |                                     |                          |                                     |                          |         |                          |               |
| Left Bank:               | Rip.Veg:        | Stage: Not Applicable                                                                                                                                            |                                     |                          |                                     |                                     |                                     |                                     |                          |                                     |                          |         |                          |               |
|                          |                 | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input checked="" type="checkbox"/> |                                     |                          |                                     |                                     |                                     |                                     |                          |                                     |                          |         |                          |               |

| Site Number | Capture Method | Number of Events | Length fished (m) | Total Time | Voltage | Species | Total Fish | Minimum Length (mm) | Maximum Length (mm) |
|-------------|----------------|------------------|-------------------|------------|---------|---------|------------|---------------------|---------------------|
| 155         | EF             | 1                | 300               | 676 sec    | 800     | RB      | 2          | 58                  | 153                 |

WATER: pH accurate?

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-00000-00000-0000-000-000-000-000-000

16.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------|-------------------|-----------------------------------------------|-------------|--------------------------------------------|------------|-------------------------------------------|---------------------|
| Gazetted Name: PINKUT CREEK                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                    |                   |                                               | Local Name: |                                            |            |                                           |                     |
| Watershed Code: 480-927700-00000-00000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   |                                               | ILP Map #:  |                                            | ILP #:     |                                           |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |
| Reach #: 16.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | UTM(Zone/East/North): 10.306353.6045501            |                   |                                               |             | Sample Type: Random                        |            |                                           |                     |
| Length (km): .65                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Coupling: Decoupled                                |                   | Magnitude: 2                                  |             | BGC Zone: ESSF                             |            |                                           |                     |
| Gradient (%): 1.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Confinement: Unconfined                            |                   | Order: 2                                      |             | Open water: Present                        |            |                                           |                     |
| US Elev (m): 1283                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Islands: Frequent                                  |                   | Riparian Vegetation: Wetland                  |             |                                            |            |                                           |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                    |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |
| Site #: 156                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Field UTM 10.306461.6045022                        |                   | Agency: C016                                  |             | Crew: MJ/MG                                |            | Date: 2001-09-23                          |                     |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | GIS UTM..                                          |                   | Agency Name: FINS Consulting Ltd.             |             |                                            |            |                                           |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Intermittent: <input type="checkbox"/>             |                   | Avg                                           |             | Min                                        |            | Max                                       |                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | Tribes.: <input type="checkbox"/>                  |                   | Channel Width (m): 2.42                       |             | 1.600                                      |            | 3.3                                       |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                    |                   | Wetted Width (m): 2.42                        |             | 1.600                                      |            | 3.3                                       |                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                    |                   | Bankfull Depth (m): 0.90                      |             | 0.8                                        |            | 1                                         |                     |
| High <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Temp (C): 8                                        |                   | pH: 5.9                                       |             | Conductivity: 60                           |            |                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   |                                               |             | Turbidity: Turbid <input type="checkbox"/> |            | Low <input type="checkbox"/>              |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   |                                               |             | Moderate <input type="checkbox"/>          |            | Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | D95 (cm): 0.01                                     |                   | Bars: Non <input checked="" type="checkbox"/> |             | Side <input type="checkbox"/>              |            | Diagonal <input type="checkbox"/>         |                     |
| Subdominant: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | D (cm): 0.01                                       |                   |                                               |             | Mid-channel <input type="checkbox"/>       |            | Span <input type="checkbox"/>             |                     |
| Channel Pattern: Regular Meanders                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Islands: Frequent                                  |                   | DISTURBANCE                                   |             | O1                                         |            | B1                                        |                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                    |                   | INDICATORS                                    |             | <input checked="" type="checkbox"/>        |            | <input type="checkbox"/>                  |                     |
| Confinement: Unconfined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                    |                   | C1                                            |             | C2                                         |            | C3                                        |                     |
| Morphology: LC Large Channel                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                    |                   | <input type="checkbox"/>                      |             | <input type="checkbox"/>                   |            | <input type="checkbox"/>                  |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | C4                                            |             | C5                                         |            | S1                                        |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | <input checked="" type="checkbox"/>           |             | <input type="checkbox"/>                   |            | <input type="checkbox"/>                  |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | S2                                            |             | S3                                         |            | S4                                        |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | <input type="checkbox"/>                      |             | <input type="checkbox"/>                   |            | <input type="checkbox"/>                  |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | S5                                            |             | <input type="checkbox"/>                   |            | <input type="checkbox"/>                  |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | <input type="checkbox"/>                      |             | <input type="checkbox"/>                   |            | <input type="checkbox"/>                  |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Type: SWD                                          |                   | LWD                                           |             | B                                          |            | U                                         |                     |
| LWD: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Amount: T                                          |                   | N                                             |             | N                                          |            | D                                         |                     |
| LWD Dist: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Location: P/S/O:                                   |                   | <input checked="" type="checkbox"/>           |             | <input type="checkbox"/>                   |            | <input type="checkbox"/>                  |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | <input type="checkbox"/>                      |             | <input type="checkbox"/>                   |            | <input type="checkbox"/>                  |                     |
| Right Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input type="checkbox"/>               |             | Cobble <input type="checkbox"/>            |            | Boulder <input type="checkbox"/>          |                     |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input type="checkbox"/>               |             | Cobble <input type="checkbox"/>            |            | Boulder <input type="checkbox"/>          |                     |
| Right Bank: Rip.Veg: Wetland                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Stage: Not Applicable                              |                   | Rock <input type="checkbox"/>                 |             | Manmade <input type="checkbox"/>           |            | Crown Closure                             |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | Stage: Not Applicable                              |                   | Instream Veg: None <input type="checkbox"/>   |             | Algae <input checked="" type="checkbox"/>  |            | Moss <input type="checkbox"/>             |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | Vascular <input checked="" type="checkbox"/>  |             |                                            |            | 1-20%                                     |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Capture Method | Number of Events                                   | Length fished (m) | Total Time                                    | Voltage     | Species                                    | Total Fish | Minimum Length (mm)                       | Maximum Length (mm) |
| 156                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | EF             | 1                                                  | 150               | 114 sec                                       | 800         | NFC                                        | 0          |                                           |                     |
| <p>Roll# 4 , Frame# 19 , CD# 1 , Image# 92 , Direction: D , SCALE/COMMENT: mg</p> <p>Roll# 4 , Frame# 20 , CD# 1 , Image# 93 , Direction: U , SCALE/COMMENT: mg</p> <p>SITE CARD: site=UTM</p> <p>MORPHOLOGY: Flows through sub-alpine meadow in deep incised channel.</p> <p>WATERBODY: Electrofishing not very effective in this deep channel.</p> <p>OTHER HABITAT: Excellent CT rearing habitat and overwintering habitat. No spawning - all fines. Only graveled in 1-2m sections at BD outlets.</p> |                |                                                    |                   |                                               |             |                                            |            |                                           |                     |

# FDIS Reach/Site Summary

## BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # 1.0 ILP Map # 093K.042 ILP # 42001

| STREAM REFERENCING                                                                                                                                                                                                                     |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|--|------------------------------------|---------------------|-------------------------------------------------------------------------|--------------|-----------------------------------|--|
| Gazetted Name:                                                                                                                                                                                                                         |  |                                          |  |                                    | Local Name:         |                                                                         |              |                                   |  |
| Watershed Code: 000-000000-00000-00000-0000-000-000-000-000                                                                                                                                                                            |  |                                          |  |                                    | ILP Map #: 093K.042 |                                                                         | ILP #: 42001 |                                   |  |
| REACH                                                                                                                                                                                                                                  |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
| Reach #: 1.0                                                                                                                                                                                                                           |  | UTM (Zone/East/North): 10.324980.6034605 |  |                                    |                     | Sample Type: Biased                                                     |              |                                   |  |
| Length (km): .79                                                                                                                                                                                                                       |  | Coupling: Decoupled                      |  | Magnitude: 1                       |                     | BGC Zone: SBS                                                           |              |                                   |  |
| Gradient (%): 2.9                                                                                                                                                                                                                      |  | Confinement: Unconfined                  |  | Order: 1                           |                     | Open water: Absent                                                      |              |                                   |  |
| US Elev (m): 938                                                                                                                                                                                                                       |  | Islands: NONE                            |  | Riparian Vegetation: Coniferous    |                     |                                                                         |              |                                   |  |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
| SITE                                                                                                                                                                                                                                   |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
| Site #: 157                                                                                                                                                                                                                            |  | Field UTM 10.352682.6034518              |  | Agency: C016                       |                     | Crew: MJ/MG                                                             |              | Date: 2001-09-24                  |  |
| Site Length (m): 100                                                                                                                                                                                                                   |  | GIS UTM..                                |  | Agency Name: FINS Consulting Ltd.  |                     |                                                                         |              |                                   |  |
| CHANNEL                                                                                                                                                                                                                                |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
| No Vis.Ch.: <input checked="" type="checkbox"/>                                                                                                                                                                                        |  | Intermittent: <input type="checkbox"/>   |  |                                    |                     |                                                                         |              |                                   |  |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                    |  | Trib.: <input type="checkbox"/>          |  |                                    |                     |                                                                         |              |                                   |  |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                    |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
| Med <input type="checkbox"/>                                                                                                                                                                                                           |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
| High <input type="checkbox"/>                                                                                                                                                                                                          |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
| Temp (C):                                                                                                                                                                                                                              |  | pH:                                      |  | Conductivity:                      |                     | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/> |              |                                   |  |
|                                                                                                                                                                                                                                        |  |                                          |  |                                    |                     | Moderate <input type="checkbox"/> Clear <input type="checkbox"/>        |              |                                   |  |
| MORPHOLOGY                                                                                                                                                                                                                             |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |
| Bed Material: Dominant:                                                                                                                                                                                                                |  | D95 (cm):                                |  | Bars: Non <input type="checkbox"/> |                     | Side <input type="checkbox"/>                                           |              | Diagonal <input type="checkbox"/> |  |
| Subdominant:                                                                                                                                                                                                                           |  | D (cm):                                  |  |                                    |                     | Mid-channel <input type="checkbox"/>                                    |              | Span <input type="checkbox"/>     |  |
| Channel Pattern:                                                                                                                                                                                                                       |  | Islands:                                 |  | DISTURBANCE                        |                     | O1                                                                      |              | B1                                |  |
| Coupling:                                                                                                                                                                                                                              |  |                                          |  | INDICATORS                         |                     | B2                                                                      |              | B3                                |  |
| Confinement:                                                                                                                                                                                                                           |  |                                          |  | C1                                 |                     | C2                                                                      |              | C3                                |  |
| Morphology:                                                                                                                                                                                                                            |  |                                          |  | C4                                 |                     | C5                                                                      |              | S1                                |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C6                                 |                     | S2                                                                      |              | S3                                |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C7                                 |                     | S4                                                                      |              | S5                                |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C8                                 |                     | S6                                                                      |              | S7                                |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C9                                 |                     | S8                                                                      |              | S9                                |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C10                                |                     | S10                                                                     |              | S11                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C11                                |                     | S12                                                                     |              | S13                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C12                                |                     | S14                                                                     |              | S15                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C13                                |                     | S16                                                                     |              | S17                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C14                                |                     | S18                                                                     |              | S19                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C15                                |                     | S20                                                                     |              | S21                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C16                                |                     | S22                                                                     |              | S23                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C17                                |                     | S24                                                                     |              | S25                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C18                                |                     | S26                                                                     |              | S27                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C19                                |                     | S28                                                                     |              | S29                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C20                                |                     | S30                                                                     |              | S31                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C21                                |                     | S32                                                                     |              | S33                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C22                                |                     | S34                                                                     |              | S35                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C23                                |                     | S36                                                                     |              | S37                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C24                                |                     | S38                                                                     |              | S39                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C25                                |                     | S40                                                                     |              | S41                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C26                                |                     | S42                                                                     |              | S43                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C27                                |                     | S44                                                                     |              | S45                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C28                                |                     | S46                                                                     |              | S47                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C29                                |                     | S48                                                                     |              | S49                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C30                                |                     | S50                                                                     |              | S51                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C31                                |                     | S52                                                                     |              | S53                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C32                                |                     | S54                                                                     |              | S55                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C33                                |                     | S56                                                                     |              | S57                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C34                                |                     | S58                                                                     |              | S59                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C35                                |                     | S60                                                                     |              | S61                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C36                                |                     | S62                                                                     |              | S63                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C37                                |                     | S64                                                                     |              | S65                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C38                                |                     | S66                                                                     |              | S67                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C39                                |                     | S68                                                                     |              | S69                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C40                                |                     | S70                                                                     |              | S71                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C41                                |                     | S72                                                                     |              | S73                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C42                                |                     | S74                                                                     |              | S75                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C43                                |                     | S76                                                                     |              | S77                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C44                                |                     | S78                                                                     |              | S79                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C45                                |                     | S80                                                                     |              | S81                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C46                                |                     | S82                                                                     |              | S83                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C47                                |                     | S84                                                                     |              | S85                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C48                                |                     | S86                                                                     |              | S87                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C49                                |                     | S88                                                                     |              | S89                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C50                                |                     | S90                                                                     |              | S91                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C51                                |                     | S92                                                                     |              | S93                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C52                                |                     | S94                                                                     |              | S95                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C53                                |                     | S96                                                                     |              | S97                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C54                                |                     | S98                                                                     |              | S99                               |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C55                                |                     | S100                                                                    |              | S101                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C56                                |                     | S102                                                                    |              | S103                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C57                                |                     | S104                                                                    |              | S105                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C58                                |                     | S106                                                                    |              | S107                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C59                                |                     | S108                                                                    |              | S109                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C60                                |                     | S110                                                                    |              | S111                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C61                                |                     | S112                                                                    |              | S113                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C62                                |                     | S114                                                                    |              | S115                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C63                                |                     | S116                                                                    |              | S117                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C64                                |                     | S118                                                                    |              | S119                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C65                                |                     | S120                                                                    |              | S121                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C66                                |                     | S122                                                                    |              | S123                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C67                                |                     | S124                                                                    |              | S125                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C68                                |                     | S126                                                                    |              | S127                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C69                                |                     | S128                                                                    |              | S129                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C70                                |                     | S130                                                                    |              | S131                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C71                                |                     | S132                                                                    |              | S133                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C72                                |                     | S134                                                                    |              | S135                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C73                                |                     | S136                                                                    |              | S137                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C74                                |                     | S138                                                                    |              | S139                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C75                                |                     | S140                                                                    |              | S141                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C76                                |                     | S142                                                                    |              | S143                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C77                                |                     | S144                                                                    |              | S145                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C78                                |                     | S146                                                                    |              | S147                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C79                                |                     | S148                                                                    |              | S149                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C80                                |                     | S150                                                                    |              | S151                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C81                                |                     | S152                                                                    |              | S153                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C82                                |                     | S154                                                                    |              | S155                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C83                                |                     | S156                                                                    |              | S157                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C84                                |                     | S158                                                                    |              | S159                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C85                                |                     | S160                                                                    |              | S161                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C86                                |                     | S162                                                                    |              | S163                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C87                                |                     | S164                                                                    |              | S165                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C88                                |                     | S166                                                                    |              | S167                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C89                                |                     | S168                                                                    |              | S169                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C90                                |                     | S170                                                                    |              | S171                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C91                                |                     | S172                                                                    |              | S173                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C92                                |                     | S174                                                                    |              | S175                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C93                                |                     | S176                                                                    |              | S177                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C94                                |                     | S178                                                                    |              | S179                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C95                                |                     | S180                                                                    |              | S181                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C96                                |                     | S182                                                                    |              | S183                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C97                                |                     | S184                                                                    |              | S185                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C98                                |                     | S186                                                                    |              | S187                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C99                                |                     | S188                                                                    |              | S189                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C100                               |                     | S190                                                                    |              | S191                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C101                               |                     | S192                                                                    |              | S193                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C102                               |                     | S194                                                                    |              | S195                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C103                               |                     | S196                                                                    |              | S197                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C104                               |                     | S198                                                                    |              | S199                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C105                               |                     | S200                                                                    |              | S201                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C106                               |                     | S202                                                                    |              | S203                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C107                               |                     | S204                                                                    |              | S205                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C108                               |                     | S206                                                                    |              | S207                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C109                               |                     | S208                                                                    |              | S209                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C110                               |                     | S210                                                                    |              | S211                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C111                               |                     | S212                                                                    |              | S213                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C112                               |                     | S214                                                                    |              | S215                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C113                               |                     | S216                                                                    |              | S217                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C114                               |                     | S218                                                                    |              | S219                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C115                               |                     | S220                                                                    |              | S221                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C116                               |                     | S222                                                                    |              | S223                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C117                               |                     | S224                                                                    |              | S225                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C118                               |                     | S226                                                                    |              | S227                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C119                               |                     | S228                                                                    |              | S229                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C120                               |                     | S230                                                                    |              | S231                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C121                               |                     | S232                                                                    |              | S233                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C122                               |                     | S234                                                                    |              | S235                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C123                               |                     | S236                                                                    |              | S237                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C124                               |                     | S238                                                                    |              | S239                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C125                               |                     | S240                                                                    |              | S241                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C126                               |                     | S242                                                                    |              | S243                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C127                               |                     | S244                                                                    |              | S245                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C128                               |                     | S246                                                                    |              | S247                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C129                               |                     | S248                                                                    |              | S249                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C130                               |                     | S250                                                                    |              | S251                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C131                               |                     | S252                                                                    |              | S253                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C132                               |                     | S254                                                                    |              | S255                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C133                               |                     | S256                                                                    |              | S257                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C134                               |                     | S258                                                                    |              | S259                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C135                               |                     | S260                                                                    |              | S261                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C136                               |                     | S262                                                                    |              | S263                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C137                               |                     | S264                                                                    |              | S265                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C138                               |                     | S266                                                                    |              | S267                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C139                               |                     | S268                                                                    |              | S269                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C140                               |                     | S270                                                                    |              | S271                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C141                               |                     | S272                                                                    |              | S273                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C142                               |                     | S274                                                                    |              | S275                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C143                               |                     | S276                                                                    |              | S277                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C144                               |                     | S278                                                                    |              | S279                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C145                               |                     | S280                                                                    |              | S281                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C146                               |                     | S282                                                                    |              | S283                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C147                               |                     | S284                                                                    |              | S285                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C148                               |                     | S286                                                                    |              | S287                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C149                               |                     | S288                                                                    |              | S289                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C150                               |                     | S290                                                                    |              | S291                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C151                               |                     | S292                                                                    |              | S293                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C152                               |                     | S294                                                                    |              | S295                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C153                               |                     | S296                                                                    |              | S297                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C154                               |                     | S298                                                                    |              | S299                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C155                               |                     | S300                                                                    |              | S301                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C156                               |                     | S302                                                                    |              | S303                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C157                               |                     | S304                                                                    |              | S305                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C158                               |                     | S306                                                                    |              | S307                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C159                               |                     | S308                                                                    |              | S309                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C160                               |                     | S310                                                                    |              | S311                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C161                               |                     | S312                                                                    |              | S313                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C162                               |                     | S314                                                                    |              | S315                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C163                               |                     | S316                                                                    |              | S317                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C164                               |                     | S318                                                                    |              | S319                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C165                               |                     | S320                                                                    |              | S321                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C166                               |                     | S322                                                                    |              | S323                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C167                               |                     | S324                                                                    |              | S325                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C168                               |                     | S326                                                                    |              | S327                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C169                               |                     | S328                                                                    |              | S329                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C170                               |                     | S330                                                                    |              | S331                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C171                               |                     | S332                                                                    |              | S333                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C172                               |                     | S334                                                                    |              | S335                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C173                               |                     | S336                                                                    |              | S337                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C174                               |                     | S338                                                                    |              | S339                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C175                               |                     | S340                                                                    |              | S341                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C176                               |                     | S342                                                                    |              | S343                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C177                               |                     | S344                                                                    |              | S345                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C178                               |                     | S346                                                                    |              | S347                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C179                               |                     | S348                                                                    |              | S349                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C180                               |                     | S350                                                                    |              | S351                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C181                               |                     | S352                                                                    |              | S353                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C182                               |                     | S354                                                                    |              | S355                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C183                               |                     | S356                                                                    |              | S357                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C184                               |                     | S358                                                                    |              | S359                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C185                               |                     | S360                                                                    |              | S361                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C186                               |                     | S362                                                                    |              | S363                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C187                               |                     | S364                                                                    |              | S365                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C188                               |                     | S366                                                                    |              | S367                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C189                               |                     | S368                                                                    |              | S369                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C190                               |                     | S370                                                                    |              | S371                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C191                               |                     | S372                                                                    |              | S373                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C192                               |                     | S374                                                                    |              | S375                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C193                               |                     | S376                                                                    |              | S377                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C194                               |                     | S378                                                                    |              | S379                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C195                               |                     | S380                                                                    |              | S381                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C196                               |                     | S382                                                                    |              | S383                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C197                               |                     | S384                                                                    |              | S385                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C198                               |                     | S386                                                                    |              | S387                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C199                               |                     | S388                                                                    |              | S389                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C200                               |                     | S390                                                                    |              | S391                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C201                               |                     | S392                                                                    |              | S393                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C202                               |                     | S394                                                                    |              | S395                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C203                               |                     | S396                                                                    |              | S397                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C204                               |                     | S398                                                                    |              | S399                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C205                               |                     | S399                                                                    |              | S400                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C206                               |                     | S400                                                                    |              | S401                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C207                               |                     | S401                                                                    |              | S402                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  | C208                               |                     | S402                                                                    |              | S403                              |  |
|                                                                                                                                                                                                                                        |  |                                          |  |                                    |                     |                                                                         |              |                                   |  |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-69200-00000-00000-00000-00000-00000-00000

7.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         | Local Name: |                                                                                                                                    |               |                                                                             |                     |
| Watershed Code: 480-927700-69200-00000-00000-00000-00000-00000-00000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         | ILP Map #:  |                                                                                                                                    | ILP #:        |                                                                             |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| Reach #: 7.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | UTM (Zone/East/North): 10.319946.6034139                                                                                                                                                                           |                   |                                                                                                                                                                                                                                                                                         |             | Sample Type: Random                                                                                                                |               |                                                                             |                     |
| Length (km): .67                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Coupling: Decoupled                                                                                                                                                                                                |                   | Magnitude: 12                                                                                                                                                                                                                                                                           |             | BGC Zone: SBS                                                                                                                      |               |                                                                             |                     |
| Gradient (%): 0.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Confinement: Unconfined                                                                                                                                                                                            |                   | Order: 3                                                                                                                                                                                                                                                                                |             | Open water: Present                                                                                                                |               |                                                                             |                     |
| US Elev (m): 994                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Islands: Occasional                                                                                                                                                                                                |                   | Riparian Vegetation: Wetland                                                                                                                                                                                                                                                            |             |                                                                                                                                    |               |                                                                             |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| Site #: 158                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Field UTM 10.320619.6034100                                                                                                                                                                                        |                   | Agency: C016                                                                                                                                                                                                                                                                            |             | Crew: MJ/MG                                                                                                                        |               | Date: 2001-09-24                                                            |                     |
| Site Length (m): 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | GIS UTM..                                                                                                                                                                                                          |                   | Agency Name: FINS Consulting Ltd.                                                                                                                                                                                                                                                       |             |                                                                                                                                    |               |                                                                             |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Intermittent: <input type="checkbox"/>                                                                                                                                                                             |                   | Avg                                                                                                                                                                                                                                                                                     |             | Min                                                                                                                                |               | Max                                                                         |                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Tribes.: <input type="checkbox"/>                                                                                                                                                                                  |                   | Channel Width (m): 15.00                                                                                                                                                                                                                                                                |             | 15                                                                                                                                 |               | 15                                                                          |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                    |                   | Wetted Width (m): 15.00                                                                                                                                                                                                                                                                 |             | 15                                                                                                                                 |               | 15                                                                          |                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                    |                   | Bankfull Depth (m): 3.00                                                                                                                                                                                                                                                                |             | 3                                                                                                                                  |               | 3                                                                           |                     |
| High <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Temp (C): 9                                                                                                                                                                                                        |                   | pH: 6.6                                                                                                                                                                                                                                                                                 |             | Conductivity: 50                                                                                                                   |               | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | D95 (cm): 0.01                                                                                                                                                                                                     |                   | Bars: Non <input checked="" type="checkbox"/>                                                                                                                                                                                                                                           |             | Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |               | Braid <input type="checkbox"/>                                              |                     |
| Subdominant: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | D (cm): 0.01                                                                                                                                                                                                       |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| Channel Pattern: Irregular Meanders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Islands: None                                                                                                                                                                                                      |                   | DISTURBANCE INDICATORS                                                                                                                                                                                                                                                                  |             |                                                                                                                                    |               |                                                                             |                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                    |                   | O1 <input checked="" type="checkbox"/> B1 <input type="checkbox"/> B2 <input type="checkbox"/> B3 <input type="checkbox"/> D1 <input type="checkbox"/> D2 <input type="checkbox"/> D3 <input type="checkbox"/>                                                                          |             |                                                                                                                                    |               |                                                                             |                     |
| Confinement: Unconfined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                    |                   | C1 <input type="checkbox"/> C2 <input type="checkbox"/> C3 <input type="checkbox"/> C4 <input type="checkbox"/> C5 <input type="checkbox"/> S1 <input type="checkbox"/> S2 <input type="checkbox"/> S3 <input type="checkbox"/> S4 <input type="checkbox"/> S5 <input type="checkbox"/> |             |                                                                                                                                    |               |                                                                             |                     |
| Morphology: LC Large Channel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Type: SWD                                                                                                                                                                                                          |                   | LWD                                                                                                                                                                                                                                                                                     |             | B                                                                                                                                  |               | U                                                                           |                     |
| LWD: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Amount: N                                                                                                                                                                                                          |                   | N                                                                                                                                                                                                                                                                                       |             | N                                                                                                                                  |               | N                                                                           |                     |
| LWD Dist: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Location: P/S/O:                                                                                                                                                                                                   |                   | <input type="checkbox"/>                                                                                                                                                                                                                                                                |             | <input type="checkbox"/>                                                                                                           |               | <input type="checkbox"/>                                                    |                     |
| Right Bank: Shape: Sloping (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                   | Crown Closure                                                                                                                                                                                                                                                                           |             | 0%                                                                                                                                 |               |                                                                             |                     |
| Left Bank: Shape: Sloping (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| Right Bank: Rip.Veg: Wetland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Stage: Not Applicable                                                                                                                                                                                              |                   | Instream Veg: None <input type="checkbox"/> Algae <input checked="" type="checkbox"/> Moss <input type="checkbox"/> Vascular <input checked="" type="checkbox"/>                                                                                                                        |             |                                                                                                                                    |               |                                                                             |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Stage: Not Applicable                                                                                                                                                                                              |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| FEATURES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| NID Map                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NID            | Type                                                                                                                                                                                                               | Hgt               | Method                                                                                                                                                                                                                                                                                  | Lg          | Method                                                                                                                             | Photo         | AirPhoto                                                                    | UTM (Z/E/N)         |
| 93K.041                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 31581          | BD                                                                                                                                                                                                                 | 1.5               | GE                                                                                                                                                                                                                                                                                      | 17          | HC                                                                                                                                 | R: 6 F: 10 L: | #:                                                                          | ..                  |
| Comments:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | potential obstruction?                                                                                                                                                                                             |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Capture Method | Number of Events                                                                                                                                                                                                   | Length fished (m) | Total Time                                                                                                                                                                                                                                                                              | Voltage     | Species                                                                                                                            | Total Fish    | Minimum Length (mm)                                                         | Maximum Length (mm) |
| 158                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | EF             | 1                                                                                                                                                                                                                  | 100               | 173 sec                                                                                                                                                                                                                                                                                 | 900         | NFC                                                                                                                                | 0             |                                                                             |                     |
| 158                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | VO             | 1                                                                                                                                                                                                                  |                   | 10 min                                                                                                                                                                                                                                                                                  |             | RB                                                                                                                                 | 2             | 150                                                                         | 150                 |
| Roll#: 6, Frame# 10, CD# 1, Image# 132, Direction: U, SCALE/COMMENT: mg - BD in features at start of reach<br>Roll#: 6, Frame# 11, CD# 1, Image# 133, Direction: U, SCALE/COMMENT: trees - wetland reach.<br>SITE CARD : site=UTM<br>SITE CARD : water level recently risen due to newly-built BD over old one.<br>WATERBODY : Observed rainbow trout jumping in pond.<br>OVERWINTERING HABITAT : Good in deep run habitat.<br>OTHER HABITAT : Fair rainbow trout habitat. Wetland reach with slow flow, almost stagnant but potential passage to upper reaches. |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                                                                                                                         |             |                                                                                                                                    |               |                                                                             |                     |

**OTHER HABITAT :** Likely not utilized due to extensive wetland d/s in reach 7. Many BD's in lower section of this reach.

COVER: Moderately steep and seasonal stream with poor instream cover. During spring, water rages (frequent overhanging banks). Scales of dried algae indicates seasonality.

**BFP FFHI 2001 - Upper Pinkut Watershed**

| Reach # | ILP Map # | ILP # |
|---------|-----------|-------|
| 1.0     |           |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------|--------------------------|---------------------------|----------------------------|----------------------------|------------|------------|--------------------------|----------|-----------|-----------|-----------|----------------------------|------|----|----|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------|----|----|----|----------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>Gazetted Name:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Local Name:</b>                       |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Watershed Code:</b> 480-927700-69200-72600-0000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>ILP Map #:</b> <b>ILP #:</b>          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>REACH</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Reach #:</b> 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>UTM(Zone/East/North):</b> 10.318875.6034508                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                          | <b>Sample Type:</b> Random                                                                                                                                                                 |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Length (km):</b> .30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Coupling:</b> Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Magnitude:</b> 2                      | <b>BGC Zone:</b> SBS                                                                                                                                                                       |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Gradient (%):</b> 4.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Confinement:</b> Unconfined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Order:</b> 2                          | <b>Open water:</b> Present                                                                                                                                                                 |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>US Elev (m):</b> 1020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Islands:</b> None Visible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>Riparian Vegetation:</b> Coniferous   |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Bars:</b> None <input checked="" type="checkbox"/> <b>Side</b> <input type="checkbox"/> <b>Diagonal</b> <input type="checkbox"/> <b>Mid-channel</b> <input type="checkbox"/> <b>Span</b> <input type="checkbox"/> <b>Braid</b> <input type="checkbox"/> <b>Landuse:</b> Logging, with reserves                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>SITE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Site #:</b> 161                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Field UTM</b> 10.318985.6034366                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Agency:</b> C016                      | <b>Crew:</b> MJ/MG <b>Date:</b> 2001-09-23                                                                                                                                                 |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Site Length (m):</b> 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>GIS UTM..</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Agency Name:</b> FINS Consulting Ltd. |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>CHANNEL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>No Vis.Ch.:</b> <input checked="" type="checkbox"/> <b>Intermittent:</b> <input type="checkbox"/><br><b>Dewatered:</b> <input type="checkbox"/> <b>Tribs.:</b> <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                     | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td><b>Avg</b></td> <td><b>Min</b></td> <td><b>Max</b></td> <td><b>#</b></td> </tr> <tr> <td><b>Channel Width (m):</b></td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td><b>Wetted Width (m):</b></td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td><b>Bankfull Depth (m):</b></td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                          | <b>Avg</b>                                                                                                                                                                                 | <b>Min</b>                    | <b>Max</b>               | <b>#</b>                 | <b>Channel Width (m):</b> | 0.00                       | 0                          | 0          | 0          | <b>Wetted Width (m):</b> | 0.00     | 0         | 0         | 0         | <b>Bankfull Depth (m):</b> | 0.00 | 0  | 0  | 0 | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td><b>Avg</b></td> <td><b>Min</b></td> <td><b>Max</b></td> <td><b>#</b></td> </tr> <tr> <td><b>Gradient %:</b></td> <td>2.50</td> <td>2</td> <td>3</td> <td>2</td> </tr> <tr> <td><b>Pool Depth (m):</b></td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> </table> |  | <b>Avg</b>               | <b>Min</b>               | <b>Max</b>               | <b>#</b>                 | <b>Gradient %:</b>       | 2.50                     | 2                        | 3                        | 2                        | <b>Pool Depth (m):</b>   | 0.00 | 0  | 0  | 0  | <b>Stage:</b> <b>Low</b> <input type="checkbox"/><br><b>Med</b> <input type="checkbox"/><br><b>High</b> <input type="checkbox"/> |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Avg</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Min</b>                               | <b>Max</b>                                                                                                                                                                                 | <b>#</b>                      |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Channel Width (m):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0                                        | 0                                                                                                                                                                                          | 0                             |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Wetted Width (m):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0                                        | 0                                                                                                                                                                                          | 0                             |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Bankfull Depth (m):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0                                        | 0                                                                                                                                                                                          | 0                             |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Avg</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Min</b>                               | <b>Max</b>                                                                                                                                                                                 | <b>#</b>                      |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Gradient %:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2                                        | 3                                                                                                                                                                                          | 2                             |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Pool Depth (m):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0                                        | 0                                                                                                                                                                                          | 0                             |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Temp (C):</b> 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>pH:</b> 7.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Conductivity:</b> 110                 | <b>Turbidity.:</b> <b>Turbid</b> <input type="checkbox"/> <b>Low</b> <input type="checkbox"/><br><b>Moderate</b> <input type="checkbox"/> <b>Clear</b> <input checked="" type="checkbox"/> |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>MORPHOLOGY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Bed Material:</b> <b>Dominant:</b> D95 (cm):<br><b>Subdominant:</b> D (cm):                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Bars:</b> Non <input type="checkbox"/> <b>Side</b> <input type="checkbox"/> <b>Diagonal</b> <input type="checkbox"/> <b>Mid-channel</b> <input type="checkbox"/> <b>Span</b> <input type="checkbox"/> <b>Braid</b> <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Channel Pattern:</b> <b>Islands:</b><br><b>Coupling:</b><br><b>Confinement:</b><br><b>Morphology:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                       | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="10" style="text-align: center;"><b>DISTURBANCE INDICATORS</b></td> </tr> <tr> <td>O1</td><td>B1</td><td>B2</td><td>B3</td><td>D1</td><td>D2</td><td>D3</td><td colspan="3"></td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> <tr> <td>C1</td><td>C2</td><td>C3</td><td>C4</td><td>C5</td><td>S1</td><td>S2</td><td>S3</td><td>S4</td><td>S5</td> </tr> <tr> <td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td> </tr> </table> |                                          |                                                                                                                                                                                            | <b>DISTURBANCE INDICATORS</b> |                          |                          |                           |                            |                            |            |            |                          |          | O1        | B1        | B2        | B3                         | D1   | D2 | D3 |   |                                                                                                                                                                                                                                                                                                                                                               |  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C1   | C2 | C3 | C4 | C5                                                                                                                               | S1 | S2 | S3 | S4 | S5 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>DISTURBANCE INDICATORS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| O1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | B1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | B2                                       | B3                                                                                                                                                                                         | D1                            | D2                       | D3                       |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>                 | <input type="checkbox"/>                                                                                                                                                                   | <input type="checkbox"/>      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>   |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| C1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | C2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | C3                                       | C4                                                                                                                                                                                         | C5                            | S1                       | S2                       | S3                        | S4                         | S5                         |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>                 | <input type="checkbox"/>                                                                                                                                                                   | <input type="checkbox"/>      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  | <input type="checkbox"/>   | <input type="checkbox"/>   |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>COVER</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Total Cover:</b><br><br><b>LWD:</b><br><b>LWD Dist:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td><b>Type:</b></td> <td><b>SWD</b></td> <td><b>LWD</b></td> <td><b>B</b></td> <td><b>U</b></td> <td><b>DP</b></td> <td><b>OV</b></td> <td><b>IV</b></td> </tr> <tr> <td><b>Amount:</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>Location: P/S/O:</b></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            | <b>Type:</b>               | <b>SWD</b> | <b>LWD</b> | <b>B</b>                 | <b>U</b> | <b>DP</b> | <b>OV</b> | <b>IV</b> | <b>Amount:</b>             |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          | <b>Location: P/S/O:</b>  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Type:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>SWD</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>LWD</b>                               | <b>B</b>                                                                                                                                                                                   | <b>U</b>                      | <b>DP</b>                | <b>OV</b>                | <b>IV</b>                 |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Amount:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Location: P/S/O:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/>                 | <input type="checkbox"/>                                                                                                                                                                   | <input type="checkbox"/>      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Right Bank:</b> <b>Shape:</b><br><b>Left Bank:</b> <b>Shape:</b><br><b>Right Bank:</b> <b>Rip.Veg:</b><br><b>Left Bank:</b> <b>Rip.Veg:</b>                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Texture:</b> Fines <input type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/><br><b>Stage:</b><br><b>Instream Veg:</b> None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input type="checkbox"/> Vascular <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>FISH</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Site Number</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Capture Method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Number of Events</b>                  | <b>Length fished (m)</b>                                                                                                                                                                   | <b>Total Time</b>             | <b>Voltage</b>           | <b>Species</b>           | <b>Total Fish</b>         | <b>Minimum Length (mm)</b> | <b>Maximum Length (mm)</b> |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| 161                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | EF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1                                        | 100                                                                                                                                                                                        | 149 sec                       | 500                      | NFC                      | 0                         |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <b>Roll# :</b> 4 , <b>Frame#</b> 24 , <b>CD#</b> 1 , <b>Image#</b> 97 , <b>Direction:</b> U , <b>SCALE/COMMENT:</b> cam bag<br><b>Roll# :</b> 4 , <b>Frame#</b> 25 , <b>CD#</b> 1 , <b>Image#</b> 98 , <b>Direction:</b> D , <b>SCALE/COMMENT:</b> cam bag<br><b>SITE CARD :</b> site=UTM<br><b>MORPHOLOGY :</b> Drains willow shrub corridor.<br><b>WATERBODY :</b> Sampled isolated water puddles.<br><b>OTHER HABITAT :</b> Seepage with no continuous channel, no fluvium. Isolated mudholes filled with orange algae - not an FPC stream. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                          |                                                                                                                                                                                            |                               |                          |                          |                           |                            |                            |            |            |                          |          |           |           |           |                            |      |    |    |   |                                                                                                                                                                                                                                                                                                                                                               |  |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |      |    |    |    |                                                                                                                                  |    |    |    |    |    |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # 1.0 ILP Map # 093K.042 ILP # 42025

| STREAM REFERENCING                                                                                                                                                                                                                                                                                      |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------|--------------------|------|----|----|----|-------------------|---------|----|----|----|---------------------|------|----|----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--|-----|-----|-----|---|-------------|------|---|---|---|-----------------|------|---|---|---|
| Gazetted Name:                                                                                                                                                                                                                                                                                          |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Local Name:         |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000                                                                                                                                                                                                                                         |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ILP Map #: 093K.042 |                                | ILP #: 42025 |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| REACH                                                                                                                                                                                                                                                                                                   |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Reach #: 1.0                                                                                                                                                                                                                                                                                            |      | UTM (Zone/East/North): 10.320825.6036627                                                                                                                                                                                                                                                                                     |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     | Sample Type: Biased            |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Length (km): .07                                                                                                                                                                                                                                                                                        |      | Coupling: Decoupled                                                                                                                                                                                                                                                                                                          |     | Magnitude: 2                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     | BGC Zone: SBS                  |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Gradient (%): 2.9                                                                                                                                                                                                                                                                                       |      | Confinement: Unconfined                                                                                                                                                                                                                                                                                                      |     | Order: 2                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     | Open water: Absent             |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| US Elev (m): 972                                                                                                                                                                                                                                                                                        |      | Islands: NONE                                                                                                                                                                                                                                                                                                                |     | Riparian Vegetation: Shrubs                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                  |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| SITE                                                                                                                                                                                                                                                                                                    |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Site #: 162                                                                                                                                                                                                                                                                                             |      | Field UTM 10.320790.6036583                                                                                                                                                                                                                                                                                                  |     | Agency: C016                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     | Crew: MJ/MG                    |              | Date: 2001-09-23                                                                                                                         |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Site Length (m): 200                                                                                                                                                                                                                                                                                    |      | GIS UTM..                                                                                                                                                                                                                                                                                                                    |     | Agency Name: FINS Consulting Ltd.                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| CHANNEL                                                                                                                                                                                                                                                                                                 |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| No Vis.Ch.: <input checked="" type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                  |      | Dewatered: <input type="checkbox"/> Tribs.: <input type="checkbox"/>                                                                                                                                                                                                                                                         |     | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Avg</th> <th>Min</th> <th>Max</th> <th>#</th> </tr> </thead> <tbody> <tr> <td>Channel Width (m):</td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Wetted Width (m):</td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Bankfull Depth (m):</td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> |                     |                                | Avg          | Min                                                                                                                                      | Max              | #                      | Channel Width (m): | 0.00 | 0  | 0  | 0  | Wetted Width (m): | 0.00    | 0  | 0  | 0  | Bankfull Depth (m): | 0.00 | 0  | 0  | 0  | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Avg</th> <th>Min</th> <th>Max</th> <th>#</th> </tr> </thead> <tbody> <tr> <td>Gradient %:</td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Pool Depth (m):</td> <td>0.00</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> |    |  | Avg | Min | Max | # | Gradient %: | 0.00 | 0 | 0 | 0 | Pool Depth (m): | 0.00 | 0 | 0 | 0 |
|                                                                                                                                                                                                                                                                                                         | Avg  | Min                                                                                                                                                                                                                                                                                                                          | Max | #                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Channel Width (m):                                                                                                                                                                                                                                                                                      | 0.00 | 0                                                                                                                                                                                                                                                                                                                            | 0   | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Wetted Width (m):                                                                                                                                                                                                                                                                                       | 0.00 | 0                                                                                                                                                                                                                                                                                                                            | 0   | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Bankfull Depth (m):                                                                                                                                                                                                                                                                                     | 0.00 | 0                                                                                                                                                                                                                                                                                                                            | 0   | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
|                                                                                                                                                                                                                                                                                                         | Avg  | Min                                                                                                                                                                                                                                                                                                                          | Max | #                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Gradient %:                                                                                                                                                                                                                                                                                             | 0.00 | 0                                                                                                                                                                                                                                                                                                                            | 0   | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Pool Depth (m):                                                                                                                                                                                                                                                                                         | 0.00 | 0                                                                                                                                                                                                                                                                                                                            | 0   | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Stage: Low <input type="checkbox"/> Med <input type="checkbox"/> High <input type="checkbox"/>                                                                                                                                                                                                          |      | Temp (C):                                                                                                                                                                                                                                                                                                                    |     | pH:                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     | Conductivity:                  |              | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> Clear <input type="checkbox"/> |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| MORPHOLOGY                                                                                                                                                                                                                                                                                              |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Bed Material: Dominant:                                                                                                                                                                                                                                                                                 |      | D95 (cm):                                                                                                                                                                                                                                                                                                                    |     | Bars: Non <input type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/>                                                                                                                                                                                                                                                                                 |                     | Braid <input type="checkbox"/> |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Subdominant:                                                                                                                                                                                                                                                                                            |      | D (cm):                                                                                                                                                                                                                                                                                                                      |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Channel Pattern:                                                                                                                                                                                                                                                                                        |      | Islands:                                                                                                                                                                                                                                                                                                                     |     | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">DISTURBANCE INDICATORS</th> <th>O1</th> <th>B1</th> <th>B2</th> <th>B3</th> <th>D1</th> <th>D2</th> <th>D3</th> </tr> </thead> <tbody> <tr> <td>C1</td> <td>C2</td> <td>C3</td> <td>C4</td> <td>C5</td> <td>S1</td> <td>S2</td> <td>S3</td> <td>S4</td> </tr> </tbody> </table>                                                                        |                     |                                |              |                                                                                                                                          |                  | DISTURBANCE INDICATORS |                    | O1   | B1 | B2 | B3 | D1                | D2      | D3 | C1 | C2 | C3                  | C4   | C5 | S1 | S2 | S3                                                                                                                                                                                                                                                                                                                                                    | S4 |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| DISTURBANCE INDICATORS                                                                                                                                                                                                                                                                                  |      | O1                                                                                                                                                                                                                                                                                                                           | B1  | B2                                                                                                                                                                                                                                                                                                                                                                                                                                                    | B3                  | D1                             | D2           | D3                                                                                                                                       |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| C1                                                                                                                                                                                                                                                                                                      | C2   | C3                                                                                                                                                                                                                                                                                                                           | C4  | C5                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S1                  | S2                             | S3           | S4                                                                                                                                       |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Coupling:                                                                                                                                                                                                                                                                                               |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Confinement:                                                                                                                                                                                                                                                                                            |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Morphology:                                                                                                                                                                                                                                                                                             |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| COVER                                                                                                                                                                                                                                                                                                   |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Total Cover:                                                                                                                                                                                                                                                                                            |      | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Type:</th> <th>SWD</th> <th>LWD</th> <th>B</th> <th>U</th> <th>DP</th> <th>OV</th> <th>IV</th> </tr> </thead> <tbody> <tr> <td>Amount:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          | Type:            | SWD                    | LWD                | B    | U  | DP | OV | IV                | Amount: |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Type:                                                                                                                                                                                                                                                                                                   | SWD  | LWD                                                                                                                                                                                                                                                                                                                          | B   | U                                                                                                                                                                                                                                                                                                                                                                                                                                                     | DP                  | OV                             | IV           |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Amount:                                                                                                                                                                                                                                                                                                 |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| LWD:                                                                                                                                                                                                                                                                                                    |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| LWD Dist:                                                                                                                                                                                                                                                                                               |      | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Location: P/S/O:</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>           |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          | Location: P/S/O: |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Location: P/S/O:                                                                                                                                                                                                                                                                                        |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
|                                                                                                                                                                                                                                                                                                         |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Right Bank: Shape:                                                                                                                                                                                                                                                                                      |      | Texture: Fines <input type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                      |     | Crown Closure                                                                                                                                                                                                                                                                                                                                                                                                                                         |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Left Bank: Shape:                                                                                                                                                                                                                                                                                       |      | Texture: Fines <input type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                      |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Right Bank: Rip.Veg:                                                                                                                                                                                                                                                                                    |      | Stage:                                                                                                                                                                                                                                                                                                                       |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                     |      | Stage:                                                                                                                                                                                                                                                                                                                       |     | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input type="checkbox"/> Vascular <input type="checkbox"/>                                                                                                                                                                                                                                                                                                            |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| <p>Roll# : 6 , Frame# 9 , CD# 1 , Image# 131 , Direction: U , SCALE/COMMENT: no scale - meadow.</p> <p>SITE CARD : site=UTM</p> <p>MORPHOLOGY : meadow adjacent to Pinkut Creek with squishy ground and no sign of channel, fluvium etc. Not an FPC stream.</p> <p>OTHER HABITAT : No fish habitat.</p> |      |                                                                                                                                                                                                                                                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |                                |              |                                                                                                                                          |                  |                        |                    |      |    |    |    |                   |         |    |    |    |                     |      |    |    |    |                                                                                                                                                                                                                                                                                                                                                       |    |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-78100-00000-0000-0000-000-000-000-000

1.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------|-------------------|--------------------------------------------------------|---------------------------------|--------------------------------------------|--------------------|-------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                    |                   |                                                        | Local Name:                     |                                            |                    |                                           |                     |
| Watershed Code: 480-927700-78100-00000-0000-0000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                    |                   |                                                        | ILP Map #:                      |                                            | ILP #:             |                                           |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
| Reach #: 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | UTM (Zone/East/North): 10.319014.6038085           |                   |                                                        | Sample Type: Random             |                                            |                    |                                           |                     |
| Length (km): .30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | Coupling: Coupled                                  |                   | Magnitude: 1                                           |                                 | BGC Zone: SBS                              |                    |                                           |                     |
| Gradient (%): 8.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Confinement: Frequently Confin                     |                   |                                                        | Order: 1                        |                                            | Open water: Absent |                                           |                     |
| US Elev (m): 1015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Islands: NONE                                      |                   |                                                        | Riparian Vegetation: Coniferous |                                            |                    |                                           |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                                                                                                                 |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
| Site #: 163                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Field UTM 10.319111.6037853                        |                   | Agency: C016                                           |                                 | Crew: MJ/MG                                |                    | Date: 2001-09-24                          |                     |
| Site Length (m): 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | GIS UTM..                                          |                   | Agency Name: FINS Consulting Ltd.                      |                                 |                                            |                    |                                           |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Intermittent: <input type="checkbox"/>             |                   | Avg                                                    |                                 | Min                                        |                    | Max                                       |                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Trib.: <input type="checkbox"/>                    |                   | Channel Width (m): 0.73                                |                                 | 0.5                                        |                    | 0.9                                       |                     |
| Stage: Low <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                    |                   | Wetted Width (m): 0.38                                 |                                 | 0.200                                      |                    | 0.5                                       |                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   | Bankfull Depth (m): 0.27                               |                                 | 0.2                                        |                    | 0.3                                       |                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
| Temp (C): 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | pH: 7.4                                            |                   | Conductivity: 40                                       |                                 | Turbidity: Turbid <input type="checkbox"/> |                    | Low <input type="checkbox"/>              |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   |                                                        |                                 | Moderate <input type="checkbox"/>          |                    | Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
| Bed Material: Dominant: Gravels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | D95 (cm): 14.00                                    |                   | Bars: Non <input checked="" type="checkbox"/>          |                                 | Side <input type="checkbox"/>              |                    | Diagonal <input type="checkbox"/>         |                     |
| Subdominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | D (cm): 3.00                                       |                   |                                                        |                                 | Mid-channel <input type="checkbox"/>       |                    | Span <input type="checkbox"/>             |                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Islands: None                                      |                   | DISTURBANCE                                            |                                 | O1                                         |                    | B1                                        |                     |
| Coupling: Coupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                    |                   | INDICATORS                                             |                                 | B2                                         |                    | B3                                        |                     |
| Confinement: Confined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                    |                   |                                                        |                                 | D1                                         |                    | D2                                        |                     |
| Morphology: CP Cascade Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                    |                   |                                                        |                                 | D3                                         |                    |                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   | C1                                                     |                                 | C2                                         |                    | C3                                        |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   | C4                                                     |                                 | C5                                         |                    | S1                                        |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   | S2                                                     |                                 | S3                                         |                    | S4                                        |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   | S5                                                     |                                 |                                            |                    |                                           |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
| Total Cover: Trace                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Type: SWD                                          |                   | LWD                                                    |                                 | B                                          |                    | U                                         |                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Amount: T                                          |                   | T                                                      |                                 | T                                          |                    | S                                         |                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Location: P/S/O:                                   |                   | <input checked="" type="checkbox"/>                    |                                 | <input checked="" type="checkbox"/>        |                    | <input checked="" type="checkbox"/>       |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   | <input checked="" type="checkbox"/>                    |                                 | <input checked="" type="checkbox"/>        |                    | <input checked="" type="checkbox"/>       |                     |
| Right Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input checked="" type="checkbox"/>             |                                 | Cobble <input type="checkbox"/>            |                    | Boulder <input type="checkbox"/>          |                     |
| Left Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input checked="" type="checkbox"/>             |                                 | Cobble <input type="checkbox"/>            |                    | Boulder <input type="checkbox"/>          |                     |
| Right Bank: Rip.Veg: Coniferous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Stage: Mature forest                               |                   | Instream Veg: None <input checked="" type="checkbox"/> |                                 | Algae <input type="checkbox"/>             |                    | Moss <input type="checkbox"/>             |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Stage: Mature forest                               |                   |                                                        |                                 | Vascular <input type="checkbox"/>          |                    |                                           |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Capture Method | Number of Events                                   | Length fished (m) | Total Time                                             | Voltage                         | Species                                    | Total Fish         | Minimum Length (mm)                       | Maximum Length (mm) |
| 163                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | EF             | 1                                                  | 100               | 38 sec                                                 | 600                             | NFC                                        | 0                  |                                           |                     |
| Roll#: 6, Frame# 5, CD# 1, Image# 127, Direction: U, SCALE/COMMENT: cam bag<br>Roll#: 6, Frame# 6, CD# 1, Image# 128, Direction: D, SCALE/COMMENT: cam bag<br>SITE CARD: site=UTM<br>MORPHOLOGY: flows through forested gully.<br>SPAWNING HABITAT: Poor - abundant gravels, but likely dries before eggs hatch.<br>OVERWINTERING HABITAT: None - too shallow - prefer Pinkut Creek.<br>OTHER HABITAT: Small and seasonal stream, habitat use limited to spring (if any). Likely too fast flow at that time. Stream watered after 3 days of intense rain, exhibits signs of dewatering - dry detritus. |                |                                                    |                   |                                                        |                                 |                                            |                    |                                           |                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Watershed Code: 480-927700-78100-00000-00000-00000-00000-00000-000

Reach # ILP Map # ILP #

2.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------|-------------------|-----------------------------------------------|-------------|--------------------------------------------|------------|-----------------------------------------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   |                                               | Local Name: |                                            |            |                                                                             |                     |
| Watershed Code: 480-927700-78100-00000-00000-00000-00000-00000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                    |                   |                                               | ILP Map #:  |                                            | ILP #:     |                                                                             |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |
| Reach #: 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | UTM (Zone/East/North): 10.318823.6038365           |                   |                                               |             | Sample Type: Random                        |            |                                                                             |                     |
| Length (km): .38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Coupling: Decoupled                                |                   | Magnitude: 1                                  |             | BGC Zone: SBS                              |            |                                                                             |                     |
| Gradient (%): 2.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Confinement: Unconfined                            |                   | Order: 1                                      |             | Open water: Absent                         |            |                                                                             |                     |
| US Elev (m): 1024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Islands: NONE                                      |                   | Riparian Vegetation: Coniferous               |             |                                            |            |                                                                             |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                                                                                                                             |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |
| Site #: 164                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Field UTM 10.318977.6038127                        |                   | Agency: C016                                  |             | Crew: MJ/MG                                |            | Date: 2001-09-24                                                            |                     |
| Site Length (m): 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | GIS UTM..                                          |                   | Agency Name: FINS Consulting Ltd.             |             |                                            |            |                                                                             |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Intermittent: <input type="checkbox"/>             |                   | Avg                                           |             | Min                                        |            | Max                                                                         |                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Tribes.: <input type="checkbox"/>                  |                   | Channel Width (m): 1.02                       |             | 0.5                                        |            | 1.600                                                                       |                     |
| Stage: Low <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   | Wetted Width (m): 0.78                        |             | 0.300                                      |            | 1.5                                                                         |                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                    |                   | Bankfull Depth (m): 0.37                      |             | 0.3                                        |            | 0.4                                                                         |                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Temp (C): 7                                        |                   | pH: 7.4                                       |             | Conductivity: 40                           |            | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                    |                   |                                               |             |                                            |            | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | D95 (cm): 20.00                                    |                   | Bars: Non <input checked="" type="checkbox"/> |             | Side <input type="checkbox"/>              |            | Diagonal <input type="checkbox"/>                                           |                     |
| Subdominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | D (cm): 2.00                                       |                   |                                               |             | Mid-channel <input type="checkbox"/>       |            | Span <input type="checkbox"/>                                               |                     |
| Channel Pattern: Irregular, Wandering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Islands: None                                      |                   | DISTURBANCE                                   |             | O1                                         |            | B1                                                                          |                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                    |                   | INDICATORS                                    |             | B2                                         |            | B3                                                                          |                     |
| Confinement: Occasionally Confine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                    |                   | C1                                            |             | C2                                         |            | C3                                                                          |                     |
| Morphology: RP Riffle Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                    |                   | C4                                            |             | C5                                         |            | S1                                                                          |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                    |                   | S2                                            |             | S3                                         |            | S4                                                                          |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                    |                   | S5                                            |             |                                            |            |                                                                             |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |
| Total Cover: Moderate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Type: SWD                                          |                   | LWD                                           |             | B                                          |            | U                                                                           |                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Amount: T                                          |                   | T                                             |             | S                                          |            | S                                                                           |                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | Location: P/S/O:                                   |                   | <input checked="" type="checkbox"/>           |             | <input checked="" type="checkbox"/>        |            | <input checked="" type="checkbox"/>                                         |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                    |                   | <input checked="" type="checkbox"/>           |             | <input checked="" type="checkbox"/>        |            | <input checked="" type="checkbox"/>                                         |                     |
| Right Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input checked="" type="checkbox"/>    |             | Cobble <input checked="" type="checkbox"/> |            | Boulder <input type="checkbox"/>                                            |                     |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input checked="" type="checkbox"/>    |             | Cobble <input checked="" type="checkbox"/> |            | Boulder <input type="checkbox"/>                                            |                     |
| Right Bank: Rip.Veg: Shrubs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Stage: Not Applicable                              |                   | Rock <input type="checkbox"/>                 |             | Manmade <input type="checkbox"/>           |            | Crown Closure                                                               |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Stage: Not Applicable                              |                   | Instream Veg: None <input type="checkbox"/>   |             | Algae <input checked="" type="checkbox"/>  |            | Moss <input checked="" type="checkbox"/>                                    |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                    |                   |                                               |             |                                            |            | Vascular <input type="checkbox"/>                                           |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Capture Method | Number of Events                                   | Length fished (m) | Total Time                                    | Voltage     | Species                                    | Total Fish | Minimum Length (mm)                                                         | Maximum Length (mm) |
| 164                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EF             | 1                                                  | 100               | 77 sec                                        | 600         | NFC                                        | 0          |                                                                             |                     |
| <p>Roll#: 6, Frame# 7, CD# 1, Image# 129, Direction: U, SCALE/COMMENT: cam bag</p> <p>Roll#: 6, Frame# 8, CD# 1, Image# 130, Direction: D, SCALE/COMMENT: cam bag</p> <p>SITE CARD: site=UTM</p> <p>MORPHOLOGY: Flows over organic steps through shrubby corridor within shallow gully sparsely forested by conifers.</p> <p>SPAWNING HABITAT: None - lacks suitable substrate.</p> <p>REARING HABITAT: Poor rainbow trout habitat.</p> <p>OVERWINTERING HABITAT: none - too shallow.</p> <p>OTHER HABITAT: Small seasonal stream indicated by strands of dried algae and detritus. Mucky pool, organic steps.</p> |                |                                                    |                   |                                               |             |                                            |            |                                                                             |                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # ILP Map # ILP #  
2.0 093K.041 41006

## STREAM REFERENCING

Gazetted Name:

Local Name:

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

ILP Map #: 093K.041

ILP #: 41006

## REACH

Reach #: 2.0

UTM (Zone/East/North): 10.315524.6037148

Sample Type: Random

Length (km): .72

Coupling: Decoupled

Magnitude: 1

BGC Zone: ESSF

Gradient (%): 17.2

Confinement: Occasionally Con

Order: 1

Open water: Absent

US Elev (m): 1153

Islands: NONE

Riparian Vegetation: Coniferous

Bars: None ☒ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ Landuse: Other

## SITE

Site #: 165

Field UTM 10.315639.6037482

Agency: C016

Crew: MJ/MG

Date: 2001-09-19

Site Length (m): 400

GIS UTM..

Agency Name: FINS Consulting Ltd.

## CHANNEL

No Vis.Ch.: ☒

Intermittent: ☐

Dewatered: ☐

Trib.: ☐

Stage: Low ☐

Med ☐

High ☐

Temp (C):

pH:

Conductivity:

|                     | Avg  | Min | Max | # |
|---------------------|------|-----|-----|---|
| Channel Width (m):  | 0.00 | 0   | 0   | 0 |
| Wetted Width (m):   | 0.00 | 0   | 0   | 0 |
| Bankfull Depth (m): | 0.00 | 0   | 0   | 0 |

|                 | Avg   | Min | Max | # |
|-----------------|-------|-----|-----|---|
| Gradient %:     | 30.00 | 25  | 35  | 2 |
| Pool Depth (m): | 0.00  | 0   | 0   | 0 |

Turbidity: Turbid ☐ Low ☐

Moderate ☐ Clear ☐

## MORPHOLOGY

Bed Material: Dominant:

D95 (cm):

Bars: Non ☐

Side ☐

Diagonal ☐

Mid-channel ☐

Span ☐

Subdominant:

D (cm):

Braid ☐

Channel Pattern:

Islands:

DISTURBANCE

INDICATORS O1 B1 B2 B3 D1 D2 D3

Coupling:

Confinement:

Morphology:

C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

## COVER

Total Cover:

LWD:

LWD Dist:

| Type:            | SWD | LWD | B | U | DP | OV | IV |
|------------------|-----|-----|---|---|----|----|----|
| Amount:          |     |     |   |   |    |    |    |
| Location: P/S/O: |     |     |   |   |    |    |    |

FSZ: ☐

Right Bank: Shape:

Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Crown Closure

Left Bank: Shape:

Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg:

Stage:

Left Bank: Rip.Veg:

Stage:

Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

## FEATURES

| NID Map | NID   | Type | Hgt | Method | Lg | Method | Photo    | AirPhoto | UTM (Z/E/N) |
|---------|-------|------|-----|--------|----|--------|----------|----------|-------------|
| 93K.041 | 31651 | BMA  |     | GE     |    | GE     | R: F: L: | #:       | ..          |

Comments: No drainage at mapped location.

SITE CARD : site=UTM

SITE CARD : site is at road crossing.

SITE CARD : Not any kind of drainage at mapped location or within 150m radius. Just forest on 25-40% slope.

OTHER HABITAT : No fish habitat.

| Reach # | ILP Map # | ILP # |
|---------|-----------|-------|
| 1.0     | 093K.041  | 41009 |

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

## STREAM REFERENCING

**Gazetted Name:**

**Local Name:**

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

ILP Map #: 093K.041

ILP #: 41009

## REACH

|                                                                                                                                                                                                                                        |                                          |                                 |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------|---------------------|
| Reach #: 1.0                                                                                                                                                                                                                           | UTM (Zone/East/North): 10.316399.6039572 |                                 | Sample Type: Biased |
| Length (km): .77                                                                                                                                                                                                                       | Coupling: Decoupled                      | Magnitude: 3                    | BGC Zone: ESSF      |
| Gradient (%): 6.8                                                                                                                                                                                                                      | Confinement: Occasionally Con            | Order: 2                        | Open water: Absent  |
| US Elev (m): 1069                                                                                                                                                                                                                      | Islands: NONE                            | Riparian Vegetation: Coniferous |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural |                                          |                                 |                     |

## SITE

|                      |                             |                                   |             |                  |
|----------------------|-----------------------------|-----------------------------------|-------------|------------------|
| Site #: 166          | Field UTM 10.316345.6039201 | Agency: C016                      | Crew: MJ/MG | Date: 2001-09-21 |
| Site Length (m): 100 | GIS UTM..                   | Agency Name: FINS Consulting Ltd. |             |                  |

**CHANNEL**

|                                         |                                                   |                     |         |                  |       |   |  |                                            |      |       |                                         |   |
|-----------------------------------------|---------------------------------------------------|---------------------|---------|------------------|-------|---|--|--------------------------------------------|------|-------|-----------------------------------------|---|
| No Vis.Ch.: <input type="checkbox"/>    | Intermittent: <input checked="" type="checkbox"/> |                     | Avg     | Min              | Max   | # |  | Avg                                        | Min  | Max   | #                                       |   |
| Dewatered: <input type="checkbox"/>     | Tribs.: <input type="checkbox"/>                  | Channel Width (m):  | 0.75    | 0.300            | 1.200 | 6 |  | Gradient %:                                | 5.25 | 3     | 7                                       | 4 |
| Stage: Low <input type="checkbox"/>     |                                                   | Wetted Width (m):   | 0.42    | 0                | 1     | 6 |  | Pool Depth (m):                            | 0.21 | 0.170 | 0.26                                    | 5 |
| Med <input checked="" type="checkbox"/> |                                                   | Bankfull Depth (m): | 0.20    | 0.2              | 0.2   | 3 |  |                                            |      |       |                                         |   |
| High <input type="checkbox"/>           |                                                   | Temp (C): 8         | pH: 6.6 | Conductivity: 60 |       |   |  | Turbidity: Turbid <input type="checkbox"/> |      |       | Low <input checked="" type="checkbox"/> |   |
|                                         |                                                   |                     |         |                  |       |   |  | Moderate <input type="checkbox"/>          |      |       | Clear <input type="checkbox"/>          |   |

## MORPHOLOGY

[illegible]

## COVER

|                          |                     |                  |                                                                                                                                         |                          |                                     |                                     |                          |                          |                                     |                          |                          |         |                          |               |
|--------------------------|---------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|---------|--------------------------|---------------|
| Total Cover: Moderate    |                     | Type:            | SWD                                                                                                                                     | LWD                      | B                                   | U                                   | DP                       | OV                       | IV                                  |                          |                          |         |                          |               |
| LWD: None                |                     | Amount:          | T                                                                                                                                       | N                        | T                                   | S                                   | D                        | S                        | T                                   |                          |                          |         |                          |               |
| LWD Dist: Not Applicable |                     | Location: P/S/O: | <input checked="" type="checkbox"/>                                                                                                     | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |         |                          |               |
| Right Bank:              | Shape: V - shape    | Texture: Fines   | <input checked="" type="checkbox"/>                                                                                                     | Gravel                   | <input checked="" type="checkbox"/> | Cobble                              | <input type="checkbox"/> | Boulder                  | <input type="checkbox"/>            | Rock                     | <input type="checkbox"/> | Manmade | <input type="checkbox"/> | Crown Closure |
| Left Bank:               | Shape: V - shape    | Texture: Fines   | <input checked="" type="checkbox"/>                                                                                                     | Gravel                   | <input checked="" type="checkbox"/> | Cobble                              | <input type="checkbox"/> | Boulder                  | <input type="checkbox"/>            | Rock                     | <input type="checkbox"/> | Manmade | <input type="checkbox"/> | 21-40%        |
| Right Bank:              | Rip.Veg: Coniferous | Stage:           | Mature forest                                                                                                                           |                          |                                     |                                     |                          |                          |                                     |                          |                          |         |                          |               |
| Left Bank:               | Rip.Veg:            | Stage:           | Mature forest                                                                                                                           |                          |                                     |                                     |                          |                          |                                     |                          |                          |         |                          |               |
|                          |                     | Instream Veg:    | None <input type="checkbox"/> Algae <input checked="" type="checkbox"/> Moss <input type="checkbox"/> Vascular <input type="checkbox"/> |                          |                                     |                                     |                          |                          |                                     |                          |                          |         |                          |               |

## FLSH

| Site Number | Capture Method | Number of Events | Length fished (m) | Total Time | Voltage | Species | Total Fish | Minimum Length (mm) | Maximum Length (mm) |
|-------------|----------------|------------------|-------------------|------------|---------|---------|------------|---------------------|---------------------|
| 166         | EF             | 1                | 100               | 76 sec     | 600     | NFC     | 0          |                     |                     |

Roll# : 2, Frame# 5, CD# 1, Image# 30, Direction: U, SCALE/COMMENT: boot

Roll# : 2 , Frame# 6 , CD# 1 , Image# 31 , Direction: D , SCALE/COMMENT: cam bag

SITE CARD : site=UTM

**MORPHOLOGY :** Flows through 3m deep swale, sparsely forested by conifers.

**SPAWNING HABITAT :** None - too many fines.

**REARING HABITAT :** Unlikely due to acidic water and seasonal flow. Not suitable habitat for rainbow trout.

**OVERWINTERING HABITAT :** None - too shallow.

OTHER HABITAT : Small intermittent trickle dewatered mainly in steeper sections where gravel and cobble more abundant. In low gradient sections it is mainly stagnant pools and very slow flow, filled with algae.

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-85400-00000-0000-0000-000-000-000-000-000

2.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  | Local Name: |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Watershed Code: 480-927700-85400-00000-0000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  | ILP Map #:  |                                                                                                                                                                                                                                                        | ILP #:     |                                                                  |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Reach #: 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | UTM (Zone/East/North): 10.312236.6038111                                                                                                                                                                           |                   |                                                                                                                                                                                  |             | Sample Type: Biased                                                                                                                                                                                                                                    |            |                                                                  |                     |
| Length (km): 4.90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Coupling: Partially Coupl                                                                                                                                                                                          |                   | Magnitude: 11                                                                                                                                                                    |             | BGC Zone: SBS                                                                                                                                                                                                                                          |            |                                                                  |                     |
| Gradient (%): 0.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Confinement: Unconfined                                                                                                                                                                                            |                   | Order: 3                                                                                                                                                                         |             | Open water: Present                                                                                                                                                                                                                                    |            |                                                                  |                     |
| US Elev (m): 1038                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Islands: Occasional                                                                                                                                                                                                |                   | Riparian Vegetation: Wetland                                                                                                                                                     |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: Other                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Site #: 167                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Field UTM 10.314733.6038588                                                                                                                                                                                        |                   | Agency: C016                                                                                                                                                                     |             | Crew: MJ/MG                                                                                                                                                                                                                                            |            | Date: 2001-09-22                                                 |                     |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | GIS UTM..                                                                                                                                                                                                          |                   | Agency Name: FINS Consulting Ltd.                                                                                                                                                |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                    |                   | Avg                                                                                                                                                                              |             | Min                                                                                                                                                                                                                                                    |            | Max                                                              |                     |
| Dewatered: <input type="checkbox"/> Tribs.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Channel Width (m):                                                                                                                                                                                                 |                   | 3.50                                                                                                                                                                             |             | 3                                                                                                                                                                                                                                                      |            | 4                                                                |                     |
| Med <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Wetted Width (m):                                                                                                                                                                                                  |                   | 3.50                                                                                                                                                                             |             | 3                                                                                                                                                                                                                                                      |            | 4                                                                |                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Bankfull Depth (m):                                                                                                                                                                                                |                   | 0.63                                                                                                                                                                             |             | 0.6                                                                                                                                                                                                                                                    |            | 0.7                                                              |                     |
| Temp (C): 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | pH: 6.2                                                                                                                                                                                                            |                   | Conductivity: 50                                                                                                                                                                 |             | Turbidity: Turbid <input type="checkbox"/> Low <input checked="" type="checkbox"/>                                                                                                                                                                     |            | Moderate <input type="checkbox"/> Clear <input type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | D95 (cm): 0.01                                                                                                                                                                                                     |                   | Bars: Non <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |             | Subdominant: Not Applicable                                                                                                                                                                                                                            |            | D (cm): 0.01                                                     |                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Islands: Occasional                                                                                                                                                                                                |                   | DISTURBANCE INDICATORS                                                                                                                                                           |             | O1                                                                                                                                                                                                                                                     |            | B1 B2 B3 D1 D2 D3                                                |                     |
| Coupling: Partially Coupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Confinement: Occasionally Confine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Morphology: LC Large Channel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Total Cover: Moderate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Type: SWD LWD B U DP OV IV                                                                                                                                                                                         |                   | Amount: T T N S N T D                                                                                                                                                            |             | Location: P/S/O: <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> |            | FSZ: <input type="checkbox"/>                                    |                     |
| LWD: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| LWD Dist: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Right Bank: Shape: Sloping (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                   | Crown Closure                                                                                                                                                                    |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Left Bank: Shape: Sloping (                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                   | 1-20%                                                                                                                                                                            |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Right Bank: Rip.Veg: Wetland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Stage: Not Applicable                                                                                                                                                                                              |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Stage: Not Applicable                                                                                                                                                                                              |                   | Instream Veg: None <input type="checkbox"/> Algae <input checked="" type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input checked="" type="checkbox"/>      |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Capture Method | Number of Events                                                                                                                                                                                                   | Length fished (m) | Total Time                                                                                                                                                                       | Voltage     | Species                                                                                                                                                                                                                                                | Total Fish | Minimum Length (mm)                                              | Maximum Length (mm) |
| 167                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | EF             | 1                                                                                                                                                                                                                  | 20                | 38 sec                                                                                                                                                                           | 800         | LKC                                                                                                                                                                                                                                                    | 1          | 71                                                               | 71                  |
| 167                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MT             | 6                                                                                                                                                                                                                  |                   | 9330 min                                                                                                                                                                         |             | NFC                                                                                                                                                                                                                                                    | 0          |                                                                  |                     |
| 167                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MT             | 6                                                                                                                                                                                                                  |                   | 9330 min                                                                                                                                                                         |             | LKC                                                                                                                                                                                                                                                    | 324        | 41                                                               | 124                 |
| <p>Roll#: 4 , Frame# 10 , CD# 1 , Image# 83 , Direction: U , SCALE/COMMENT: culvert</p> <p>Roll#: 4 , Frame# 11 , CD# 1 , Image# 84 , Direction: D , SCALE/COMMENT: culvert</p> <p>SITE CARD : site=UTM</p> <p>SITE CARD : did this reach instead of reach 1.</p> <p>SITE CARD : Historically rainbow trout documented in this reach, but highly doubtful due to lack of suitable habitat! No rainbow trout captured in entire system.</p> <p>WATERBODY : Very deep - anode range not very effective. Abundant LKC in MT's, no other species present. Potentially not identified correctly in past.</p> <p>WATERBODY : NFC in MT3 which was located in CV outflow (suspected CT or LSU here due to faster water).</p> <p>OTHER HABITAT : Slow-flowing wetlandish reach with no salmonid habitat, no spawning, no rearing and no overwintering habitat. Good habitat for cyprinids.</p> |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                        |            |                                                                  |                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-85400-00000-0000-0000-000-000-000-000-000

3.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       | Local Name: |                                                                                                                                    |            |                                           |                     |
| Watershed Code: 480-927700-85400-00000-0000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       | ILP Map #:  |                                                                                                                                    | ILP #:     |                                           |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| Reach #: 3.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | UTM (Zone/East/North): 10.312007.6038186                                                                                                                                                                                                 |                   |                                                                                                                                                       |             | Sample Type: Biased                                                                                                                |            |                                           |                     |
| Length (km): .25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Coupling: Coupled                                                                                                                                                                                                                        |                   | Magnitude: 2                                                                                                                                          |             | BGC Zone: ESSF                                                                                                                     |            |                                           |                     |
| Gradient (%): 2.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Confinement: Frequently Confin                                                                                                                                                                                                           |                   | Order: 2                                                                                                                                              |             | Open water: Absent                                                                                                                 |            |                                           |                     |
| US Elev (m): 1044                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Islands: NONE                                                                                                                                                                                                                            |                   | Riparian Vegetation: Coniferous                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| Site #: 168                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Field UTM 10.312220.6038110                                                                                                                                                                                                              |                   | Agency: C016                                                                                                                                          |             | Crew: MJ/MG                                                                                                                        |            | Date: 2001-09-19                          |                     |
| Site Length (m): 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | GIS UTM..                                                                                                                                                                                                                                |                   | Agency Name: FINS Consulting Ltd.                                                                                                                     |             |                                                                                                                                    |            |                                           |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                          |                   | Avg                                                                                                                                                   |             | Min                                                                                                                                |            | Max                                       |                     |
| Dewatered: <input type="checkbox"/> Tribs.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                          |                   | 1.13                                                                                                                                                  |             | 0.800                                                                                                                              |            | 1.700                                     |                     |
| Stage: Low <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Channel Width (m):                                                                                                                                                                                                                       |                   | 6                                                                                                                                                     |             |                                                                                                                                    |            |                                           |                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Wetted Width (m):                                                                                                                                                                                                                        |                   | 0.45                                                                                                                                                  |             | 0                                                                                                                                  |            | 1.200                                     |                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Bankfull Depth (m):                                                                                                                                                                                                                      |                   | 0.30                                                                                                                                                  |             | 0.3                                                                                                                                |            | 0.3                                       |                     |
| Temp (C): 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | pH: 7.1                                                                                                                                                                                                                                  |                   | Conductivity: 70                                                                                                                                      |             |                                                                                                                                    |            |                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | Avg                                                                                                                                |            | Min                                       |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | 7.00                                                                                                                               |            | 4                                         |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | Max                                                                                                                                |            | 13                                        |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | #                                                                                                                                  |            | 4                                         |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | Pool Depth (m):                                                                                                                    |            | 0.53                                      |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | 0.53                                                                                                                               |            | 0.53                                      |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | 1                                                                                                                                  |            |                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | Turbidity: Turbid <input type="checkbox"/>                                                                                         |            | Low <input type="checkbox"/>              |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             | Moderate <input type="checkbox"/>                                                                                                  |            | Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| Bed Material: Dominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | D95 (cm): 20.00                                                                                                                                                                                                                          |                   | Bars: Non <input checked="" type="checkbox"/>                                                                                                         |             | Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |            |                                           |                     |
| Subdominant: Gravels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | D (cm): 4.00                                                                                                                                                                                                                             |                   |                                                                                                                                                       |             | Braid <input type="checkbox"/>                                                                                                     |            |                                           |                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Islands: None                                                                                                                                                                                                                            |                   | DISTURBANCE INDICATORS                                                                                                                                |             | O1 B1 B2 B3 D1 D2 D3                                                                                                               |            |                                           |                     |
| Coupling: Coupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| Confinement: Frequently Confined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                          |                   | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                         |             |                                                                                                                                    |            |                                           |                     |
| Morphology: CP Cascade Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| Total Cover: Trace                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Type: SWD LWD B U DP OV IV                                                                                                                                                                                                               |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Amount: N T S N D T T                                                                                                                                                                                                                    |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Location: P/S/O:                                                                                                                                                                                                                         |                   |                                                                                                                                                       |             |                                                                                                                                    |            | FSZ: <input type="checkbox"/>             |                     |
| Right Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                   | Crown Closure                                                                                                                                         |             |                                                                                                                                    |            |                                           |                     |
| Left Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                   | 21-40%                                                                                                                                                |             |                                                                                                                                    |            |                                           |                     |
| Right Bank: Rip.Veg: Shrubs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Stage: Not Applicable                                                                                                                                                                                                                    |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Stage: Not Applicable                                                                                                                                                                                                                    |                   | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/> |             |                                                                                                                                    |            |                                           |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Capture Method | Number of Events                                                                                                                                                                                                                         | Length fished (m) | Total Time                                                                                                                                            | Voltage     | Species                                                                                                                            | Total Fish | Minimum Length (mm)                       | Maximum Length (mm) |
| 168                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | EF             | 1                                                                                                                                                                                                                                        | 200               | 168 sec                                                                                                                                               | 600         | NFC                                                                                                                                | 0          |                                           |                     |
| Roll#: 2, Frame# 23, CD# 1, Image# 48, Direction: U, SCALE/COMMENT: cam bag<br>Roll#: 2, Frame# 24, CD# 1, Image# 49, Direction: D, SCALE/COMMENT: boot<br>SITE CARD : site=UTM<br>SITE CARD : Presence of freshwater shrimp indicates fish absence.<br>MORPHOLOGY : Flows through gully with shrubs.<br>SPAWNING HABITAT : None - angular substrate.<br>REARING HABITAT : Poor to fair - at present, almost no cover. Water trickles down between cobbles, some shallow pools.<br>OVERWINTERING HABITAT : None - just one pool.<br>COVER : Poor salmonid habitat - almost no cover, only 1 pool in entire 200m site length. |                |                                                                                                                                                                                                                                          |                   |                                                                                                                                                       |             |                                                                                                                                    |            |                                           |                     |

**BFP FFHI 2001 - Upper Pinkut Watershed**

| Reach # | ILP Map # | ILP # |
|---------|-----------|-------|
|---------|-----------|-------|

## 5.0

|                                                                       |  |             |        |
|-----------------------------------------------------------------------|--|-------------|--------|
| Gazetted Name:                                                        |  | Local Name: |        |
| Watershed Code: 480-927700-85400-00000-00000-0000-000-000-000-000-000 |  | ILP Map #:  | ILP #: |

### REACH

|                    |                                         |                                 |
|--------------------|-----------------------------------------|---------------------------------|
| Reach #: 5.0       | UTM(Zone/East/North): 10.311222.6039218 | Sample Type: Biased             |
| Length (km): .73   | Coupling: Partially Coupl               | Magnitude: 1                    |
| Gradient (%): 10.0 | Confinement: Frequently Confin          | Order: 1                        |
| US Elev (m): 1136  | Islands: NONE                           | Riparian Vegetation: Coniferous |

Bars: None ☒ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ Landuse: Logging, to banks

### SITE

|                      |                             |                                   |             |                  |
|----------------------|-----------------------------|-----------------------------------|-------------|------------------|
| Site #: 169          | Field UTM 10.311102.6038588 | Agency: C016                      | Crew: MJ/MG | Date: 2001-09-19 |
| Site Length (m): 150 | GIS UTM..                   | Agency Name: FINS Consulting Ltd. |             |                  |

### CHANNEL

|                                                 |                                        |  |  |  |  |
|-------------------------------------------------|----------------------------------------|--|--|--|--|
| No Vis.Ch.: <input checked="" type="checkbox"/> | Intermittent: <input type="checkbox"/> |  |  |  |  |
| Dewatered: <input type="checkbox"/>             | Tribs.: <input type="checkbox"/>       |  |  |  |  |

|                     |      |     |     |   |
|---------------------|------|-----|-----|---|
|                     | Avg  | Min | Max | # |
| Channel Width (m):  | 0.00 | 0   | 0   | 0 |
| Wetted Width (m):   | 0.00 | 0   | 0   | 0 |
| Bankfull Depth (m): | 0.00 | 0   | 0   | 0 |

|                 |      |     |     |   |
|-----------------|------|-----|-----|---|
|                 | Avg  | Min | Max | # |
| Gradient %:     | 0.00 | 0   | 0   | 0 |
| Pool Depth (m): | 0.00 | 0   | 0   | 0 |

Stage: Low ☐  
Med ☐  
High ☐

Temp (C):      pH:      Conductivity:      Turbidity: Turbid ☐ Low ☐  
Moderate ☐ Clear ☐

### MORPHOLOGY

|                         |           |                                                                                                                                                                       |
|-------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bed Material: Dominant: | D95 (cm): | Bars: Non <input type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |
| Subdominant:            | D (cm):   | Braid <input type="checkbox"/>                                                                                                                                        |

|                  |          |                               |
|------------------|----------|-------------------------------|
| Channel Pattern: | Islands: | DISTURBANCE INDICATORS        |
| Coupling:        |          | O1 B1 B2 B3 D1 D2 D3          |
| Confinement:     |          | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 |
| Morphology:      |          |                               |

### COVER

|              |                  |     |     |   |   |    |    |    |
|--------------|------------------|-----|-----|---|---|----|----|----|
| Total Cover: | Type:            | SWD | LWD | B | U | DP | OV | IV |
| LWD:         | Amount:          |     |     |   |   |    |    |    |
| LWD Dist:    | Location: P/S/O: |     |     |   |   |    |    |    |

Right Bank: Shape:      Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐      Crown Closure

Left Bank: Shape:      Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg:      Stage:      Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

Left Bank: Rip.Veg:      Stage:

**SITE CARD : site=UTM**

**SITE CARD : Two seepages, 50m apart.**

**OTHER HABITAT : Seepage with only intermittent channel, no fluvium, no continuous banks or stream bed. Not an FPC stream.**

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # ILP Map # ILP #

2.0 093K.041 41013

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------|--------------------------|-----------------------------------------------------------------------------|---------------------|-------|-----|-----|---|---|----|----|----|---------|---|---|---|---|---|---|---|------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  | Local Name:              |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  | ILP Map #: 093K.041      |                                     | ILP #: 41013             |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Reach #: 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     | UTM(Zone/East/North): 10.314286.6039303                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                                                                                                                                  |                          | Sample Type: Biased                 |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Length (km): .53                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     | Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | Magnitude: 5                                                                                                                                                                     |                          | BGC Zone: ESSF                      |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Gradient (%): 0.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     | Confinement: Occasionally Con                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | Order: 2                                                                                                                                                                         |                          | Open water: Absent                  |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| US Elev (m): 1038                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     | Islands: NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | Riparian Vegetation: Coniferous                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: Logging, with reserves                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Site #: 170                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     | Field UTM 10.314691.6039558                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Agency: C016                                                                                                                                                                     |                          | Crew: MJ/MG                         |                          | Date: 2001-09-19                                                            |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     | GIS UTM..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | Agency Name: FINS Consulting Ltd.                                                                                                                                                |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | Avg                                                                                                                                                                              |                          | Min                                 |                          | Max                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Dewatered: <input type="checkbox"/> Tribs.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | Channel Width (m): 1.38                                                                                                                                                          |                          | 1.100                               |                          | 1.600                                                                       |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Stage: Low <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | Wetted Width (m): 0.58                                                                                                                                                           |                          | 0.300                               |                          | 0.9                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | Bankfull Depth (m): 0.37                                                                                                                                                         |                          | 0.3                                 |                          | 0.4                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     | Temp (C): 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | pH: 7.4                                                                                                                                                                          |                          | Conductivity: 50                    |                          | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Bed Material: Dominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | D95 (cm): 12.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | Bars: Non <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |                          | Braid <input type="checkbox"/>      |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Subdominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     | D (cm): 3.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Channel Pattern: Irregular, Wandering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | Islands: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | DISTURBANCE INDICATORS                                                                                                                                                           |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | O1 B1 B2 B3 D1 D2 D3                                                                                                                                                             |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Confinement: Occasionally Confine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                                                    |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Morphology: RP Riffle Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Total Cover: Moderate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Type:</th> <th>SWD</th> <th>LWD</th> <th>B</th> <th>U</th> <th>DP</th> <th>OV</th> <th>IV</th> </tr> </thead> <tbody> <tr> <td>Amount:</td> <td>T</td> <td>N</td> <td>T</td> <td>S</td> <td>D</td> <td>S</td> <td>T</td> </tr> <tr> <td>Location: P/S/O:</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     | Type: | SWD | LWD | B | U | DP | OV | IV | Amount: | T | N | T | S | D | S | T | Location: P/S/O: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Type:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SWD                                 | LWD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | B                        | U                                                                                                                                                                                | DP                       | OV                                  | IV                       |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Amount:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | T                                   | N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | T                        | S                                                                                                                                                                                | D                        | S                                   | T                        |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Location: P/S/O:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <input type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                                                              | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| LWD: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | FSZ: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| LWD Dist: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Right Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                |                          | Crown Closure                                                                                                                                                                    |                          |                                     |                          | 41-70%                                                                      |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Right Bank: Rip.Veg: Shrubs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     | Stage: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | Instream Veg: None <input type="checkbox"/> Algae <input checked="" type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/>                 |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     | Stage: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Capture Method                      | Number of Events                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Length fished (m)        | Total Time                                                                                                                                                                       | Voltage                  | Species                             | Total Fish               | Minimum Length (mm)                                                         | Maximum Length (mm) |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| 170                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | EF                                  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 150                      | 187 sec                                                                                                                                                                          | 700                      | NFC                                 | 0                        |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |
| <p>Roll#: 2, Frame# 19, CD# 1, Image# 44, Direction: U, SCALE/COMMENT: Mac</p> <p>Roll#: 2, Frame# 20, CD# 1, Image# 45, Direction: D, SCALE/COMMENT: mg</p> <p>SITE CARD : site=UTM</p> <p>SITE CARD : potential access problem from parent stream due to wetland in reach 1.</p> <p>SITE CARD : Approximately 1cm thick detritus on substrate.</p> <p>MORPHOLOGY : Flows through 15m wide valley in incised channel with abundant overstream vegetation.</p> <p>SPAWNING HABITAT : Generally lacks spawning habitat although some scattered gravel patches observed. But fines further inhibit spawning potential.</p> <p>REARING HABITAT : Good at higher flow but pretty limited now to very few deeper pools.</p> <p>OVERWINTERING HABITAT : None - too shallow and lacks any significant flow.</p> <p>OTHER HABITAT : Low to moderate year-round habitat value for rainbow trout.</p> |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                                                  |                          |                                     |                          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                          |                          |                                     |                          |                                     |                          |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # ILP Map # ILP #

4.0 093K.041 41013

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------------------------------------------------|---------------------|-------|-----|-----|---|---|----|----|----|---------|---|---|---|---|---|---|---|------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  | Local Name:                         |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Watershed Code: 000-000000-00000-00000-00000-00000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  | ILP Map #: 093K.041                 |                                     | ILP #: 41013                        |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Reach #: 4.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | UTM (Zone/East/North): 10.313620.6039695                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |                                                                                                                                                                                  |                                     | Sample Type: Biased                 |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Length (km): .19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     | Coupling: Partially Coupl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     | Magnitude: 2                                                                                                                                                                     |                                     | BGC Zone: ESSF                      |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Gradient (%): 1.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     | Confinement: Frequently Confin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     | Order: 2                                                                                                                                                                         |                                     | Open water: Absent                  |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| US Elev (m): 1060                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     | Islands: NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     | Riparian Vegetation: Coniferous                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: Logging, with reserves                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Site #: 171                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | Field UTM 10.313752.6039616                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | Agency: C016                                                                                                                                                                     |                                     | Crew: MJ/MG                         |                                     | Date: 2001-09-19                                                            |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Site Length (m): 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | GIS UTM..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     | Agency Name: FINS Consulting Ltd.                                                                                                                                                |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Avg                                                                                                                                                                              |                                     | Min                                 |                                     | Max                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Dewatered: <input type="checkbox"/> Tribes.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Channel Width (m):                                                                                                                                                               |                                     | 1.05                                |                                     | 0.600                                                                       |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Stage: Low <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Wetted Width (m):                                                                                                                                                                |                                     | 0.78                                |                                     | 0.300                                                                       |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Bankfull Depth (m):                                                                                                                                                              |                                     | 0.30                                |                                     | 0.3                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     | Temp (C): 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | pH: 7.2                                                                                                                                                                          |                                     | Conductivity: 50                    |                                     | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Bed Material: Dominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     | D95 (cm): 25.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Bars: Non <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |                                     | Braid <input type="checkbox"/>      |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Subdominant: Gravels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | D (cm): 3.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     | Islands: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     | DISTURBANCE INDICATORS                                                                                                                                                           |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Coupling: Coupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | O1 B1 B2 B3 D1 D2 D3                                                                                                                                                             |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Confinement: Confined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                                                    |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Morphology: SP Step Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Type:</th> <th>SWD</th> <th>LWD</th> <th>B</th> <th>U</th> <th>DP</th> <th>OV</th> <th>IV</th> </tr> <tr> <td>Amount:</td> <td>T</td> <td>T</td> <td>S</td> <td>T</td> <td>D</td> <td>T</td> <td>T</td> </tr> <tr> <td>Location: P/S/O:</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table> |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     | Type: | SWD | LWD | B | U | DP | OV | IV | Amount: | T | T | S | T | D | T | T | Location: P/S/O: | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Type:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SWD                                 | LWD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | B                                   | U                                                                                                                                                                                | DP                                  | OV                                  | IV                                  |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Amount:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | T                                   | T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | S                                   | T                                                                                                                                                                                | D                                   | T                                   | T                                   |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Location: P/S/O:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                                                              | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     | FSZ: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Right Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     | Crown Closure                                                                                                                                                                    |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Left Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     | 21-40%                                                                                                                                                                           |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Right Bank: Rip.Veg: Coniferous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Stage: Mature forest                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | Instream Veg: None <input type="checkbox"/> Algae <input checked="" type="checkbox"/> Moss <input type="checkbox"/> Vascular <input type="checkbox"/>                            |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     | Stage: Mature forest                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| FEATURES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| NID Map                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | NID                                 | Type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Hgt                                 | Method                                                                                                                                                                           | Lg                                  | Method                              | Photo                               |                                                                             | AirPhoto            |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| 93K.041                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 31711                               | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.5                                 | GE                                                                                                                                                                               | 6                                   | HC                                  | R: 2                                | F: 16                                                                       | L: #                |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Comments: 27% slope, impassable to fish.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Capture Method                      | Number of Events                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Length fished (m)                   | Total Time                                                                                                                                                                       | Voltage                             | Species                             | Total Fish                          | Minimum Length (mm)                                                         | Maximum Length (mm) |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| 171                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EF                                  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 60                                  | 98 sec                                                                                                                                                                           | 700                                 | NFC                                 | 0                                   |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| <p>Roll#: 2, Frame# 16, CD# 1, Image# 41, Direction: U, SCALE/COMMENT: mg - cascade in features.</p> <p>Roll#: 2, Frame# 17, CD# 1, Image# 42, Direction: U, SCALE/COMMENT: boot</p> <p>Roll#: 2, Frame# 18, CD# 1, Image# 43, Direction: D, SCALE/COMMENT: cam bag</p> <p>SITE CARD: site=UTM</p> <p>SITE CARD: Unlikely fish use due to wetland in reach 1 and 3 - impedes fish access from parent stream.</p> <p>MORPHOLOGY: Water dissipates at lower reach boundary, but flow from cascade d/s in steeper gradient section.</p> <p>MORPHOLOGY: Flows through gully. Only 60m watered section.</p> <p>SPAWNING HABITAT: Gravel frequent in pool areas.</p> <p>REARING HABITAT: Good.</p> <p>OVERWINTERING HABITAT: Pools suitable for overwintering habitat.</p> <p>OTHER HABITAT: Nice creek below cascade, has good habitat year-round.</p> |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                                                  |                                     |                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-85400-27100-0000-0000-000-000-000-000-000

1.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------|------------|------------------------------------------------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  | Local Name: |                          |            |                                                                                    |                     |
| Watershed Code: 480-927700-85400-27100-0000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  | ILP Map #:  |                          | ILP #:     |                                                                                    |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| Reach #: 1.0                                                                                                                                                                                                                                                                                                                                                                                                                               |                | UTM (Zone/East/North): 10.314575.6038257                                                                                                                                                                           |                   |                                                                                                                                                                                  |             | Sample Type: Biased      |            |                                                                                    |                     |
| Length (km): .16                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Coupling: Decoupled                                                                                                                                                                                                |                   | Magnitude: 1                                                                                                                                                                     |             | BGC Zone: ESSF           |            |                                                                                    |                     |
| Gradient (%): 8.1                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Confinement: Occasionally Con                                                                                                                                                                                      |                   | Order: 1                                                                                                                                                                         |             | Open water: Absent       |            |                                                                                    |                     |
| US Elev (m): 1033                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Islands: NONE                                                                                                                                                                                                      |                   | Riparian Vegetation: Shrubs                                                                                                                                                      |             |                          |            |                                                                                    |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                     |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| Site #: 172                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Field UTM 10.314598.6038364                                                                                                                                                                                        |                   | Agency: C016                                                                                                                                                                     |             | Crew: MJ/MG              |            | Date: 2001-09-22                                                                   |                     |
| Site Length (m): 100                                                                                                                                                                                                                                                                                                                                                                                                                       |                | GIS UTM..                                                                                                                                                                                                          |                   | Agency Name: FINS Consulting Ltd.                                                                                                                                                |             |                          |            |                                                                                    |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                |                |                                                                                                                                                                                                                    |                   | Avg                                                                                                                                                                              |             | Min                      |            | Max                                                                                |                     |
| Dewatered: <input type="checkbox"/> Tribes.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                    |                   | Channel Width (m): 1.10                                                                                                                                                          |             | 0.7                      |            | 1.600                                                                              |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                                                                                                                                                                                    |                   | Wetted Width (m): 1.07                                                                                                                                                           |             | 0.7                      |            | 1.5                                                                                |                     |
| Med <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                                                                                                                                                                                    |                   | Bankfull Depth (m): 0.17                                                                                                                                                         |             | 0.1                      |            | 0.2                                                                                |                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                              |                | Temp (C): 8                                                                                                                                                                                                        |                   | pH: 6.9                                                                                                                                                                          |             | Conductivity: 40         |            | Turbidity: Turbid <input type="checkbox"/> Low <input checked="" type="checkbox"/> |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            | Moderate <input type="checkbox"/> Clear <input type="checkbox"/>                   |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                              |                | D95 (cm): 0.01                                                                                                                                                                                                     |                   | Bars: Non <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |             |                          |            | Braid <input type="checkbox"/>                                                     |                     |
| Subdominant: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                |                | D (cm): 0.01                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Islands: None                                                                                                                                                                                                      |                   | DISTURBANCE                                                                                                                                                                      |             | O1                       |            | B1                                                                                 |                     |
| Coupling: Partially Coupled                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                                                                                                                                                                    |                   | INDICATORS                                                                                                                                                                       |             | B2                       |            | B3                                                                                 |                     |
| Confinement: Frequently Confined                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                    |                   | C1                                                                                                                                                                               |             | C2                       |            | C3                                                                                 |                     |
| Morphology: LC Large Channel                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                    |                   | C4                                                                                                                                                                               |             | C5                       |            | S1                                                                                 |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                    |                   | S2                                                                                                                                                                               |             | S3                       |            | S4                                                                                 |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                    |                   | S5                                                                                                                                                                               |             |                          |            |                                                                                    |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Type: SWD                                                                                                                                                                                                          |                   | LWD                                                                                                                                                                              |             | B                        |            | U                                                                                  |                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Amount: T                                                                                                                                                                                                          |                   | T                                                                                                                                                                                |             | N                        |            | T                                                                                  |                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                               |                | Location: P/S/O: <input checked="" type="checkbox"/>                                                                                                                                                               |                   | <input checked="" type="checkbox"/>                                                                                                                                              |             | <input type="checkbox"/> |            | <input type="checkbox"/>                                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| Right Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                               |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                   | Crown Closure                                                                                                                                                                    |             |                          |            |                                                                                    |                     |
| Left Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                   | 41-70%                                                                                                                                                                           |             |                          |            |                                                                                    |                     |
| Right Bank: Rip.Veg: Shrubs                                                                                                                                                                                                                                                                                                                                                                                                                |                | Stage: Not Applicable                                                                                                                                                                                              |                   | Instream Veg: None <input type="checkbox"/> Algae <input checked="" type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/>                 |             |                          |            |                                                                                    |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Stage: Not Applicable                                                                                                                                                                                              |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                | Capture Method | Number of Events                                                                                                                                                                                                   | Length fished (m) | Total Time                                                                                                                                                                       | Voltage     | Species                  | Total Fish | Minimum Length (mm)                                                                | Maximum Length (mm) |
| 172                                                                                                                                                                                                                                                                                                                                                                                                                                        | EF             | 1                                                                                                                                                                                                                  | 100               | 105 sec                                                                                                                                                                          | 600         | NFC                      | 0          |                                                                                    |                     |
| <p>Roll#: 4, Frame# 5, CD# 1, Image# 78, Direction: U, SCALE/COMMENT: cam bag</p> <p>Roll#: 4, Frame# 6, CD# 1, Image# 79, Direction: BD, SCALE/COMMENT: cam bag</p> <p>SITE CARD: site=UTM</p> <p>MORPHOLOGY: Flows through gully with dense willow shrub along banks.</p> <p>OTHER HABITAT: No salmonid habitat - stream filled with orange algae, likely seasonal, flows after intense 2 day rainfall. 2-3cm deep water over algae.</p> |                |                                                                                                                                                                                                                    |                   |                                                                                                                                                                                  |             |                          |            |                                                                                    |                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # ILP Map # ILP #  
1.0 093K.041 41019

| STREAM REFERENCING                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------|--|
| Gazetted Name:                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       | Local Name:         |                                                                         |              |                                                                                                                                            |  |
| Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000                                                                                                                                                                                                                               |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       | ILP Map #: 093K.041 |                                                                         | ILP #: 41019 |                                                                                                                                            |  |
| REACH                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| Reach #: 1.0                                                                                                                                                                                                                                                                                      |  | UTM(Zone/East/North): 10.313775.6038040                                                                                                                                                                 |  |                                                                                                                                                                       |                     | Sample Type: Biased                                                     |              |                                                                                                                                            |  |
| Length (km): .73                                                                                                                                                                                                                                                                                  |  | Coupling: Partially Coupl                                                                                                                                                                               |  | Magnitude: 1                                                                                                                                                          |                     | BGC Zone: ESSF                                                          |              |                                                                                                                                            |  |
| Gradient (%): 2.7                                                                                                                                                                                                                                                                                 |  | Confinement: Frequently Confin                                                                                                                                                                          |  | Order: 1                                                                                                                                                              |                     | Open water: Absent                                                      |              |                                                                                                                                            |  |
| US Elev (m): 1040                                                                                                                                                                                                                                                                                 |  | Islands: NONE                                                                                                                                                                                           |  | Riparian Vegetation: Shrubs                                                                                                                                           |                     |                                                                         |              |                                                                                                                                            |  |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                            |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| SITE                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| Site #: 173                                                                                                                                                                                                                                                                                       |  | Field UTM 10.314233.6038457                                                                                                                                                                             |  | Agency: C016                                                                                                                                                          |                     | Crew: MJ/MG                                                             |              | Date: 2001-09-22                                                                                                                           |  |
| Site Length (m): 100                                                                                                                                                                                                                                                                              |  | GIS UTM..                                                                                                                                                                                               |  | Agency Name: FINS Consulting Ltd.                                                                                                                                     |                     |                                                                         |              |                                                                                                                                            |  |
| CHANNEL                                                                                                                                                                                                                                                                                           |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| No Vis.Ch.: <input checked="" type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                            |  |                                                                                                                                                                                                         |  | Avg                                                                                                                                                                   |                     | Min                                                                     |              | Max                                                                                                                                        |  |
| Dewatered: <input type="checkbox"/> Tribes.: <input type="checkbox"/>                                                                                                                                                                                                                             |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                               |  | Channel Width (m):                                                                                                                                                                                      |  | 0.00                                                                                                                                                                  |                     | 0                                                                       |              | 0                                                                                                                                          |  |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                      |  | Wetted Width (m):                                                                                                                                                                                       |  | 0.00                                                                                                                                                                  |                     | 0                                                                       |              | 0                                                                                                                                          |  |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                     |  | Bankfull Depth (m):                                                                                                                                                                                     |  | 0.00                                                                                                                                                                  |                     | 0                                                                       |              | 0                                                                                                                                          |  |
| Temp (C):                                                                                                                                                                                                                                                                                         |  | pH:                                                                                                                                                                                                     |  | Conductivity:                                                                                                                                                         |                     | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/> |              | Moderate <input type="checkbox"/> Clear <input type="checkbox"/>                                                                           |  |
| MORPHOLOGY                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| Bed Material: Dominant:                                                                                                                                                                                                                                                                           |  | D95 (cm):                                                                                                                                                                                               |  | Bars: Non <input type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |                     |                                                                         |              |                                                                                                                                            |  |
| Subdominant:                                                                                                                                                                                                                                                                                      |  | D (cm):                                                                                                                                                                                                 |  |                                                                                                                                                                       |                     | Braid <input type="checkbox"/>                                          |              |                                                                                                                                            |  |
| Channel Pattern:                                                                                                                                                                                                                                                                                  |  | Islands:                                                                                                                                                                                                |  | DISTURBANCE INDICATORS                                                                                                                                                |                     |                                                                         |              |                                                                                                                                            |  |
| Coupling:                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                         |  | O1 B1 B2 B3 D1 D2 D3                                                                                                                                                  |                     |                                                                         |              |                                                                                                                                            |  |
| Confinement:                                                                                                                                                                                                                                                                                      |  |                                                                                                                                                                                                         |  | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                                         |                     |                                                                         |              |                                                                                                                                            |  |
| Morphology:                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| COVER                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| Total Cover:                                                                                                                                                                                                                                                                                      |  | Type:                                                                                                                                                                                                   |  | SWD                                                                                                                                                                   |                     | LWD                                                                     |              | B                                                                                                                                          |  |
| LWD:                                                                                                                                                                                                                                                                                              |  | Amount:                                                                                                                                                                                                 |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| LWD Dist:                                                                                                                                                                                                                                                                                         |  | Location: P/S/O:                                                                                                                                                                                        |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| Right Bank: Shape:                                                                                                                                                                                                                                                                                |  | Texture: Fines <input type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |  |                                                                                                                                                                       |                     |                                                                         |              | Crown Closure                                                                                                                              |  |
| Left Bank: Shape:                                                                                                                                                                                                                                                                                 |  | Texture: Fines <input type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| Right Bank: Rip.Veg:                                                                                                                                                                                                                                                                              |  | Stage:                                                                                                                                                                                                  |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                               |  | Stage:                                                                                                                                                                                                  |  |                                                                                                                                                                       |                     |                                                                         |              | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input type="checkbox"/> Vascular <input type="checkbox"/> |  |
| <p>SITE CARD : site=UTM</p> <p>MORPHOLOGY : 10m wide valley vegetated by willows and sparse conifers.</p> <p>OTHER HABITAT : Seepage - no fish habitat. No water, no channel, no fluvium - not an FPC stream. Just isolated mudholes - dry, no sign of water even after 2 days of heavy rain.</p> |  |                                                                                                                                                                                                         |  |                                                                                                                                                                       |                     |                                                                         |              |                                                                                                                                            |  |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # ILP Map # ILP #

3.0 093K.041 41020

## STREAM REFERENCING

Gazetted Name:

Local Name:

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

ILP Map #: 093K.041

ILP #: 41020

## REACH

Reach #: 3.0

UTM (Zone/East/North): 10.313151.6038795

Sample Type: Random

Length (km): .87

Coupling: Decoupled

Magnitude: 1

BGC Zone: ESSF

Gradient (%): 2.3

Confinement: Occasionally Con

Order: 1

Open water: Absent

US Elev (m): 1060

Islands: NONE

Riparian Vegetation: Shrubs

Bars: None ☒ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ Landuse: None/natural

## SITE

Site #: 174

Field UTM 10.313858.6038971

Agency: C016

Crew: MJ/MG

Date: 2001-09-22

Site Length (m): 100

GIS UTM..

Agency Name: FINS Consulting Ltd.

## CHANNEL

No Vis.Ch.: ☒ Intermittent: ☐

Dewatered: ☐ Tribs.: ☐

Stage: Low ☐

Med ☐

High ☐

Temp (C): 9

pH: 6.2

Conductivity: 40

|                     | Avg  | Min | Max | # |
|---------------------|------|-----|-----|---|
| Channel Width (m):  | 0.00 | 0   | 0   | 0 |
| Wetted Width (m):   | 0.00 | 0   | 0   | 0 |
| Bankfull Depth (m): | 0.00 | 0   | 0   | 0 |

|                 | Avg  | Min | Max | # |
|-----------------|------|-----|-----|---|
| Gradient %:     | 0.00 | 0   | 0   | 0 |
| Pool Depth (m): | 0.00 | 0   | 0   | 0 |

Turbidity.: Turbid ☐ Low ☐

Moderate ☐ Clear ☒

## MORPHOLOGY

Bed Material: Dominant:

D95 (cm):

Bars: Non ☐

Side ☐

Diagonal ☐

Mid-channel ☐

Span ☐

Subdominant:

D (cm):

Braid ☐

Channel Pattern:

Islands:

DISTURBANCE

O1 B1 B2 B3 D1 D2 D3

Coupling:

Confinement:

Morphology:

C1 C2 C3 C4 C5 S1 S2 S3 S4 S5

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

## COVER

Total Cover:

LWD:

LWD Dist:

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

FSZ: ☐

Right Bank: Shape:

Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Crown Closure

Left Bank: Shape:

Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐

Right Bank: Rip.Veg:

Stage:

Left Bank: Rip.Veg:

Stage:

Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐

## FISH

| Site Number | Capture Method | Number of Events | Length fished (m) | Total Time | Voltage | Species | Total Fish | Minimum Length (mm) | Maximum Length (mm) |
|-------------|----------------|------------------|-------------------|------------|---------|---------|------------|---------------------|---------------------|
| 174         | EF             | 1                | 100               | 127 sec    | 500     | NFC     | 0          |                     |                     |

Roll#: 4, Frame# 12, CD# 1, Image# 85, Direction: X, SCALE/COMMENT: boot

SITE CARD: site=UTM

MORPHOLOGY: Shrubby corridor (mostly willows)

WATERBODY: Sampled puddles of water.

OTHER HABITAT: Seepage with no fish habitat - isolated puddles of water after heavy rain. No flow, no fluvium, no channel - not an FPC stream.

OTHER HABITAT : No salmonid habitat - channel filled with instream vegetation, very slow flow. Vegetation mat around 40-50cm thick in channel.

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-85400-48400-2600-0000-000-000-000-000-000

1.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                   |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------|-------------------|-----------------------------------------------|-------------|----------------------------------------------|------------|-----------------------------------------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                       |                |                                                    |                   |                                               | Local Name: |                                              |            |                                                                             |                     |
| Watershed Code: 480-927700-85400-48400-2600-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                 |                |                                                    |                   |                                               | ILP Map #:  |                                              | ILP #:     |                                                                             |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |
| Reach #: 1.0                                                                                                                                                                                                                                                                                                                                                         |                | UTM (Zone/East/North): 10.314190.6037588           |                   |                                               |             | Sample Type: Biased                          |            |                                                                             |                     |
| Length (km): .68                                                                                                                                                                                                                                                                                                                                                     |                | Coupling: Decoupled                                |                   | Magnitude: 2                                  |             | BGC Zone: ESSF                               |            |                                                                             |                     |
| Gradient (%): 1.6                                                                                                                                                                                                                                                                                                                                                    |                | Confinement: Unconfined                            |                   | Order: 2                                      |             | Open water: Absent                           |            |                                                                             |                     |
| US Elev (m): 1037                                                                                                                                                                                                                                                                                                                                                    |                | Islands: None Visible                              |                   | Riparian Vegetation: Wetland                  |             |                                              |            |                                                                             |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                               |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                 |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |
| Site #: 176                                                                                                                                                                                                                                                                                                                                                          |                | Field UTM 10.313735.6037760                        |                   | Agency: C016                                  |             | Crew: MJ/MG                                  |            | Date: 2001-09-22                                                            |                     |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                 |                | GIS UTM..                                          |                   | Agency Name: FINS Consulting Ltd.             |             |                                              |            |                                                                             |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                              |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                 |                | Intermittent: <input type="checkbox"/>             |                   | Avg                                           |             | Min                                          |            | Max                                                                         |                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                  |                | Tribes.: <input type="checkbox"/>                  |                   | Channel Width (m): 2.00                       |             | 2                                            |            | 2                                                                           |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                  |                |                                                    |                   | Wetted Width (m): 2.00                        |             | 2                                            |            | 1                                                                           |                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                         |                |                                                    |                   | Bankfull Depth (m): 0.17                      |             | 0.1                                          |            | 0.2                                                                         |                     |
| High <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                             |                | Temp (C): 9                                        |                   | pH: 6.3                                       |             | Conductivity: 40                             |            | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |                     |
|                                                                                                                                                                                                                                                                                                                                                                      |                |                                                    |                   |                                               |             |                                              |            | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                           |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                        |                | D95 (cm): 0.01                                     |                   | Bars: Non <input checked="" type="checkbox"/> |             | Side <input type="checkbox"/>                |            | Diagonal <input type="checkbox"/>                                           |                     |
| Subdominant: Not Applicable                                                                                                                                                                                                                                                                                                                                          |                | D (cm): 0.01                                       |                   |                                               |             | Mid-channel <input type="checkbox"/>         |            | Span <input type="checkbox"/>                                               |                     |
| Channel Pattern: Irregular Meanders                                                                                                                                                                                                                                                                                                                                  |                | Islands: None                                      |                   | DISTURBANCE                                   |             | O1                                           |            | B1                                                                          |                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                  |                |                                                    |                   | INDICATORS                                    |             | <input checked="" type="checkbox"/>          |            | <input type="checkbox"/>                                                    |                     |
| Confinement: Unconfined                                                                                                                                                                                                                                                                                                                                              |                |                                                    |                   | C1                                            |             | C2                                           |            | C3                                                                          |                     |
| Morphology: LC Large Channel                                                                                                                                                                                                                                                                                                                                         |                |                                                    |                   | C4                                            |             | C5                                           |            | S1                                                                          |                     |
|                                                                                                                                                                                                                                                                                                                                                                      |                |                                                    |                   | S2                                            |             | S3                                           |            | S4                                                                          |                     |
|                                                                                                                                                                                                                                                                                                                                                                      |                |                                                    |                   | S5                                            |             |                                              |            |                                                                             |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |
| Total Cover: Trace                                                                                                                                                                                                                                                                                                                                                   |                | Type: SWD                                          |                   | LWD                                           |             | B                                            |            | U                                                                           |                     |
| LWD: None                                                                                                                                                                                                                                                                                                                                                            |                | Amount: N                                          |                   | N                                             |             | N                                            |            | N                                                                           |                     |
| LWD Dist: Not Applicable                                                                                                                                                                                                                                                                                                                                             |                | Location: P/S/O:                                   |                   | <input type="checkbox"/>                      |             | <input type="checkbox"/>                     |            | <input type="checkbox"/>                                                    |                     |
|                                                                                                                                                                                                                                                                                                                                                                      |                |                                                    |                   | <input type="checkbox"/>                      |             | <input type="checkbox"/>                     |            | <input type="checkbox"/>                                                    |                     |
| Right Bank: Shape: Sloping (                                                                                                                                                                                                                                                                                                                                         |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input type="checkbox"/>               |             | Cobble <input type="checkbox"/>              |            | Boulder <input type="checkbox"/>                                            |                     |
| Left Bank: Shape: Sloping (                                                                                                                                                                                                                                                                                                                                          |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input type="checkbox"/>               |             | Cobble <input type="checkbox"/>              |            | Boulder <input type="checkbox"/>                                            |                     |
| Right Bank: Rip.Veg: Wetland                                                                                                                                                                                                                                                                                                                                         |                | Stage: Not Applicable                              |                   | Instream Veg: None <input type="checkbox"/>   |             | Algae <input checked="" type="checkbox"/>    |            | Moss <input checked="" type="checkbox"/>                                    |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                  |                | Stage: Not Applicable                              |                   |                                               |             | Vascular <input checked="" type="checkbox"/> |            |                                                                             |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                 |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                          | Capture Method | Number of Events                                   | Length fished (m) | Total Time                                    | Voltage     | Species                                      | Total Fish | Minimum Length (mm)                                                         | Maximum Length (mm) |
| 176                                                                                                                                                                                                                                                                                                                                                                  | EF             | 1                                                  | 150               | 129 sec                                       | 600         | LKC                                          | 1          | 53                                                                          | 53                  |
| <p>Roll#: 4, Frame# 9, CD# 1, Image# 82, Direction: U, SCALE/COMMENT: boot</p> <p>SITE CARD: site=UTM</p> <p>MORPHOLOGY: Flows through wetland with shallow channel and no distinct banks.</p> <p>OTHER HABITAT: No salmonid habitat - acidic water, drains wetland, no spawning, rearing or overwintering habitat. Cyprinids not abundant in this reach either.</p> |                |                                                    |                   |                                               |             |                                              |            |                                                                             |                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # 2.0 ILP Map # 093K.041 ILP # 41023

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------|--------------|------------------------------------------------------------------------------------------------------|--|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       | Local Name:         |                               |              |                                                                                                      |  |
| Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       | ILP Map #: 093K.041 |                               | ILP #: 41023 |                                                                                                      |  |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Reach #: 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | UTM (Zone/East/North): 10.312055.6038843                                                                                                                                                                                      |  |                                                                                                                                                       |                     | Sample Type: Biased           |              |                                                                                                      |  |
| Length (km): 1.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | Coupling: Partially Coupl                                                                                                                                                                                                     |  | Magnitude: 1                                                                                                                                          |                     | BGC Zone: ESSF                |              |                                                                                                      |  |
| Gradient (%): 4.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | Confinement: Frequently Confin                                                                                                                                                                                                |  | Order: 1                                                                                                                                              |                     | Open water: Absent            |              |                                                                                                      |  |
| US Elev (m): 1099                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | Islands: NONE                                                                                                                                                                                                                 |  | Riparian Vegetation: Coniferous                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: Logging, with reserves                                                                                                                                                                                                                                                                 |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Site #: 177                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Field UTM 10.313210.6038316                                                                                                                                                                                                   |  | Agency: C016                                                                                                                                          |                     | Crew: MJ/MG                   |              | Date: 2001-09-19                                                                                     |  |
| Site Length (m): 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | GIS UTM..                                                                                                                                                                                                                     |  | Agency Name: FINS Consulting Ltd.                                                                                                                     |                     |                               |              |                                                                                                      |  |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Intermittent: <input checked="" type="checkbox"/>                                                                                                                                                                             |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | Tribes.: <input type="checkbox"/>                                                                                                                                                                                             |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Stage: Low <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Temp (C):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | pH:                                                                                                                                                                                                                           |  | Conductivity:                                                                                                                                         |                     |                               |              |                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | D95 (cm): 15.00                                                                                                                                                                                                               |  | Bars: Non <input checked="" type="checkbox"/>                                                                                                         |                     | Side <input type="checkbox"/> |              | Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |  |
| Subdominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | D (cm): 1.00                                                                                                                                                                                                                  |  |                                                                                                                                                       |                     |                               |              | Braid <input type="checkbox"/>                                                                       |  |
| Channel Pattern: Irregular, Wandering                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | Islands: None                                                                                                                                                                                                                 |  | DISTURBANCE                                                                                                                                           |                     | O1 B1 B2 B3 D1 D2 D3          |              |                                                                                                      |  |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                                                                                                                               |  | INDICATORS                                                                                                                                            |                     |                               |              |                                                                                                      |  |
| Confinement: Occasionally Confin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                                                                                                                                                               |  | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                         |                     |                               |              |                                                                                                      |  |
| Morphology: RP Riffle Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Total Cover: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| LWD: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| LWD Dist: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Right Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |  |                                                                                                                                                       |                     |                               |              | Crown Closure                                                                                        |  |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |  |                                                                                                                                                       |                     |                               |              | 21-40%                                                                                               |  |
| Right Bank: Rip.Veg: Coniferous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Stage: Mature forest                                                                                                                                                                                                          |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | Stage: Mature forest                                                                                                                                                                                                          |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                               |  | Instream Veg: None <input checked="" type="checkbox"/> Algae <input type="checkbox"/> Moss <input type="checkbox"/> Vascular <input type="checkbox"/> |                     |                               |              |                                                                                                      |  |
| <p>Roll#: 2, Frame# 21, CD# 1, Image# 46, Direction: X, SCALE/COMMENT: Mac - POD</p> <p>Roll#: 2, Frame# 22, CD# 1, Image# 47, Direction: U, SCALE/COMMENT: boot</p> <p>SITE CARD : site=UTM</p> <p>SITE CARD : Channel dissipates approximately 30m u/s from lower boundary - no channel at this point. No access from parent stream.</p> <p>MORPHOLOGY : Flows through 20m wide forested valley with some sub-flow.</p> <p>OTHER HABITAT : No fish habitat - seasonal and inaccessible from parent stream.</p> |  |                                                                                                                                                                                                                               |  |                                                                                                                                                       |                     |                               |              |                                                                                                      |  |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # 1.0 ILP Map # 093K.041 ILP # 41027

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------|-------------------|--------------------------------------------------------|---------------------|--------------------------------------------|--------------|-------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                      |                   |                                                        | Local Name:         |                                            |              |                                           |                     |
| Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                      |                   |                                                        | ILP Map #: 093K.041 |                                            | ILP #: 41027 |                                           |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |
| Reach #: 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | UTM (Zone/East/North): 10.315518.6040104             |                   |                                                        |                     | Sample Type: Biased                        |              |                                           |                     |
| Length (km): .93                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Coupling: Decoupled                                  |                   | Magnitude: 5                                           |                     | BGC Zone: ESSF                             |              |                                           |                     |
| Gradient (%): 1.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Confinement: Unconfined                              |                   | Order: 3                                               |                     | Open water: Not Specified                  |              |                                           |                     |
| US Elev (m): 1037                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Islands: None Visible                                |                   | Riparian Vegetation: Coniferous                        |                     |                                            |              |                                           |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: Other                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |
| Site #: 178                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Field UTM 10.315591.6039930                          |                   | Agency: C016                                           |                     | Crew: MJ/MG                                |              | Date: 2001-09-21                          |                     |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | GIS UTM..                                            |                   | Agency Name: FINS Consulting Ltd.                      |                     |                                            |              |                                           |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Intermittent: <input type="checkbox"/>               |                   | Avg                                                    |                     | Min                                        |              | Max                                       |                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Tribes.: <input type="checkbox"/>                    |                   | Channel Width (m): 1.22                                |                     | 0.9                                        |              | 1.600                                     |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                      |                   | Wetted Width (m): 0.85                                 |                     | 0.600                                      |              | 1.100                                     |                     |
| Med <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                      |                   | Bankfull Depth (m): 0.43                               |                     | 0.4                                        |              | 0.5                                       |                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Temp (C): 6                                          |                   | pH: 7.3                                                |                     | Conductivity: 40                           |              |                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                      |                   |                                                        |                     | Turbidity: Turbid <input type="checkbox"/> |              | Low <input type="checkbox"/>              |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                      |                   |                                                        |                     | Moderate <input type="checkbox"/>          |              | Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | D95 (cm): 0.01                                       |                   | Bars: Non <input checked="" type="checkbox"/>          |                     | Side <input type="checkbox"/>              |              | Diagonal <input type="checkbox"/>         |                     |
| Subdominant: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | D (cm): 0.01                                         |                   |                                                        |                     | Mid-channel <input type="checkbox"/>       |              | Span <input type="checkbox"/>             |                     |
| Channel Pattern: Irregular, Wandering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Islands: None                                        |                   | DISTURBANCE                                            |                     | O1                                         |              | B1                                        |                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                      |                   | INDICATORS                                             |                     | B2                                         |              | B3                                        |                     |
| Confinement: Unconfined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                      |                   | C1                                                     |                     | C2                                         |              | C3                                        |                     |
| Morphology: LC Large Channel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                      |                   | C4                                                     |                     | C5                                         |              | S1                                        |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                      |                   | S2                                                     |                     | S3                                         |              | S4                                        |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                      |                   | S5                                                     |                     |                                            |              |                                           |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Type: SWD                                            |                   | LWD                                                    |                     | B                                          |              | U                                         |                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Amount: T                                            |                   | N                                                      |                     | D                                          |              | S                                         |                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | Location: P/S/O: <input checked="" type="checkbox"/> |                   | <input checked="" type="checkbox"/>                    |                     | <input checked="" type="checkbox"/>        |              | <input checked="" type="checkbox"/>       |                     |
| Right Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Texture: Fines <input checked="" type="checkbox"/>   |                   | Gravel <input type="checkbox"/>                        |                     | Cobble <input type="checkbox"/>            |              | Boulder <input type="checkbox"/>          |                     |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Texture: Fines <input checked="" type="checkbox"/>   |                   | Gravel <input type="checkbox"/>                        |                     | Cobble <input type="checkbox"/>            |              | Boulder <input type="checkbox"/>          |                     |
| Right Bank: Rip.Veg: Wetland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | Stage: Not Applicable                                |                   | Instream Veg: None <input checked="" type="checkbox"/> |                     | Algae <input type="checkbox"/>             |              | Moss <input type="checkbox"/>             |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Stage: Not Applicable                                |                   |                                                        |                     | Vascular <input type="checkbox"/>          |              |                                           |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Capture Method | Number of Events                                     | Length fished (m) | Total Time                                             | Voltage             | Species                                    | Total Fish   | Minimum Length (mm)                       | Maximum Length (mm) |
| 178                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | EF             | 1                                                    | 150               | 204 sec                                                | 600                 | NFC                                        | 0            |                                           |                     |
| Roll#: 2, Frame# 7, CD# 1, Image# 32, Direction: U, SCALE/COMMENT: cam bag<br>Roll#: 2, Frame# 8, CD# 1, Image# 33, Direction: D, SCALE/COMMENT: water tester.<br>SITE CARD: site=UTM<br>MORPHOLOGY: Flows through swampy area with very dense willow shrub in places.<br>MORPHOLOGY: Channel incised with deep cutbanks.<br>REARING HABITAT: Usable for fry or juveniles, but unlikely.<br>OTHER HABITAT: Poor rainbow trout habitat - no spawning or overwintering habitat. Shallow, with slow flow and no suitable spawning substrate.<br>COVER: Potential migratory route to upper reaches unless impounded by BD's in lower section of reach. |                |                                                      |                   |                                                        |                     |                                            |              |                                           |                     |

# FDIS Reach/Site Summary

## BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # ILP Map # ILP #

1.0 093K.041 41028

### STREAM REFERENCING

Gazetted Name:

Local Name:

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

ILP Map #: 093K.041

ILP #: 41028

### REACH

Reach #: 1.0 UTM(Zone/East/North): 10.315391.6040578 Sample Type: Biased  
Length (km): .50 Coupling: Decoupled Magnitude: 2 BGC Zone: ESSF  
Gradient (%): 7.2 Confinement: Occasionally Con Order: 2 Open water: Absent  
US Elev (m): 1073 Islands: NONE Riparian Vegetation: Coniferous  
Bars: None ☒ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ Landuse: None/natural

### SITE

Site #: 179 Field UTM 10.315511.6040133 Agency: C016 Crew: MJ/MG Date: 2001-09-21  
Site Length (m): 200 GIS UTM.. Agency Name: FINS Consulting Ltd.

### CHANNEL

No Vis.Ch.: ☒ Intermittent: ☐  
Dewatered: ☐ Tribs.: ☐  
Stage: Low ☐  
Med ☐  
High ☐ Temp (C): pH: Conductivity: Turbidity: Turbid ☐ Low ☐  
Moderate ☐ Clear ☐  

|                     | Avg  | Min | Max | # |
|---------------------|------|-----|-----|---|
| Channel Width (m):  | 0.00 | 0   | 0   | 0 |
| Wetted Width (m):   | 0.00 | 0   | 0   | 0 |
| Bankfull Depth (m): | 0.00 | 0   | 0   | 0 |

|                 | Avg  | Min | Max | # |
|-----------------|------|-----|-----|---|
| Gradient %:     | 0.00 | 0   | 0   | 0 |
| Pool Depth (m): | 0.00 | 0   | 0   | 0 |

### MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐  
Subdominant: D (cm): Braid ☐  
Channel Pattern: Islands: DISTURBANCE INDICATORS O1 B1 B2 B3 D1 D2 D3  
Coupling: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5  
Confinement: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
Morphology: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

### COVER

Total Cover: Type: SWD LWD B U DP OV IV  
Amount: ☐ ☐ ☐ ☐ ☐ ☐ ☐  
LWD: Location: P/S/O: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ FSZ: ☐  
LWD Dist: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐  
Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure  
Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐  
Right Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐  
Left Bank: Rip.Veg: Stage: ☐

### FEATURES

| NID Map | NID   | Type | Hgt | Method | Lg | Method | Photo       | AirPhoto | UTM (Z/E/N) |
|---------|-------|------|-----|--------|----|--------|-------------|----------|-------------|
| 93K.041 | 31791 | BMA  |     | GE     |    | GE     | R: F: L: #: |          | ..          |

Comments: No drainage at mapped location

SITE CARD : site=UTM

SITE CARD : No drainage present at mapped location or within 100m radius.

OTHER HABITAT : No fish habitat - forest floor with no kind of drainage.

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # 1.0 ILP Map # 093K.041 ILP # 41034

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                         |  |                                             |  |                                    |                     |                                            |              |                                   |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------|--|------------------------------------|---------------------|--------------------------------------------|--------------|-----------------------------------|--|
| Gazetted Name:                                                                                                                                                                                                                                                                                                             |  |                                             |  |                                    | Local Name:         |                                            |              |                                   |  |
| Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000                                                                                                                                                                                                                                                            |  |                                             |  |                                    | ILP Map #: 093K.041 |                                            | ILP #: 41034 |                                   |  |
| REACH                                                                                                                                                                                                                                                                                                                      |  |                                             |  |                                    |                     |                                            |              |                                   |  |
| Reach #: 1.0                                                                                                                                                                                                                                                                                                               |  | UTM (Zone/East/North): 10.314393.6040483    |  |                                    |                     | Sample Type: Biased                        |              |                                   |  |
| Length (km): .17                                                                                                                                                                                                                                                                                                           |  | Coupling: Decoupled                         |  | Magnitude: 2                       |                     | BGC Zone: ESSF                             |              |                                   |  |
| Gradient (%): 11.2                                                                                                                                                                                                                                                                                                         |  | Confinement: Unconfined                     |  | Order: 2                           |                     | Open water: Absent                         |              |                                   |  |
| US Elev (m): 1059                                                                                                                                                                                                                                                                                                          |  | Islands: NONE                               |  | Riparian Vegetation: Coniferous    |                     |                                            |              |                                   |  |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                     |  |                                             |  |                                    |                     |                                            |              |                                   |  |
| SITE                                                                                                                                                                                                                                                                                                                       |  |                                             |  |                                    |                     |                                            |              |                                   |  |
| Site #: 180                                                                                                                                                                                                                                                                                                                |  | Field UTM 10.314358.6040372                 |  | Agency: C016                       |                     | Crew: MJ/MG                                |              | Date: 2001-09-21                  |  |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                       |  | GIS UTM..                                   |  | Agency Name: FINS Consulting Ltd.  |                     |                                            |              |                                   |  |
| CHANNEL                                                                                                                                                                                                                                                                                                                    |  |                                             |  |                                    |                     |                                            |              |                                   |  |
| No Vis.Ch.: <input checked="" type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                     |  |                                             |  | Avg                                |                     | Min                                        |              | Max                               |  |
| Dewatered: <input type="checkbox"/> Tribes.: <input type="checkbox"/>                                                                                                                                                                                                                                                      |  |                                             |  | 0.00                               |                     | 0                                          |              | 0                                 |  |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                        |  | Channel Width (m):                          |  | 0.00                               |                     | 0                                          |              | 0                                 |  |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                               |  | Wetted Width (m):                           |  | 0.00                               |                     | 0                                          |              | 0                                 |  |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                              |  | Bankfull Depth (m):                         |  | 0.00                               |                     | 0                                          |              | 0                                 |  |
| Temp (C):                                                                                                                                                                                                                                                                                                                  |  | pH:                                         |  | Conductivity:                      |                     | Turbidity: Turbid <input type="checkbox"/> |              | Low <input type="checkbox"/>      |  |
|                                                                                                                                                                                                                                                                                                                            |  |                                             |  |                                    |                     | Moderate <input type="checkbox"/>          |              | Clear <input type="checkbox"/>    |  |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                 |  |                                             |  |                                    |                     |                                            |              |                                   |  |
| Bed Material: Dominant:                                                                                                                                                                                                                                                                                                    |  | D95 (cm):                                   |  | Bars: Non <input type="checkbox"/> |                     | Side <input type="checkbox"/>              |              | Diagonal <input type="checkbox"/> |  |
| Subdominant:                                                                                                                                                                                                                                                                                                               |  | D (cm):                                     |  |                                    |                     | Mid-channel <input type="checkbox"/>       |              | Span <input type="checkbox"/>     |  |
| Channel Pattern:                                                                                                                                                                                                                                                                                                           |  | Islands:                                    |  | DISTURBANCE                        |                     | O1                                         |              | B1                                |  |
| Coupling:                                                                                                                                                                                                                                                                                                                  |  |                                             |  | INDICATORS                         |                     | B2                                         |              | B3                                |  |
| Confinement:                                                                                                                                                                                                                                                                                                               |  |                                             |  | C1                                 |                     | C2                                         |              | C3                                |  |
| Morphology:                                                                                                                                                                                                                                                                                                                |  |                                             |  | C4                                 |                     | C5                                         |              | S1                                |  |
|                                                                                                                                                                                                                                                                                                                            |  |                                             |  | S2                                 |                     | S3                                         |              | S4                                |  |
|                                                                                                                                                                                                                                                                                                                            |  |                                             |  | S5                                 |                     |                                            |              |                                   |  |
| COVER                                                                                                                                                                                                                                                                                                                      |  |                                             |  |                                    |                     |                                            |              |                                   |  |
| Total Cover:                                                                                                                                                                                                                                                                                                               |  | Type:                                       |  | SWD                                |                     | LWD                                        |              | B                                 |  |
| LWD:                                                                                                                                                                                                                                                                                                                       |  | Amount:                                     |  |                                    |                     |                                            |              |                                   |  |
| LWD Dist:                                                                                                                                                                                                                                                                                                                  |  | Location: P/S/O:                            |  |                                    |                     |                                            |              |                                   |  |
| Right Bank: Shape:                                                                                                                                                                                                                                                                                                         |  | Texture: Fines <input type="checkbox"/>     |  | Gravel <input type="checkbox"/>    |                     | Cobble <input type="checkbox"/>            |              | Boulder <input type="checkbox"/>  |  |
| Left Bank: Shape:                                                                                                                                                                                                                                                                                                          |  | Texture: Fines <input type="checkbox"/>     |  | Gravel <input type="checkbox"/>    |                     | Cobble <input type="checkbox"/>            |              | Boulder <input type="checkbox"/>  |  |
| Right Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                       |  | Stage:                                      |  |                                    |                     |                                            |              |                                   |  |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                        |  | Stage:                                      |  |                                    |                     |                                            |              |                                   |  |
|                                                                                                                                                                                                                                                                                                                            |  | Instream Veg: None <input type="checkbox"/> |  | Algae <input type="checkbox"/>     |                     | Moss <input type="checkbox"/>              |              | Vascular <input type="checkbox"/> |  |
| <p>Roll#: 2, Frame# 14, CD# 1, Image# 39, Direction: D, SCALE/COMMENT: shocker</p> <p>Roll#: 2, Frame# 15, CD# 1, Image# 40, Direction: U, SCALE/COMMENT: boot</p> <p>SITE CARD: site=UTM</p> <p>OTHER HABITAT: No fish habitat - meltwater channel with no fluvium or continuity. Does not reach Pinkut Creek anyway.</p> |  |                                             |  |                                    |                     |                                            |              |                                   |  |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-90000-00000-0000-000-000-000-000-000

5.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------|------------|-----------------------------------------------------------------------------|---------------------|-------|-----|-----|---|---|----|----|----|---------|---|---|---|---|---|---|---|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  | Local Name: |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Watershed Code: 480-927700-90000-00000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  | ILP Map #:  |                                | ILP #:     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Reach #: 5.0                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | UTM (Zone/East/North): 10.311889.6040737                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |             | Sample Type: Biased            |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Length (km): .12                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Coupling: Coupled                                                                                                                                                                                                                                                                                                   |                   | Magnitude: 16                                                                                                                                                                    |             | BGC Zone: ESSF                 |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Gradient (%): 2.5                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Confinement: Entrenched                                                                                                                                                                                                                                                                                             |                   | Order: 3                                                                                                                                                                         |             | Open water: Absent             |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| US Elev (m): 1120                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Islands: NONE                                                                                                                                                                                                                                                                                                       |                   | Riparian Vegetation: Coniferous                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Site #: 181                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Field UTM 10.311850.6040786                                                                                                                                                                                                                                                                                         |                   | Agency: C016                                                                                                                                                                     |             | Crew: MJ/MG                    |            | Date: 2001-09-21                                                            |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                                                                                            |                | GIS UTM..                                                                                                                                                                                                                                                                                                           |                   | Agency Name: FINS Consulting Ltd.                                                                                                                                                |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                                                                                                                     |                   | Avg                                                                                                                                                                              |             | Min                            |            | Max                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Dewatered: <input type="checkbox"/> Tribes.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                                                     |                   | Channel Width (m): 3.03                                                                                                                                                          |             | 2.200                          |            | 4.1                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                                                     |                   | Wetted Width (m): 2.48                                                                                                                                                           |             | 2                              |            | 3                                                                           |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Med <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                                                     |                   | Bankfull Depth (m): 0.33                                                                                                                                                         |             | 0.3                            |            | 0.4                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Temp (C): 7                                                                                                                                                                                                                                                                                                         |                   | pH: 7.5                                                                                                                                                                          |             | Conductivity: 50               |            | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Bed Material: Dominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                  |                | D95 (cm): 400.00                                                                                                                                                                                                                                                                                                    |                   | Bars: Non <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |             | Braid <input type="checkbox"/> |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Subdominant: Gravels                                                                                                                                                                                                                                                                                                                                                                                                                            |                | D (cm): 10.00                                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Islands: None                                                                                                                                                                                                                                                                                                       |                   | DISTURBANCE INDICATORS                                                                                                                                                           |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Coupling: Coupled                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                                                                                                     |                   | O1 B1 B2 B3 D1 D2 D3                                                                                                                                                             |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Confinement: Confined                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                                                     |                   | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                                                    |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Morphology: RP Riffle Pool                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                           |                | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Type:</th> <th>SWD</th> <th>LWD</th> <th>B</th> <th>U</th> <th>DP</th> <th>OV</th> <th>IV</th> </tr> <tr> <th>Amount:</th> <td>T</td> <td>T</td> <td>S</td> <td>T</td> <td>D</td> <td>T</td> <td>S</td> </tr> </table>                   |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     | Type: | SWD | LWD | B | U | DP | OV | IV | Amount: | T | T | S | T | D | T | S |
| Type:                                                                                                                                                                                                                                                                                                                                                                                                                                           | SWD            | LWD                                                                                                                                                                                                                                                                                                                 | B                 | U                                                                                                                                                                                | DP          | OV                             | IV         |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Amount:                                                                                                                                                                                                                                                                                                                                                                                                                                         | T              | T                                                                                                                                                                                                                                                                                                                   | S                 | T                                                                                                                                                                                | D           | T                              | S          |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Location: P/S/O: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> FSZ: <input type="checkbox"/> |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Right Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input checked="" type="checkbox"/> Rock <input checked="" type="checkbox"/> Manmade <input type="checkbox"/>                                                      |                   | Crown Closure                                                                                                                                                                    |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Left Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input checked="" type="checkbox"/> Rock <input checked="" type="checkbox"/> Manmade <input type="checkbox"/>                                                      |                   | 21-40%                                                                                                                                                                           |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Right Bank: Rip.Veg: Shrubs                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Stage: Not Applicable                                                                                                                                                                                                                                                                                               |                   | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/>                            |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Stage: Not Applicable                                                                                                                                                                                                                                                                                               |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                     | Capture Method | Number of Events                                                                                                                                                                                                                                                                                                    | Length fished (m) | Total Time                                                                                                                                                                       | Voltage     | Species                        | Total Fish | Minimum Length (mm)                                                         | Maximum Length (mm) |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| 181                                                                                                                                                                                                                                                                                                                                                                                                                                             | EF             | 1                                                                                                                                                                                                                                                                                                                   | 150               | 135 sec                                                                                                                                                                          | 600         | RB                             | 2          | 63                                                                          | 105                 |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |
| <p>Roll# : 2 , Frame# 9 , CD# 1 , Image# 34 , Direction: U , SCALE/COMMENT: cam bag</p> <p>Roll# : 2 , Frame# 10 , CD# 1 , Image# 35 , Direction: D , SCALE/COMMENT: cam bag</p> <p>SITE CARD : site=UTM</p> <p>MORPHOLOGY : Flows through canyon.</p> <p>SPAWNING HABITAT : Poor - angular substrate.</p> <p>REARING HABITAT : Excellent.</p> <p>OVERWINTERING HABITAT : Good.</p> <p>OTHER HABITAT : Beautiful creek with abundant cover.</p> |                |                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-90000-00000-0000-000-000-000-000-000

6.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------|------------|-----------------------------------------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  | Local Name: |                                |            |                                                                             |                     |
| Watershed Code: 480-927700-90000-00000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  | ILP Map #:  |                                | ILP #:     |                                                                             |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| Reach #: 6.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | UTM (Zone/East/North): 10.310998.6040789                                                                                                                                                                                                                                              |                   |                                                                                                                                                                                  |             | Sample Type: Biased            |            |                                                                             |                     |
| Length (km): .95                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                | Coupling: Coupled                                                                                                                                                                                                                                                                     |                   | Magnitude: 16                                                                                                                                                                    |             | BGC Zone: ESSF                 |            |                                                                             |                     |
| Gradient (%): 1.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Confinement: Frequently Confin                                                                                                                                                                                                                                                        |                   | Order: 3                                                                                                                                                                         |             | Open water: Absent             |            |                                                                             |                     |
| US Elev (m): 1136                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Islands: NONE                                                                                                                                                                                                                                                                         |                   | Riparian Vegetation: Coniferous                                                                                                                                                  |             |                                |            |                                                                             |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                        |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| Site #: 182                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Field UTM 10.311854.6040677                                                                                                                                                                                                                                                           |                   | Agency: C016                                                                                                                                                                     |             | Crew: MJ/MG                    |            | Date: 2001-09-21                                                            |                     |
| Site Length (m): 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | GIS UTM..                                                                                                                                                                                                                                                                             |                   | Agency Name: FINS Consulting Ltd.                                                                                                                                                |             |                                |            |                                                                             |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                                       |                   | Avg                                                                                                                                                                              |             | Min                            |            | Max                                                                         |                     |
| Dewatered: <input type="checkbox"/> Tribs.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                       |                   | Channel Width (m): 2.13                                                                                                                                                          |             | 1.700                          |            | 2.5                                                                         |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                       |                   | Wetted Width (m): 1.97                                                                                                                                                           |             | 1.600                          |            | 2.3                                                                         |                     |
| Med <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                                       |                   | Bankfull Depth (m): 0.50                                                                                                                                                         |             | 0.4                            |            | 0.6                                                                         |                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Temp (C): 7                                                                                                                                                                                                                                                                           |                   | pH: 7.5                                                                                                                                                                          |             | Conductivity: 50               |            | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| Bed Material: Dominant: Gravels                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | D95 (cm): 30.00                                                                                                                                                                                                                                                                       |                   | Bars: Non <input type="checkbox"/> Side <input checked="" type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |             | Braid <input type="checkbox"/> |            |                                                                             |                     |
| Subdominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | D (cm): 4.00                                                                                                                                                                                                                                                                          |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Islands: Occasional                                                                                                                                                                                                                                                                   |                   | DISTURBANCE INDICATORS                                                                                                                                                           |             |                                |            |                                                                             |                     |
| Coupling: Coupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                       |                   | O1 B1 B2 B3 D1 D2 D3                                                                                                                                                             |             |                                |            |                                                                             |                     |
| Confinement: Frequently Confined                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                                                                       |                   | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                                                    |             |                                |            |                                                                             |                     |
| Morphology: RP Riffle Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Type: SWD LWD B U DP OV IV                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Amount: T T N T S T D                                                                                                                                                                                                                                                                 |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Location: P/S/O: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                   | FSZ: <input type="checkbox"/>                                                                                                                                                    |             |                                |            |                                                                             |                     |
| Right Bank: Shape: Sloping (                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                              |                   | Crown Closure                                                                                                                                                                    |             |                                |            |                                                                             |                     |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                         |                   | 21-40%                                                                                                                                                                           |             |                                |            |                                                                             |                     |
| Right Bank: Rip.Veg: Shrubs                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Stage: Not Applicable                                                                                                                                                                                                                                                                 |                   | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/>                            |             |                                |            |                                                                             |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Stage: Not Applicable                                                                                                                                                                                                                                                                 |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Capture Method | Number of Events                                                                                                                                                                                                                                                                      | Length fished (m) | Total Time                                                                                                                                                                       | Voltage     | Species                        | Total Fish | Minimum Length (mm)                                                         | Maximum Length (mm) |
| 182                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | EF             | 1                                                                                                                                                                                                                                                                                     | 100               | 169 sec                                                                                                                                                                          | 600         | RB                             | 3          | 67                                                                          | 109                 |
| <p>Roll# : 2 , Frame# 11 , CD# 1 , Image# 36 , Direction: U , SCALE/COMMENT: cam bag</p> <p>Roll# : 2 , Frame# 12 , CD# 1 , Image# 37 , Direction: D , SCALE/COMMENT: cam bag</p> <p>SITE CARD : site=UTM</p> <p>MORPHOLOGY : Flows through narrow ~10m wide valley.</p> <p>SPAWNING HABITAT : Good - fairly abundant gravels, although in patches.</p> <p>REARING HABITAT : Good</p> <p>OVERWINTERING HABITAT : Good</p> <p>OTHER HABITAT : Excellent overall habitat for rainbow trout.</p> |                |                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                |            |                                                                             |                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-90000-00000-00000-000-000-000-000-000

11.0

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  | Local Name: |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Watershed Code: 480-927700-90000-00000-00000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  | ILP Map #:  |                                                                                                                                                                                                                                                           | ILP #:     |                                           |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Reach #: 11.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | UTM (Zone/East/North): 10.308341.6042016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |                                                                                                                                                                                  |             | Sample Type: Biased                                                                                                                                                                                                                                       |            |                                           |                     |
| Length (km): .89                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                   | Magnitude: 6                                                                                                                                                                     |             | BGC Zone: ESSF                                                                                                                                                                                                                                            |            |                                           |                     |
| Gradient (%): 3.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Confinement: Unconfined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                   | Order: 2                                                                                                                                                                         |             | Open water: Absent                                                                                                                                                                                                                                        |            |                                           |                     |
| US Elev (m): 1209                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Islands: None Visible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   | Riparian Vegetation: Coniferous                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Site #: 183                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Field UTM 10.308707.6041953                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   | Agency: C016                                                                                                                                                                     |             | Crew: MJ/MG                                                                                                                                                                                                                                               |            | Date: 2001-09-22                          |                     |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | GIS UTM..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   | Agency Name: FINS Consulting Ltd.                                                                                                                                                |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   | Avg                                                                                                                                                                              |             | Min                                                                                                                                                                                                                                                       |            | Max                                       |                     |
| Dewatered: <input type="checkbox"/> Tribes.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   | Channel Width (m): 1.90                                                                                                                                                          |             | 1                                                                                                                                                                                                                                                         |            | 2.700                                     |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   | Wetted Width (m): 1.73                                                                                                                                                           |             | 1                                                                                                                                                                                                                                                         |            | 2.3                                       |                     |
| Med <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   | Bankfull Depth (m): 0.50                                                                                                                                                         |             | 0.5                                                                                                                                                                                                                                                       |            | 0.5                                       |                     |
| High <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Temp (C): 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                   | pH: 7.9                                                                                                                                                                          |             | Conductivity: 20                                                                                                                                                                                                                                          |            |                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             | Avg                                                                                                                                                                                                                                                       |            | Min                                       |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             | Gradient %: 3.50                                                                                                                                                                                                                                          |            | 3                                         |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             | Pool Depth (m): 0.56                                                                                                                                                                                                                                      |            | 0.39                                      |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            | 0.790                                     |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            | 6                                         |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             | Turbidity: Turbid <input type="checkbox"/>                                                                                                                                                                                                                |            | Low <input type="checkbox"/>              |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             | Moderate <input type="checkbox"/>                                                                                                                                                                                                                         |            | Clear <input checked="" type="checkbox"/> |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Bed Material: Dominant: Gravels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | D95 (cm): 10.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   | Bars: Non <input type="checkbox"/> Side <input checked="" type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Subdominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | D (cm): 5.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Channel Pattern: Irregular, Wandering                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Islands: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                   | DISTURBANCE                                                                                                                                                                      |             | O1 B1 B2 B3 D1 D2 D3                                                                                                                                                                                                                                      |            |                                           |                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   | INDICATORS                                                                                                                                                                       |             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |            |                                           |                     |
| Confinement: Occasionally Confine                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                                                    |             | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |            |                                           |                     |
| Morphology: RP Riffle Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Type: SWD LWD B U DP OV IV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | Amount: T T N S D T T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Location: P/S/O: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                   | FSZ: <input type="checkbox"/>                                                                                                                                                    |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Right Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                    |                   | Crown Closure                                                                                                                                                                    |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                    |                   | 1-20%                                                                                                                                                                            |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Right Bank: Rip.Veg: Shrubs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Stage: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Stage: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/>                            |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Capture Method | Number of Events                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Length fished (m) | Total Time                                                                                                                                                                       | Voltage     | Species                                                                                                                                                                                                                                                   | Total Fish | Minimum Length (mm)                       | Maximum Length (mm) |
| 183                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EF             | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 150               | 269 sec                                                                                                                                                                          | 600         | RB                                                                                                                                                                                                                                                        | 2          | 112                                       | 127                 |
| <p>Roll#: 4, Frame# 1, CD# 1, Image# 74, Direction: U, SCALE/COMMENT: probe</p> <p>Roll#: 4, Frame# 2, CD# 1, Image# 75, Direction: D, SCALE/COMMENT: cam bag</p> <p>SITE CARD: site=UTM</p> <p>MORPHOLOGY: Flows through plateau with sparse conifers.</p> <p>WATERBODY: Very sparse rainbow trout population.</p> <p>OTHER HABITAT: Excellent rainbow trout habitat. Plenty of deep pools (every 5m on average), almost entirely gravel in stream bed with very few cobbles.</p> <p>COVER: Very abundant.</p> |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                                                                                                                                  |             |                                                                                                                                                                                                                                                           |            |                                           |                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-90000-00000-0000-000-000-000-000-000

19.0

| STREAM REFERENCING                                                                                                                                                                                                                     |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                         |                                        |                                                                                                                                                                                                                                                        |                   |                                               | Local Name: |                                                                                                                                                       |            |                               |                     |
| Watershed Code: 480-927700-90000-00000-0000-000-000-000-000-000                                                                                                                                                                        |                                        |                                                                                                                                                                                                                                                        |                   |                                               | ILP Map #:  |                                                                                                                                                       | ILP #:     |                               |                     |
| REACH                                                                                                                                                                                                                                  |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Reach #: 19.0                                                                                                                                                                                                                          |                                        | UTM (Zone/East/North): 10.306136.6043690                                                                                                                                                                                                               |                   |                                               |             | Sample Type: Biased                                                                                                                                   |            |                               |                     |
| Length (km): .55                                                                                                                                                                                                                       |                                        | Coupling: Partially Coupl                                                                                                                                                                                                                              |                   | Magnitude: 2                                  |             | BGC Zone: ESSF                                                                                                                                        |            |                               |                     |
| Gradient (%): 8.7                                                                                                                                                                                                                      |                                        | Confinement: Frequently Confine                                                                                                                                                                                                                        |                   | Order: 2                                      |             | Open water: Absent                                                                                                                                    |            |                               |                     |
| US Elev (m): 1307                                                                                                                                                                                                                      |                                        | Islands: NONE                                                                                                                                                                                                                                          |                   | Riparian Vegetation: Coniferous               |             |                                                                                                                                                       |            |                               |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| SITE                                                                                                                                                                                                                                   |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Site #: 184                                                                                                                                                                                                                            |                                        | Field UTM 10.306321.6043243                                                                                                                                                                                                                            |                   | Agency: C016                                  |             | Crew: MJ/MG                                                                                                                                           |            | Date: 2001-09-23              |                     |
| Site Length (m): 200                                                                                                                                                                                                                   |                                        | GIS UTM..                                                                                                                                                                                                                                              |                   | Agency Name: FINS Consulting Ltd.             |             |                                                                                                                                                       |            |                               |                     |
| CHANNEL                                                                                                                                                                                                                                |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                   | Intermittent: <input type="checkbox"/> |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                    | Tribs.: <input type="checkbox"/>       |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                    | Med <input type="checkbox"/>           |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| High <input checked="" type="checkbox"/>                                                                                                                                                                                               | Temp (C): 8                            |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
|                                                                                                                                                                                                                                        |                                        | pH: 6.9                                                                                                                                                                                                                                                |                   |                                               |             | Conductivity: 20                                                                                                                                      |            |                               |                     |
|                                                                                                                                                                                                                                        |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>                                                                               |            |                               |                     |
|                                                                                                                                                                                                                                        |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/>                                                                           |            |                               |                     |
| MORPHOLOGY                                                                                                                                                                                                                             |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Bed Material: Dominant: Gravels                                                                                                                                                                                                        |                                        | D95 (cm): 10.00                                                                                                                                                                                                                                        |                   | Bars: Non <input checked="" type="checkbox"/> |             | Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/>                    |            |                               |                     |
| Subdominant: Cobble                                                                                                                                                                                                                    |                                        | D (cm): 4.00                                                                                                                                                                                                                                           |                   |                                               |             | Braid <input type="checkbox"/>                                                                                                                        |            |                               |                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                               |                                        | Islands: None                                                                                                                                                                                                                                          |                   | DISTURBANCE INDICATORS                        |             | O1 B1 B2 B3 D1 D2 D3                                                                                                                                  |            |                               |                     |
| Coupling: Decoupled                                                                                                                                                                                                                    |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Confinement: Occasionally Confine                                                                                                                                                                                                      |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Morphology: SP Step Pool                                                                                                                                                                                                               |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| COVER                                                                                                                                                                                                                                  |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Total Cover: Moderate                                                                                                                                                                                                                  |                                        | Type: SWD LWD B U DP OV IV                                                                                                                                                                                                                             |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| LWD: Few                                                                                                                                                                                                                               |                                        | Amount: N T S T D T N                                                                                                                                                                                                                                  |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                           |                                        | Location: P/S/O: <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> |                   |                                               |             |                                                                                                                                                       |            | FSZ: <input type="checkbox"/> |                     |
| Right Bank: Shape: V - shape                                                                                                                                                                                                           |                                        | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>               |                   |                                               |             |                                                                                                                                                       |            | Crown Closure                 |                     |
| Left Bank: Shape: V - shape                                                                                                                                                                                                            |                                        | Texture: Fines <input checked="" type="checkbox"/> Gravel <input checked="" type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>               |                   |                                               |             |                                                                                                                                                       |            | 21-40%                        |                     |
| Right Bank: Rip.Veg: Coniferous                                                                                                                                                                                                        |                                        | Stage: Mature forest                                                                                                                                                                                                                                   |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                    |                                        | Stage: Mature forest                                                                                                                                                                                                                                   |                   |                                               |             | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/> |            |                               |                     |
| FISH                                                                                                                                                                                                                                   |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Site Number                                                                                                                                                                                                                            | Capture Method                         | Number of Events                                                                                                                                                                                                                                       | Length fished (m) | Total Time                                    | Voltage     | Species                                                                                                                                               | Total Fish | Minimum Length (mm)           | Maximum Length (mm) |
| 184                                                                                                                                                                                                                                    | EF                                     | 1                                                                                                                                                                                                                                                      | 200               | 339 sec                                       | 700         | NFC                                                                                                                                                   | 0          |                               |                     |
| Roll#: 4, Frame# 15, CD# 1, Image# 88, Direction: U, SCALE/COMMENT: cam bag                                                                                                                                                            |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| Roll#: 4, Frame# 16, CD# 1, Image# 89, Direction: D, SCALE/COMMENT: cam bag                                                                                                                                                            |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| SITE CARD : site=UTM                                                                                                                                                                                                                   |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| MORPHOLOGY : Flows mainly on slope with some confined and gullied sections.                                                                                                                                                            |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| SPAWNING HABITAT : Poor - mostly angular gravels with some semi-angular. May be used sporadically for spawning.                                                                                                                        |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| REARING HABITAT : Moderate to good - pools relatively abundant. Good flow.                                                                                                                                                             |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| OVERWINTERING HABITAT : Too shallow, pools small and fast flowing. Likely move to lake, but may utilize some deeper pools.                                                                                                             |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |
| OTHER HABITAT : Overall, low to moderate value habitat. Unlikely fish use - no fish observed rising in lake d/s, unknown if present                                                                                                    |                                        |                                                                                                                                                                                                                                                        |                   |                                               |             |                                                                                                                                                       |            |                               |                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-90000-17200-0000-0000-000-000-000-000-000

1.0

| STREAM REFERENCING                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|-----|-----|-----|---|-------------|------|---|---|---|-----------------|------|---|---|---|
| Gazetted Name:                                                                                                                                                                                                                         |                          |                                                                                                                                                                                                         |                          | Local Name:                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Watershed Code: 480-927700-90000-17200-0000-0000-000-000-000-000-000                                                                                                                                                                   |                          |                                                                                                                                                                                                         |                          | ILP Map #:                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | ILP #:                                                                                                                                    |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| REACH                                                                                                                                                                                                                                  |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Reach #: 1.0                                                                                                                                                                                                                           |                          | UTM(Zone/East/North): 10.311871.6040439                                                                                                                                                                 |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          | Sample Type: Random                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Length (km): .33                                                                                                                                                                                                                       |                          | Coupling: Decoupled                                                                                                                                                                                     |                          | Magnitude: 2                                                                                                                                                                                                                                                                                                                                                          |                          | BGC Zone: ESSF                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Gradient (%): 0.9                                                                                                                                                                                                                      |                          | Confinement: Unconfined                                                                                                                                                                                 |                          | Order: 2                                                                                                                                                                                                                                                                                                                                                              |                          | Open water: Absent                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| US Elev (m): 1120                                                                                                                                                                                                                      |                          | Islands: NONE                                                                                                                                                                                           |                          | Riparian Vegetation: Wetland                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| SITE                                                                                                                                                                                                                                   |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Site #: 185                                                                                                                                                                                                                            |                          | Field UTM 10.311890.6040685                                                                                                                                                                             |                          | Agency: C016                                                                                                                                                                                                                                                                                                                                                          |                          | Crew: MJ/MG                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | Date: 2001-09-21                                                                                                                          |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Site Length (m): 150                                                                                                                                                                                                                   |                          | GIS UTM..                                                                                                                                                                                               |                          | Agency Name: FINS Consulting Ltd.                                                                                                                                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| CHANNEL                                                                                                                                                                                                                                |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| No Vis.Ch.: <input checked="" type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                 |                          | Dewatered: <input type="checkbox"/> Tribs.: <input type="checkbox"/>                                                                                                                                    |                          | <table border="1"><thead><tr><th></th><th>Avg</th><th>Min</th><th>Max</th><th>#</th></tr></thead><tbody><tr><td>Channel Width (m):</td><td>0.00</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Wetted Width (m):</td><td>0.00</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Bankfull Depth (m):</td><td>0.00</td><td>0</td><td>0</td><td>0</td></tr></tbody></table> |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           | Avg                      | Min                      | Max | #                        | Channel Width (m):       | 0.00                     | 0                        | 0                                                                                                                                          | 0                        | Wetted Width (m):        | 0.00                     | 0                        | 0                        | 0                        | Bankfull Depth (m):      | 0.00                     | 0                        | 0 | 0 | <table border="1"><thead><tr><th></th><th>Avg</th><th>Min</th><th>Max</th><th>#</th></tr></thead><tbody><tr><td>Gradient %:</td><td>0.00</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Pool Depth (m):</td><td>0.00</td><td>0</td><td>0</td><td>0</td></tr></tbody></table> |  |  |  |  | Avg | Min | Max | # | Gradient %: | 0.00 | 0 | 0 | 0 | Pool Depth (m): | 0.00 | 0 | 0 | 0 |
|                                                                                                                                                                                                                                        | Avg                      | Min                                                                                                                                                                                                     | Max                      | #                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Channel Width (m):                                                                                                                                                                                                                     | 0.00                     | 0                                                                                                                                                                                                       | 0                        | 0                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Wetted Width (m):                                                                                                                                                                                                                      | 0.00                     | 0                                                                                                                                                                                                       | 0                        | 0                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Bankfull Depth (m):                                                                                                                                                                                                                    | 0.00                     | 0                                                                                                                                                                                                       | 0                        | 0                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
|                                                                                                                                                                                                                                        | Avg                      | Min                                                                                                                                                                                                     | Max                      | #                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Gradient %:                                                                                                                                                                                                                            | 0.00                     | 0                                                                                                                                                                                                       | 0                        | 0                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Pool Depth (m):                                                                                                                                                                                                                        | 0.00                     | 0                                                                                                                                                                                                       | 0                        | 0                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Stage: Low <input type="checkbox"/> Med <input type="checkbox"/> High <input type="checkbox"/>                                                                                                                                         |                          | Temp (C):                                                                                                                                                                                               |                          | pH:                                                                                                                                                                                                                                                                                                                                                                   |                          | Conductivity:                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | Turbidity.: Turbid <input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> Clear <input type="checkbox"/> |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| MORPHOLOGY                                                                                                                                                                                                                             |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Bed Material: Dominant:                                                                                                                                                                                                                |                          | D95 (cm):                                                                                                                                                                                               |                          | Bars: Non <input type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/>                                                                                                                                                                                                 |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Subdominant:                                                                                                                                                                                                                           |                          | D (cm):                                                                                                                                                                                                 |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          | Braid <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Channel Pattern:                                                                                                                                                                                                                       |                          | Islands:                                                                                                                                                                                                |                          | DISTURBANCE INDICATORS                                                                                                                                                                                                                                                                                                                                                |                          | <table border="1"><thead><tr><th>O1</th><th>B1</th><th>B2</th><th>B3</th><th>D1</th><th>D2</th><th>D3</th></tr></thead><tbody><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table>                                |                          |                                                                                                                                           |                          |                          |     | O1                       | B1                       | B2                       | B3                       | D1                                                                                                                                         | D2                       | D3                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| O1                                                                                                                                                                                                                                     | B1                       | B2                                                                                                                                                                                                      | B3                       | D1                                                                                                                                                                                                                                                                                                                                                                    | D2                       | D3                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| <input type="checkbox"/>                                                                                                                                                                                                               | <input type="checkbox"/> | <input type="checkbox"/>                                                                                                                                                                                | <input type="checkbox"/> | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Coupling:                                                                                                                                                                                                                              |                          |                                                                                                                                                                                                         |                          | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                                                                                                                                                                                                                                         |                          | <table border="1"><tbody><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></tbody></table> |                          |                                                                                                                                           |                          |                          |     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>                                                                                                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| <input type="checkbox"/>                                                                                                                                                                                                               | <input type="checkbox"/> | <input type="checkbox"/>                                                                                                                                                                                | <input type="checkbox"/> | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> | <input type="checkbox"/>                                                                                                                  | <input type="checkbox"/> | <input type="checkbox"/> |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Confinement:                                                                                                                                                                                                                           |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Morphology:                                                                                                                                                                                                                            |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| COVER                                                                                                                                                                                                                                  |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Total Cover:                                                                                                                                                                                                                           |                          | Type:                                                                                                                                                                                                   |                          | SWD                                                                                                                                                                                                                                                                                                                                                                   |                          | LWD                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | B                                                                                                                                         |                          | U                        |     | DP                       |                          | OV                       |                          | IV                                                                                                                                         |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| LWD:                                                                                                                                                                                                                                   |                          | Amount:                                                                                                                                                                                                 |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| LWD Dist:                                                                                                                                                                                                                              |                          | Location: P/S/O:                                                                                                                                                                                        |                          | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                              |                          | <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                      |                          | <input type="checkbox"/>                                                                                                                  |                          | <input type="checkbox"/> |     | <input type="checkbox"/> |                          | <input type="checkbox"/> |                          | <input type="checkbox"/>                                                                                                                   |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Right Bank: Shape:                                                                                                                                                                                                                     |                          | Texture: Fines <input type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          | Crown Closure                                                                                                                              |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Left Bank: Shape:                                                                                                                                                                                                                      |                          | Texture: Fines <input type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/> |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Right Bank: Rip.Veg:                                                                                                                                                                                                                   |                          | Stage:                                                                                                                                                                                                  |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                    |                          | Stage:                                                                                                                                                                                                  |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input type="checkbox"/> Vascular <input type="checkbox"/> |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| Roll#: 2, Frame# 13, CD# 1, Image# 38, Direction: X, SCALE/COMMENT: No scale.                                                                                                                                                          |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| SITE CARD : site=UTM                                                                                                                                                                                                                   |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| MORPHOLOGY : Drains wetland - no channel in wetland. Channelized near mouth for 20m.                                                                                                                                                   |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |
| OTHER HABITAT : No fish habitat.                                                                                                                                                                                                       |                          |                                                                                                                                                                                                         |                          |                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                                                                                           |                          |                          |     |                          |                          |                          |                          |                                                                                                                                            |                          |                          |                          |                          |                          |                          |                          |                          |                          |   |   |                                                                                                                                                                                                                                                                              |  |  |  |  |     |     |     |   |             |      |   |   |   |                 |      |   |   |   |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

Reach # ILP Map # ILP #

Watershed Code: 480-927700-90000-31000-0000-0000-000-000-000-000

.1

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------|------------|---------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  | Local Name:         |                                                                             |            |                     |                     |
| Watershed Code: 480-927700-90000-31000-0000-0000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  | ILP Map #:          |                                                                             | ILP #:     |                     |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| Reach #: .1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | UTM(Zone/East/North): ..                                                                                                                                                                                                                                                   |                   |                                                                                                                                                                                  | Sample Type: Biased |                                                                             |            |                     |                     |
| Length (km): .23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                | Coupling: Decoupled                                                                                                                                                                                                                                                        |                   | Magnitude: 4                                                                                                                                                                     |                     | BGC Zone: SBS                                                               |            |                     |                     |
| Gradient (%): 0.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Confinement: Unconfined                                                                                                                                                                                                                                                    |                   | Order: 2                                                                                                                                                                         |                     | Open water: Absent                                                          |            |                     |                     |
| US Elev (m): 1138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Islands: None Visible                                                                                                                                                                                                                                                      |                   | Riparian Vegetation: Wetland                                                                                                                                                     |                     |                                                                             |            |                     |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                                                               |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| Site #: 186                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Field UTM 10.310594.6040605                                                                                                                                                                                                                                                |                   | Agency: C016                                                                                                                                                                     |                     | Crew: MJ/MG                                                                 |            | Date: 2001-09-22    |                     |
| Site Length (m): 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | GIS UTM..                                                                                                                                                                                                                                                                  |                   | Agency Name: FINS Consulting Ltd.                                                                                                                                                |                     |                                                                             |            |                     |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| No Vis.Ch.: <input type="checkbox"/> Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                            |                   | Avg                                                                                                                                                                              |                     | Min                                                                         |            | Max                 |                     |
| Dewatered: <input type="checkbox"/> Tribs.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                            |                   | Channel Width (m): 1.20                                                                                                                                                          |                     | 0.800                                                                       |            | 1.600               |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                            |                   | Wetted Width (m): 1.20                                                                                                                                                           |                     | 0.800                                                                       |            | 1.600               |                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                            |                   | Bankfull Depth (m): 0.83                                                                                                                                                         |                     | 0.8                                                                         |            | 0.9                 |                     |
| High <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Temp (C): 7                                                                                                                                                                                                                                                                |                   | pH: 6.6                                                                                                                                                                          |                     | Conductivity: 40                                                            |            |                     |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |            |                     |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |            |                     |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | D95 (cm): 0.50                                                                                                                                                                                                                                                             |                   | Bars: Non <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |                     |                                                                             |            |                     |                     |
| Subdominant: Gravels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | D (cm): 0.50                                                                                                                                                                                                                                                               |                   |                                                                                                                                                                                  |                     | Braid <input type="checkbox"/>                                              |            |                     |                     |
| Channel Pattern: Irregular, Wandering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Islands: None                                                                                                                                                                                                                                                              |                   | DISTURBANCE INDICATORS                                                                                                                                                           |                     | O1 B1 B2 B3 D1 D2 D3                                                        |            |                     |                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| Confinement: Frequently Confined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                                                                                                                                                                                                                                            |                   | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                                                    |                     |                                                                             |            |                     |                     |
| Morphology: LC Large Channel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Type: SWD LWD B U DP OV IV                                                                                                                                                                                                                                                 |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| LWD: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Amount: N N N S D T T                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| LWD Dist: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                | Location: P/S/O: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |                   | FSZ: <input type="checkbox"/>                                                                                                                                                    |                     |                                                                             |            |                     |                     |
| Right Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                         |                   | Crown Closure 0%                                                                                                                                                                 |                     |                                                                             |            |                     |                     |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                         |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| Right Bank: Rip.Veg: Wetland                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Stage: Not Applicable                                                                                                                                                                                                                                                      |                   | Instream Veg: None <input type="checkbox"/> Algae <input checked="" type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/>                 |                     |                                                                             |            |                     |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | Stage: Not Applicable                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Capture Method | Number of Events                                                                                                                                                                                                                                                           | Length fished (m) | Total Time                                                                                                                                                                       | Voltage             | Species                                                                     | Total Fish | Minimum Length (mm) | Maximum Length (mm) |
| 186                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | EF             | 1                                                                                                                                                                                                                                                                          | 100               | 156 sec                                                                                                                                                                          | 600                 | NFC                                                                         | 0          |                     |                     |
| <p>Roll#: 4, Frame# 3, CD# 1, Image# 76, Direction: U, SCALE/COMMENT: book</p> <p>Roll#: 4, Frame# 4, CD# 1, Image# 77, Direction: D, SCALE/COMMENT: book</p> <p>SITE CARD : site=UTM</p> <p>MORPHOLOGY : Flows through incised channel in high bog. Headwaters at UTM 10.310528.6040519 (end of reach, end of channel, end of stream)</p> <p>OTHER HABITAT : No suitable rainbow trout habitat - water stagnant or flowing very slowly. Full of orange algae and thick detritus. Water acidic, likely depletion of oxygen in summer and winter.</p> |                |                                                                                                                                                                                                                                                                            |                   |                                                                                                                                                                                  |                     |                                                                             |            |                     |                     |

**BFP FFHI 2001 - Upper Pinkut Watershed**

| Reach # | ILP Map # | ILP # |
|---------|-----------|-------|
| 1.0     |           |       |

| <b>STREAM REFERENCING</b>                                                                                                                                                                                                              |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------|--------------------------------------|--------------------------------|-----------------------------------|-------------------------------|----|----|----|----|
| <b>Gazetted Name:</b>                                                                                                                                                                                                                  |                                         |                                         |                                                                                                                                            |                                    | <b>Local Name:</b>                         |                                      |                                |                                   |                               |    |    |    |    |
| Watershed Code: 480-927700-90000-31000-0000-0000-000-000-000-000-000                                                                                                                                                                   |                                         |                                         |                                                                                                                                            |                                    | ILP Map #:                                 |                                      | ILP #:                         |                                   |                               |    |    |    |    |
| <b>REACH</b>                                                                                                                                                                                                                           |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Reach #: 1.0                                                                                                                                                                                                                           |                                         | UTM(Zone/East/North): 10.310066.6040471 |                                                                                                                                            |                                    |                                            | Sample Type: Random                  |                                |                                   |                               |    |    |    |    |
| Length (km): .49                                                                                                                                                                                                                       |                                         | Coupling: Decoupled                     |                                                                                                                                            | Magnitude: 4                       |                                            | BGC Zone: ESSF                       |                                |                                   |                               |    |    |    |    |
| Gradient (%): 1.4                                                                                                                                                                                                                      |                                         | Confinement: Unconfined                 |                                                                                                                                            | Order: 2                           |                                            | Open water: Present                  |                                |                                   |                               |    |    |    |    |
| US Elev (m): 1145                                                                                                                                                                                                                      |                                         | Islands: None Visible                   |                                                                                                                                            | Riparian Vegetation: Wetland       |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| <b>SITE</b>                                                                                                                                                                                                                            |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Site #: 187                                                                                                                                                                                                                            |                                         | Field UTM 10.310528.6040519             |                                                                                                                                            | Agency: C016                       |                                            | Crew: MJ/MG                          |                                | Date: 2001-09-22                  |                               |    |    |    |    |
| Site Length (m): 100                                                                                                                                                                                                                   |                                         | GIS UTM..                               |                                                                                                                                            | Agency Name: FINS Consulting Ltd.  |                                            |                                      |                                |                                   |                               |    |    |    |    |
| <b>CHANNEL</b>                                                                                                                                                                                                                         |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| No Vis.Ch.: <input checked="" type="checkbox"/>                                                                                                                                                                                        | Intermittent: <input type="checkbox"/>  |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                    | Tribs.: <input type="checkbox"/>        |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                    |                                         | Channel Width (m): 0.00                 |                                                                                                                                            | Avg                                | Min                                        | Max                                  | #                              |                                   |                               |    |    |    |    |
| Med <input type="checkbox"/>                                                                                                                                                                                                           |                                         | Wetted Width (m): 0.00                  |                                                                                                                                            | 0.00                               | 0                                          | 0                                    | 0                              | Avg Min Max #                     |                               |    |    |    |    |
| High <input type="checkbox"/>                                                                                                                                                                                                          |                                         | Bankfull Depth (m): 0.00                |                                                                                                                                            | 0.00                               | 0                                          | 0                                    | 0                              | Gradient %: 0.00 0 0 0            |                               |    |    |    |    |
| Temp (C):                                                                                                                                                                                                                              |                                         | pH:                                     | Conductivity:                                                                                                                              |                                    | Turbidity: Turbid <input type="checkbox"/> |                                      | Low <input type="checkbox"/>   |                                   |                               |    |    |    |    |
|                                                                                                                                                                                                                                        |                                         |                                         |                                                                                                                                            |                                    | Moderate <input type="checkbox"/>          |                                      | Clear <input type="checkbox"/> |                                   |                               |    |    |    |    |
| <b>MORPHOLOGY</b>                                                                                                                                                                                                                      |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Bed Material: Dominant:                                                                                                                                                                                                                |                                         | D95 (cm):                               |                                                                                                                                            | Bars: Non <input type="checkbox"/> |                                            | Side <input type="checkbox"/>        |                                | Diagonal <input type="checkbox"/> |                               |    |    |    |    |
| Subdominant:                                                                                                                                                                                                                           |                                         | D (cm):                                 |                                                                                                                                            | Span <input type="checkbox"/>      |                                            | Mid-channel <input type="checkbox"/> |                                | Braid <input type="checkbox"/>    |                               |    |    |    |    |
| Channel Pattern:                                                                                                                                                                                                                       |                                         | Islands:                                |                                                                                                                                            | DISTURBANCE INDICATORS             |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Coupling:                                                                                                                                                                                                                              |                                         |                                         |                                                                                                                                            | O1                                 | B1                                         | B2                                   | B3                             | D1                                | D2                            | D3 |    |    |    |
| Confinement:                                                                                                                                                                                                                           |                                         |                                         |                                                                                                                                            | C1                                 | C2                                         | C3                                   | C4                             | C5                                | S1                            | S2 | S3 | S4 | S5 |
| Morphology:                                                                                                                                                                                                                            |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| <b>COVER</b>                                                                                                                                                                                                                           |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Total Cover:                                                                                                                                                                                                                           | Type:                                   | SWD                                     | LWD                                                                                                                                        | B                                  | U                                          | DP                                   | OV                             | IV                                |                               |    |    |    |    |
| LWD:                                                                                                                                                                                                                                   | Amount:                                 |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| LWD Dist:                                                                                                                                                                                                                              | Location: P/S/O:                        |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   | FSZ: <input type="checkbox"/> |    |    |    |    |
| Right Bank: Shape:                                                                                                                                                                                                                     | Texture: Fines <input type="checkbox"/> | Gravel <input type="checkbox"/>         | Cobble <input type="checkbox"/>                                                                                                            | Boulder <input type="checkbox"/>   | Rock <input type="checkbox"/>              | Manmade <input type="checkbox"/>     | Crown Closure                  |                                   |                               |    |    |    |    |
| Left Bank: Shape:                                                                                                                                                                                                                      | Texture: Fines <input type="checkbox"/> | Gravel <input type="checkbox"/>         | Cobble <input type="checkbox"/>                                                                                                            | Boulder <input type="checkbox"/>   | Rock <input type="checkbox"/>              | Manmade <input type="checkbox"/>     |                                |                                   |                               |    |    |    |    |
| Right Bank: Rip.Veg: Wetland                                                                                                                                                                                                           | Stage: Not Applicable                   |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                    | Stage: Not Applicable                   |                                         | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input type="checkbox"/> Vascular <input type="checkbox"/> |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| SITE CARD : site=UTM                                                                                                                                                                                                                   |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| SITE CARD : No channel present in wetland bog.                                                                                                                                                                                         |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |
| OTHER HABITAT : No fish habitat - nothing but a bog.                                                                                                                                                                                   |                                         |                                         |                                                                                                                                            |                                    |                                            |                                      |                                |                                   |                               |    |    |    |    |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # ILP Map # ILP #

1.0 093K.041 41039

## STREAM REFERENCING

Gazetted Name:

Local Name:

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

ILP Map #: 093K.041

ILP #: 41039

## REACH

Reach #: 1.0 UTM(Zone/East/North): 10.310562.6040526 Sample Type: Random  
 Length (km): .70 Coupling: Decoupled Magnitude: 1 BGC Zone: ESSF  
 Gradient (%): 3.1 Confinement: Unconfined Order: 1 Open water: Absent  
 US Elev (m): 1160 Islands: NONE Riparian Vegetation: Coniferous  
 Bars: None ☒ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐ Braid ☐ Landuse: None/natural

## SITE

Site #: 188 Field UTM 10.310548.6040546 Agency: C016 Crew: MJ/MG Date: 2001-09-22  
 Site Length (m): 100 GIS UTM.. Agency Name: FINS Consulting Ltd.

## CHANNEL

No Vis.Ch.: ☒ Intermittent: ☐  
 Dewatered: ☐ Tribs.: ☐  
 Stage: Low ☐ Med ☐ High ☐ Temp (C): pH: Conductivity:  
 Turbidity: Turbid ☐ Low ☐ Moderate ☐ Clear ☐

|                     | Avg  | Min | Max | # |
|---------------------|------|-----|-----|---|
| Channel Width (m):  | 0.00 | 0   | 0   | 0 |
| Wetted Width (m):   | 0.00 | 0   | 0   | 0 |
| Bankfull Depth (m): | 0.00 | 0   | 0   | 0 |

|                 | Avg  | Min | Max | # |
|-----------------|------|-----|-----|---|
| Gradient %:     | 0.00 | 0   | 0   | 0 |
| Pool Depth (m): | 0.00 | 0   | 0   | 0 |

## MORPHOLOGY

Bed Material: Dominant: D95 (cm): Bars: Non ☐ Side ☐ Diagonal ☐ Mid-channel ☐ Span ☐  
 Subdominant: D (cm): Braid ☐  
 Channel Pattern: Islands: DISTURBANCE INDICATORS O1 B1 B2 B3 D1 D2 D3  
 Coupling: C1 C2 C3 C4 C5 S1 S2 S3 S4 S5  
 Confinement: Morphology:

## COVER

Total Cover: Type: SWD LWD B U DP OV IV  
 Amount: Location: P/S/O: FSZ: ☐  
 LWD: LWD Dist: Right Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐ Crown Closure  
 Left Bank: Shape: Texture: Fines ☐ Gravel ☐ Cobble ☐ Boulder ☐ Rock ☐ Manmade ☐  
 Right Bank: Rip.Veg: Stage: Instream Veg: None ☐ Algae ☐ Moss ☐ Vascular ☐  
 Left Bank: Rip.Veg: Stage:

## FEATURES

| NID Map | NID   | Type | Hgt | Method | Lg | Method | Photo       | AirPhoto | UTM (Z/E/N) |
|---------|-------|------|-----|--------|----|--------|-------------|----------|-------------|
| 93K.041 | 31881 | BMA  |     | GE     |    | GE     | R: F: L: #: |          | ..          |

Comments: No drainage anywhere - just wetland.

SITE CARD : site=UTM

OTHER HABITAT : No fish habitat - no kind of drainage at mapped location, no connection to parent stream.

OTHER HABITAT : Nice brook with good habitat overall.

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # 3.0 ILP Map # 093K.051 ILP # 51006

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------|---------------------|-------|-----|-----|---|---|----|----|----|---------|---|---|---|---|---|---|---|------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       | Local Name:                         |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       | ILP Map #: 093K.051                 |                                                                                                                                    | ILP #: 51006                        |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Reach #: 3.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     | UTM (Zone/East/North): ..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |                                                                                                                                                       | Sample Type: Random                 |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Length (km): .27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     | Coupling: Partially Coupl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     | Magnitude: 1                                                                                                                                          |                                     | BGC Zone: ESSF                                                                                                                     |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Gradient (%): 7.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     | Confinement: Frequently Confin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     | Order: 1                                                                                                                                              |                                     | Open water: Absent                                                                                                                 |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| US Elev (m): 1313                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                     | Islands: NONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     | Riparian Vegetation: Coniferous                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                                                                                                     |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Site #: 190                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     | Field UTM 9.694074.6044140                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     | Agency: C016                                                                                                                                          |                                     | Crew: MJ/MG                                                                                                                        |                                     | Date: 2001-09-23                                                            |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | GIS UTM..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     | Agency Name: FINS Consulting Ltd.                                                                                                                     |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | Intermittent: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     | Avg                                                                                                                                                   |                                     | Min                                                                                                                                |                                     | Max                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     | Tribes.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     | Channel Width (m): 0.98                                                                                                                               |                                     | 0.7                                                                                                                                |                                     | 1.3                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Wetted Width (m): 0.98                                                                                                                                |                                     | 0.7                                                                                                                                |                                     | 1.3                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Bankfull Depth (m): 0.17                                                                                                                              |                                     | 0.1                                                                                                                                |                                     | 0.2                                                                         |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| High <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Temp (C): 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     | pH: 6.7                                                                                                                                               |                                     | Conductivity: 20                                                                                                                   |                                     | Turbidity: Turbid <input type="checkbox"/> Low <input type="checkbox"/>     |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     | Moderate <input type="checkbox"/> Clear <input checked="" type="checkbox"/> |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | D95 (cm): 20.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Bars: Non <input checked="" type="checkbox"/>                                                                                                         |                                     | Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> |                                     | Braid <input type="checkbox"/>                                              |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Subdominant: Cobble                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     | D (cm): 1.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | Islands: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     | DISTURBANCE INDICATORS                                                                                                                                |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | O1 B1 B2 B3 D1 D2 D3                                                                                                                                  |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Confinement: Frequently Confined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | C1 C2 C3 C4 C5 S1 S2 S3 S4 S5                                                                                                                         |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Morphology: RP Riffle Pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Type:</td> <td>SWD</td> <td>LWD</td> <td>B</td> <td>U</td> <td>DP</td> <td>OV</td> <td>IV</td> </tr> <tr> <td>Amount:</td> <td>T</td> <td>T</td> <td>T</td> <td>S</td> <td>D</td> <td>T</td> <td>T</td> </tr> <tr> <td>Location: P/S/O:</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table> |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     | Type: | SWD | LWD | B | U | DP | OV | IV | Amount: | T | T | T | S | D | T | T | Location: P/S/O: | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Type:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SWD                                 | LWD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | B                                   | U                                                                                                                                                     | DP                                  | OV                                                                                                                                 | IV                                  |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Amount:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | T                                   | T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | T                                   | S                                                                                                                                                     | D                                   | T                                                                                                                                  | T                                   |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Location: P/S/O:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                                   | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>                                                                                                | <input checked="" type="checkbox"/> |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| LWD: Few                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     | FSZ: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| LWD Dist: Evenly Distributed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Right Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     | Crown Closure 21-40%                                                                                                                                  |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Left Bank: Shape: V - shape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     | Texture: Fines <input checked="" type="checkbox"/> Gravel <input type="checkbox"/> Cobble <input checked="" type="checkbox"/> Boulder <input type="checkbox"/> Rock <input type="checkbox"/> Manmade <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Right Bank: Rip.Veg: Coniferous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                     | Stage: Mature forest                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     | Instream Veg: None <input type="checkbox"/> Algae <input type="checkbox"/> Moss <input checked="" type="checkbox"/> Vascular <input type="checkbox"/> |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                     | Stage: Mature forest                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Capture Method                      | Number of Events                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Length fished (m)                   | Total Time                                                                                                                                            | Voltage                             | Species                                                                                                                            | Total Fish                          | Minimum Length (mm)                                                         | Maximum Length (mm) |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| 190                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | EF                                  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 150                                 | 99 sec                                                                                                                                                | 600                                 | NFC                                                                                                                                | 0                                   |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |
| <p>Roll#: 4, Frame# 17, CD# 1, Image# 90, Direction: U, SCALE/COMMENT: book</p> <p>Roll#: 4, Frame# 18, CD# 1, Image# 91, Direction: D, SCALE/COMMENT: cam bag</p> <p>SITE CARD : site=UTM</p> <p>SITE CARD : Observed channel deteriorates d/s in wetland in reach 2.</p> <p>MORPHOLOGY : Flows through forested swale.</p> <p>SPAWNING HABITAT : None - no suitable substrate.</p> <p>OVERWINTERING HABITAT : None - too shallow.</p> <p>OTHER HABITAT : Low to moderate value habitat - creek fairly shallow but has relatively good rearing habitat in abundant and diverse cover.</p> |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                     |                                                                                                                                                       |                                     |                                                                                                                                    |                                     |                                                                             |                     |       |     |     |   |   |    |    |    |         |   |   |   |   |   |   |   |                  |                                     |                                     |                                     |                                     |                                     |                                     |                                     |

# FDIS Reach/Site Summary

BFP FFHI 2001 - Upper Pinkut Watershed

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

Reach # ILP Map # ILP #

1.0 093K.051 51009

| STREAM REFERENCING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------|-------------------|-----------------------------------------------|---------------------|--------------------------------------------|--------------|----------------------------------------------|---------------------|
| Gazetted Name:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                                                    |                   |                                               | Local Name:         |                                            |              |                                              |                     |
| Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                    |                   |                                               | ILP Map #: 093K.051 |                                            | ILP #: 51009 |                                              |                     |
| REACH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
| Reach #: 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                | UTM(Zone/East/North): 10.306905.6043648            |                   |                                               |                     | Sample Type: Biased                        |              |                                              |                     |
| Length (km): .56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                | Coupling: Decoupled                                |                   | Magnitude: 1                                  |                     | BGC Zone: SBS                              |              |                                              |                     |
| Gradient (%): 2.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Confinement: Unconfined                            |                   | Order: 1                                      |                     | Open water: Present                        |              |                                              |                     |
| US Elev (m): 1270                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | Islands: NONE                                      |                   | Riparian Vegetation: Wetland                  |                     |                                            |              |                                              |                     |
| Bars: None <input checked="" type="checkbox"/> Side <input type="checkbox"/> Diagonal <input type="checkbox"/> Mid-channel <input type="checkbox"/> Span <input type="checkbox"/> Braid <input type="checkbox"/> Landuse: None/natural                                                                                                                                                                                                                                                                                                                                                                                              |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
| SITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
| Site #: 191                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Field UTM 10.306478.6043377                        |                   | Agency: C016                                  |                     | Crew: MJ/MG                                |              | Date: 2001-09-23                             |                     |
| Site Length (m): 150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | GIS UTM..                                          |                   | Agency Name: FINS Consulting Ltd.             |                     |                                            |              |                                              |                     |
| CHANNEL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
| No Vis.Ch.: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                | Intermittent: <input type="checkbox"/>             |                   | Avg                                           |                     | Min                                        |              | Max                                          |                     |
| Dewatered: <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Tribes.: <input type="checkbox"/>                  |                   | Channel Width (m): 1.02                       |                     | 0.7                                        |              | 1.5                                          |                     |
| Stage: Low <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                    |                   | Wetted Width (m): 1.02                        |                     | 0.7                                        |              | 1.5                                          |                     |
| Med <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   | Bankfull Depth (m): 0.77                      |                     | 0.7                                        |              | 0.8                                          |                     |
| High <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
| Temp (C): 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | pH: 6.8                                            |                   | Conductivity: 20                              |                     | Turbidity: Turbid <input type="checkbox"/> |              | Low <input type="checkbox"/>                 |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   |                                               |                     | Moderate <input type="checkbox"/>          |              | Clear <input checked="" type="checkbox"/>    |                     |
| MORPHOLOGY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
| Bed Material: Dominant: Fines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                | D95 (cm): 0.01                                     |                   | Bars: Non <input checked="" type="checkbox"/> |                     | Side <input type="checkbox"/>              |              | Diagonal <input type="checkbox"/>            |                     |
| Subdominant: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | D (cm): 0.01                                       |                   |                                               |                     | Mid-channel <input type="checkbox"/>       |              | Span <input type="checkbox"/>                |                     |
| Channel Pattern: Sinuous                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Islands: None                                      |                   | DISTURBANCE                                   |                     | O1                                         |              | B1                                           |                     |
| Coupling: Decoupled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                                                    |                   | INDICATORS                                    |                     | B2                                         |              | B3                                           |                     |
| Confinement: Frequently Confined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                                                    |                   |                                               |                     | D1                                         |              | D2                                           |                     |
| Morphology: LC Large Channel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                                                    |                   |                                               |                     | D3                                         |              |                                              |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   | C1                                            |                     | C2                                         |              | C3                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   | C4                                            |                     | C5                                         |              | S1                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   | S2                                            |                     | S3                                         |              | S4                                           |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   | S5                                            |                     |                                            |              |                                              |                     |
| COVER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
| Total Cover: Abundant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                | Type: SWD                                          |                   | LWD                                           |                     | B                                          |              | U                                            |                     |
| LWD: None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                | Amount: N                                          |                   | N                                             |                     | N                                          |              | S                                            |                     |
| LWD Dist: Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                | Location: P/S/O:                                   |                   | <input type="checkbox"/>                      |                     | <input type="checkbox"/>                   |              | <input type="checkbox"/>                     |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   | <input type="checkbox"/>                      |                     | <input type="checkbox"/>                   |              | <input type="checkbox"/>                     |                     |
| Right Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input type="checkbox"/>               |                     | Cobble <input type="checkbox"/>            |              | Boulder <input type="checkbox"/>             |                     |
| Left Bank: Shape: Undercut                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Texture: Fines <input checked="" type="checkbox"/> |                   | Gravel <input type="checkbox"/>               |                     | Cobble <input type="checkbox"/>            |              | Boulder <input type="checkbox"/>             |                     |
| Right Bank: Rip.Veg: Grass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                | Stage: Not Applicable                              |                   | Rock <input type="checkbox"/>                 |                     | Manmade <input type="checkbox"/>           |              | Crown Closure                                |                     |
| Left Bank: Rip.Veg:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | Stage: Not Applicable                              |                   | Instream Veg: None <input type="checkbox"/>   |                     | Algae <input checked="" type="checkbox"/>  |              | Moss <input type="checkbox"/>                |                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                                                    |                   |                                               |                     |                                            |              | Vascular <input checked="" type="checkbox"/> |                     |
| FISH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |
| Site Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Capture Method | Number of Events                                   | Length fished (m) | Total Time                                    | Voltage             | Species                                    | Total Fish   | Minimum Length (mm)                          | Maximum Length (mm) |
| 191                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EF             | 1                                                  | 150               | 190 sec                                       | 700                 | NFC                                        | 0            |                                              |                     |
| <p>Roll#: 4, Frame# 13, CD# 1, Image# 86, Direction: U, SCALE/COMMENT: cam bag</p> <p>Roll#: 4, Frame# 14, CD# 1, Image# 87, Direction: D, SCALE/COMMENT: cam bag</p> <p>SITE CARD: site=UTM</p> <p>SITE CARD: Unlikely fish use - no fish observed in lake.</p> <p>MORPHOLOGY: Flows through sub-alpine meadow in deep incised channel.</p> <p>WATERBODY: No fish observed in lake.</p> <p>OVERWINTERING HABITAT: In deep channel or lake.</p> <p>OTHER HABITAT: Good CT habitat but none found. Some spawning gravels in lower 20m of reach, then all deep run with good cover for CT in slow flow. No rainbow trout habitat.</p> |                |                                                    |                   |                                               |                     |                                            |              |                                              |                     |

**Reconnaissance (1:20,000) Fish and Fish Habitat  
Inventory**

**Upper Pinkut Creek Watershed  
2001/02**

- **Appendix II: Photographs**

**Index of Photos Arranged by Roll and Frame**  
**\* See Reach/Site Summary for Site Photo Reference Information**

| Site | Roll # | Frame # | Neg # | CD # | Image # | Watershed Code              | Gazetted Name | ILP Map  | ILP   | Reach | Dir | Owner | Focal Length | Date       | Comment                               |
|------|--------|---------|-------|------|---------|-----------------------------|---------------|----------|-------|-------|-----|-------|--------------|------------|---------------------------------------|
| 154  | 2      | 1       | 1     | 1    | 26      | 480-927700                  | Pinkut Creek  |          |       | 10    | U   | SITE  | STD          | 2001-09-21 | Mac                                   |
| 154  | 2      | 2       | 2     | 1    | 27      | 480-927700                  | Pinkut Creek  |          |       | 10    | D   | SITE  | STD          | 2001-09-21 | Mac                                   |
| 189  | 2      | 3       | 3     | 1    | 28      | 480-927700-91300            |               |          |       | 1     | U   | SITE  | STD          | 2001-09-21 | cam bag                               |
| 189  | 2      | 4       | 4     | 1    | 29      | 480-927700-91300            |               |          |       | 1     | D   | SITE  | STD          | 2001-09-21 | probe                                 |
| 166  | 2      | 5       | 5     | 1    | 30      |                             |               | 093K.041 | 41009 | 1     | U   | SITE  | STD          | 2001-09-21 | boot                                  |
| 166  | 2      | 6       | 6     | 1    | 31      |                             |               | 093K.041 | 41009 | 1     | D   | SITE  | STD          | 2001-09-21 | cam bag                               |
| 178  | 2      | 7       | 7     | 1    | 32      |                             |               | 093K.041 | 41027 | 1     | U   | SITE  | STD          | 2001-09-21 | cam bag                               |
| 178  | 2      | 8       | 8     | 1    | 33      |                             |               | 093K.041 | 41027 | 1     | D   | SITE  | STD          | 2001-09-21 | water tester.                         |
| 181  | 2      | 9       | 9     | 1    | 34      | 480-927700-90000            |               |          |       | 5     | U   | SITE  | STD          | 2001-09-21 | cam bag                               |
| 181  | 2      | 10      | 10    | 1    | 35      | 480-927700-90000            |               |          |       | 5     | D   | SITE  | STD          | 2001-09-21 | cam bag                               |
| 182  | 2      | 11      | 11    | 1    | 36      | 480-927700-90000            |               |          |       | 6     | U   | SITE  | STD          | 2001-09-21 | cam bag                               |
| 182  | 2      | 12      | 12    | 1    | 37      | 480-927700-90000            |               |          |       | 6     | D   | SITE  | STD          | 2001-09-21 | cam bag                               |
| 185  | 2      | 13      | 13    | 1    | 38      | 480-927700-90000-17200      |               |          |       | 1     | X   | SITE  | STD          | 2001-09-21 | No scale.                             |
| 180  | 2      | 14      | 14    | 1    | 39      |                             |               | 093K.041 | 41034 | 1     | D   | SITE  | STD          | 2001-09-21 | shocker                               |
| 180  | 2      | 15      | 15    | 1    | 40      |                             |               | 093K.041 | 41034 | 1     | U   | SITE  | STD          | 2001-09-21 | boot                                  |
| 171  | 2      | 16      | 16    | 1    | 41      |                             |               | 093K.041 | 41013 | 4     | U   | SITE  | STD          | 2001-09-19 | mg - cascade in features.             |
| 171  | 2      | 17      | 17    | 1    | 42      |                             |               | 093K.041 | 41013 | 4     | U   | SITE  | STD          | 2001-09-19 | boot                                  |
| 171  | 2      | 18      | 18    | 1    | 43      |                             |               | 093K.041 | 41013 | 4     | D   | SITE  | STD          | 2001-09-19 | cam bag                               |
| 170  | 2      | 19      | 19    | 1    | 44      |                             |               | 093K.041 | 41013 | 2     | U   | SITE  | STD          | 2001-09-19 | Mac                                   |
| 170  | 2      | 20      | 20    | 1    | 45      |                             |               | 093K.041 | 41013 | 2     | D   | SITE  | STD          | 2001-09-19 | mg                                    |
| 177  | 2      | 21      | 21    | 1    | 46      |                             |               | 093K.041 | 41023 | 2     | X   | SITE  | STD          | 2001-09-19 | Mac - POD                             |
| 177  | 2      | 22      | 22    | 1    | 47      |                             |               | 093K.041 | 41023 | 2     | U   | SITE  | STD          | 2001-09-19 | boot                                  |
| 168  | 2      | 23      | 23    | 1    | 48      | 480-927700-85400            |               |          |       | 3     | U   | SITE  | STD          | 2001-09-19 | cam bag                               |
| 168  | 2      | 24      | 24    | 1    | 49      | 480-927700-85400            |               |          |       | 3     | D   | SITE  | STD          | 2001-09-19 | boot                                  |
| 183  | 4      | 1       | 1     | 1    | 74      | 480-927700-90000            |               |          |       | 11    | U   | SITE  | STD          | 2001-09-22 | probe                                 |
| 183  | 4      | 2       | 2     | 1    | 75      | 480-927700-90000            |               |          |       | 11    | D   | SITE  | STD          | 2001-09-22 | cam bag                               |
| 186  | 4      | 3       | 3     | 1    | 76      | 480-927700-90000-31000      |               |          |       | 0.1   | U   | SITE  | STD          | 2001-09-22 | book                                  |
| 186  | 4      | 4       | 4     | 1    | 77      | 480-927700-90000-31000      |               |          |       | 0.1   | D   | SITE  | STD          | 2001-09-22 | book                                  |
| 172  | 4      | 5       | 5     | 1    | 78      | 480-927700-85400-27100      |               |          |       | 1     | U   | SITE  | STD          | 2001-09-22 | cam bag                               |
| 172  | 4      | 6       | 6     | 1    | 79      | 480-927700-85400-27100      |               |          |       | 1     | BD  | SITE  | STD          | 2001-09-22 | cam bag                               |
| 175  | 4      | 7       | 7     | 1    | 80      | 480-927700-85400-48400      |               |          |       | 1     | U   | SITE  | STD          | 2001-09-22 | Mac                                   |
| 175  | 4      | 8       | 8     | 1    | 81      | 480-927700-85400-48400      |               |          |       | 1     | D   | SITE  | STD          | 2001-09-22 | Mac                                   |
| 176  | 4      | 9       | 9     | 1    | 82      | 480-927700-85400-48400-2600 |               |          |       | 1     | U   | SITE  | STD          | 2001-09-22 | boot                                  |
| 167  | 4      | 10      | 10    | 1    | 83      | 480-927700-85400            |               |          |       | 2     | U   | SITE  | STD          | 2001-09-22 | culvert                               |
| 167  | 4      | 11      | 11    | 1    | 84      | 480-927700-85400            |               |          |       | 2     | D   | SITE  | STD          | 2001-09-22 | culvert                               |
| 174  | 4      | 12      | 12    | 1    | 85      |                             |               | 093K.041 | 41020 | 3     | X   | SITE  | STD          | 2001-09-22 | boot                                  |
| 191  | 4      | 13      | 13    | 1    | 86      |                             |               | 093K.051 | 51009 | 1     | U   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 191  | 4      | 14      | 14    | 1    | 87      |                             |               | 093K.051 | 51009 | 1     | D   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 184  | 4      | 15      | 15    | 1    | 88      | 480-927700-90000            |               |          |       | 19    | U   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 184  | 4      | 16      | 16    | 1    | 89      | 480-927700-90000            |               |          |       | 19    | D   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 190  | 4      | 17      | 17    | 1    | 90      |                             |               | 093K.051 | 51006 | 3     | U   | SITE  | STD          | 2001-09-23 | book                                  |
| 190  | 4      | 18      | 18    | 1    | 91      |                             |               | 093K.051 | 51006 | 3     | D   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 156  | 4      | 19      | 19    | 1    | 92      | 480-927700                  | Pinkut Creek  |          |       | 16    | D   | SITE  | STD          | 2001-09-23 | mg                                    |
| 156  | 4      | 20      | 20    | 1    | 93      | 480-927700                  | Pinkut Creek  |          |       | 16    | U   | SITE  | STD          | 2001-09-23 | mg                                    |
| 155  | 4      | 22      | 22    | 1    | 95      | 480-927700                  | Pinkut Creek  |          |       | 14    | D   | SITE  | STD          | 2001-09-23 | mg                                    |
| 155  | 4      | 23      | 23    | 1    | 96      | 480-927700                  | Pinkut Creek  |          |       | 14    | U   | SITE  | STD          | 2001-09-23 | mg                                    |
| 161  | 4      | 24      | 24    | 1    | 97      | 480-927700-69200-72600      |               |          |       | 1     | U   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 161  | 4      | 25      | 25    | 1    | 98      | 480-927700-69200-72600      |               |          |       | 1     | D   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 159  | 6      | 1       | 1     | 1    | 123     | 480-927700-69200            |               |          |       | 8     | U   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 159  | 6      | 2       | 2     | 1    | 124     | 480-927700-69200            |               |          |       | 8     | D   | SITE  | STD          | 2001-09-23 | cam bag                               |
| 157  | 6      | 3       | 3     | 1    | 125     |                             |               | 093K.042 | 42001 | 1     | U   | SITE  | STD          | 2001-09-24 | cam bag                               |
| 157  | 6      | 4       | 4     | 1    | 126     |                             |               | 093K.042 | 42001 | 1     | D   | SITE  | STD          | 2001-09-24 | cam bag                               |
| 163  | 6      | 5       | 5     | 1    | 127     | 480-927700-78100            |               |          |       | 1     | U   | SITE  | STD          | 2001-09-24 | cam bag                               |
| 163  | 6      | 6       | 6     | 1    | 128     | 480-927700-78100            |               |          |       | 1     | D   | SITE  | STD          | 2001-09-24 | cam bag                               |
| 164  | 6      | 7       | 7     | 1    | 129     | 480-927700-78100            |               |          |       | 2     | U   | SITE  | STD          | 2001-09-24 | cam bag                               |
| 164  | 6      | 8       | 8     | 1    | 130     | 480-927700-78100            |               |          |       | 2     | D   | SITE  | STD          | 2001-09-24 | cam bag                               |
| 162  | 6      | 9       | 9     | 1    | 131     |                             |               | 093K.042 | 42025 | 1     | U   | SITE  | STD          | 2001-09-23 | no scale - meadow.                    |
| 158  | 6      | 10      | 10    | 1    | 132     | 480-927700-69200            |               |          |       | 7     | U   | SITE  | STD          | 2001-09-24 | mg - BD in features at start of reach |
| 158  | 6      | 11      | 11    | 1    | 133     | 480-927700-69200            |               |          |       | 7     | U   | SITE  | STD          | 2001-09-24 | trees - wetland reach.                |
| 160  | 6      | 12      | 12    | 1    | 134     | 480-927700-69200-38200      |               |          |       | 2     | U   | SITE  | STD          | 2001-09-24 | cam bag                               |
| 160  | 6      | 13      | 13    | 1    | 135     | 480-927700-69200-38200      |               |          |       | 2     | D   | SITE  | STD          | 2001-09-24 | binder                                |





R2 F9 WSC 480-927700-90000 Reach 5 Site 181



R2 F10 WSC 480-927700-90000 Reach 5 Site 181



R2 F11 WSC 480-927700-90000 Reach 6 Site 182



R2 F12 WSC 480-927700-90000 Reach 6 Site 182



R2 F13 WSC 480-927700-90000-17200 Reach 1 Site 185



R2 F14 ILP 41034 Reach 1 Site 180



R2 F15 ILP 41034 Reach 1 Site 180



R2 F23 WSC 480-927700-85400 Reach 3 Site 168



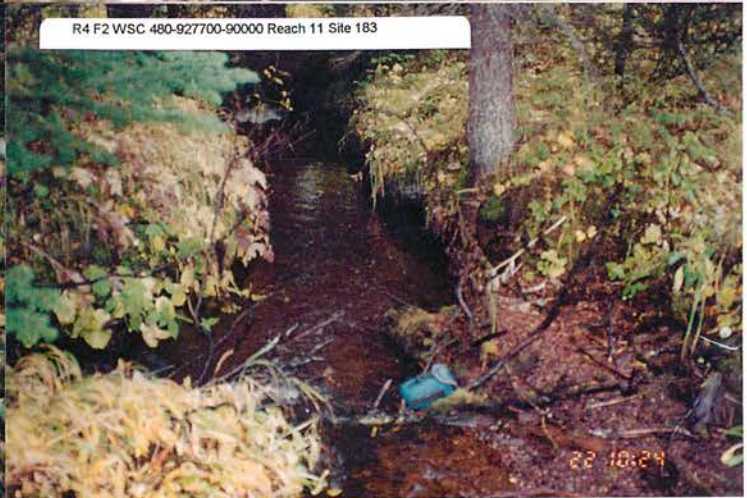
R2 F24 WSC 480-927700-85400 Reach 3 Site 168



R4 F1 WSC 480-927700-90000 Reach 11 Site 183



R4 F2 WSC 480-927700-90000 Reach 11 Site 183



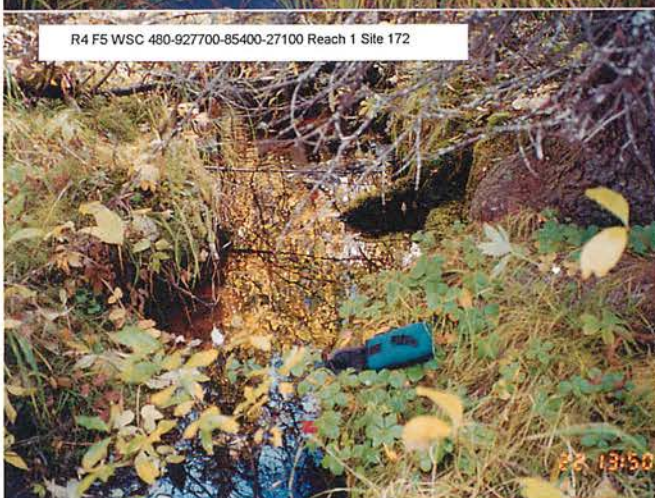
R4 F3 WSC 480-927700-90000-31000 Reach 0.1 Site 186



R4 F4 WSC 480-927700-90000-31000 Reach 0.1 Site 186



R4 F5 WSC 480-927700-85400-27100 Reach 1 Site 172



R4 F6 WSC 480-927700-85400-27100 Reach 1 Site 172



R4 F7 WSC 480-927700-85400-48400 Reach 1 Site 175



R4 F8 WSC 480-927700-85400-48400 Reach 1 Site 175



R4 F9 WSC 480-927700-85400-2600 Reach 1 Site 176



R4 F10 WSC 480-927700-85400 Reach 2 Site 167



R4 F11 WSC 480-927700-85400 Reach 2 Site 167



R4 F12 ILP 41020 Reach 3 Site 174



R4 F13 ILP 51009 Reach 1 Site 191



R4 F14 ILP 51009 Reach 1 Site 191



R4 F15 WSC 480-927700-90000 Reach 19 Site 184



R4 F16 WSC 480-927700-90000 Reach 19 Site 184



R4 F17 ILP 51006 Reach 3 Site 190



R4 F18 ILP 51006 Reach 3 Site 190



R4 F19 WSC 480-927700 Reach 16 Site 156



R4 F20 WSC 480-927700 Reach 16 Site 156



R4 F22 WSC 480-927700 Reach 14 Site 155



R4 F23 WSC 480-927700 Reach 14 Site 155



R4 F24 WSC 480-927700-69200-72600 Reach 1 Site 161



R4 F25 WSC 480-927700-69200-72600 Reach 1 Site 161



R6 F1 WSC 480-927700-69200 Reach 8 Site 159



R6 F2 WSC 480-927700-69200 Reach 8 Site 159



R6 F3 ILP 42001 Reach 1 Site 157



R6 F4 ILP 42001 Reach 1 Site 157



R6 F5 WSC 480-927700-78100 Reach 1 Site 163



R6 F6 WSC 480-927700-78100 Reach 1 Site 163



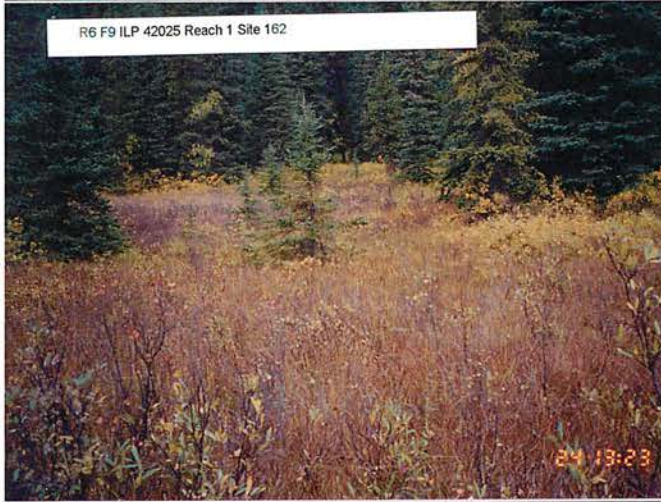
R6 F7 WSC 480-927700-78100 Reach 2 Site 164



R6 F8 WSC 480-927700-78100 Reach 2 Site 164



R6 F9 ILP 42025 Reach 1 Site 162



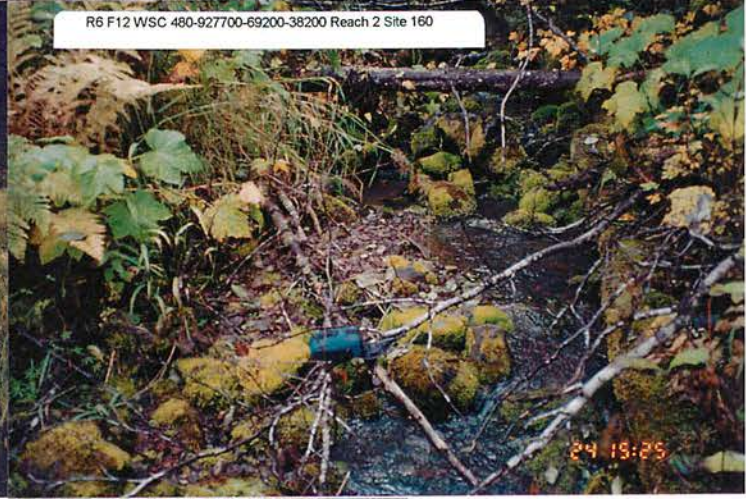
R6 F10 WSC 480-927700-69200 Reach 7 Site 158



R6 F11 WSC 480-927700-69200 Reach 7 Site 158



R6 F12 WSC 480-927700-69200-38200 Reach 2 Site 160



R6 F13 WSC 480-927700-69200-38200 Reach 2 Site 160



**Reconnaissance (1:20,000) Fish and Fish Habitat  
Inventory**

**Upper Pinkut Creek Watershed  
2001/02**

- **Appendix III: Hardcopy Maps**

**Reconnaissance (1:20,000) Fish and Fish Habitat  
Inventory**

**Upper Pinkut Creek Watershed  
2001/02**

- **Appendix IV: Phase Completion Reports**

## Project Phase Completion Report      Phases -1-3

FRBC Multi-Year Agreement Number: 0000105  
MELP Project Number: BFP-C016-001-2002  
FRBC Activity Number: 10437

| Project Name                                        | FDIS Project Number | FDIS Project WSC       |
|-----------------------------------------------------|---------------------|------------------------|
| Tributaries in the Endako River Watershed – 2001/02 | 1643                | 180-374000-95200-01900 |
| Tchesinkut Lake Tributaries – 2001/02               | 1643                | 180-374000-95200-01900 |
| Upper Pinkut Creek Watershed – 2001-02              | 1644                | 480-927700             |

Project Type: 1:20,000 Reconnaissance Fish and Fish Habitat Inventory  
Report Date: September 14, 2001  
Proponent: Babine Forest Products Co.  
Company/Agency: FINS Consulting Ltd.  
Contact Person: Shawn Redden  
Contact Phone: (250) 635-8481  
Contact E-mail: fins@telus.net  
Ministry Representative: Matt Jessop

### List of Deliverables Submitted

| Deliverable Product                    | Received | Approved (QA) |
|----------------------------------------|----------|---------------|
| Project Plan (digital and hardcopy)    | ✓        | SB            |
| Excel/Word File Names                  | ✓        | SB            |
| Project Overview Map                   | ✓        | SB            |
| List of References and Contacts        | ✓        | SB            |
| ILP Data Sheets (digital and hardcopy) | ✓        | SB            |
| ILP Map Status                         | ✓        | SB            |
| Interim Maps                           | ✓        | SB            |
| Reach Table (digital and hardcopy)     | ✓        | SB            |
| Lake Table (digital and hardcopy)      | ✓        | SB            |
| Sampling Design Sheet (from FDIS)      | ✓        | SB            |
| FDIS database (digital)                | ✓        | SB            |

### Activity Log

| Date                   | Activity                                                                                   |
|------------------------|--------------------------------------------------------------------------------------------|
| July 20 - Aug 29, 2001 | ILP assignment,, Data Review, Air Photo Interpretation and Data Entry, Draft Sampling Plan |
| September 18, 2001     | Meeting with Matt Jessop for sampling plan approval                                        |
| September 19, 2001     | Finalize Project Plan                                                                      |

## Summary of Work Completed

### *Project Area Statistics*

|                                          |                           |
|------------------------------------------|---------------------------|
| Project Area (km2)                       | 520                       |
| Number of TRIM mapsheets                 | 12                        |
| Largest watershed (stream order)         | 5                         |
| Number of 3rd order basins               | 21                        |
| km of stream in project area             | 770                       |
| Number of stream reaches in project area | 1267                      |
| Number of lakes in project area          | 49 (includes 13 wetlands) |

### *Planned Sampling Program*

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Number of reach sample sites proposed                           | 189 |
| Number of Primary lakes proposed                                | 0   |
| Number of secondary lakes proposed                              | 0   |
| Number of sites where cutblock level fish-stream ID is proposed | 0   |

### Summary of Phase Costs

As per budget attached in Appendix VI in project plan.

### Progress and Problems Summary

None

### Next Phase Project Plans and Constraints

Plan to implement field data collection in mid September.

### Ministry Representative Acceptance

|                                           |       |
|-------------------------------------------|-------|
| Report Submitted by: FINS Consulting Ltd. | Date: |
| Phase completion approved:                | Date: |
| Comments:                                 |       |

**Project Phase Completion Report      Phase -4**

FRBC Multi-Year Agreement Number:      0000105  
MELP Project Number:                      BFP-C016-001-2002  
FRBC Activity Number:                      10437

| Project Name                                        | FDIS Project Number | FDIS Project WSC       |
|-----------------------------------------------------|---------------------|------------------------|
| Tributaries in the Endako River Watershed – 2001/02 | 1643                | 180-374000-95200-01900 |
| Tchesinkut Lake Tributaries – 2001/02               | 1643                | 180-374000-95200-01900 |
| Upper Pinkut Creek Watershed – 2001-02              | 1644                | 480-927700             |

Project Type:                      1:20,000 Reconnaissance Fish and Fish Habitat Inventory  
Report Date:                      October 24, 2001  
Proponent:                      Babine Forest Products Co.  
Company/Agency:              FINS Consulting Ltd.  
Contact Person:                Shawn Redden  
Contact Phone:                (250) 635-8481  
Contact E-mail:                fins@telus.net  
Ministry Representative:      Matt Jessop

**List of Deliverables Submitted**

| Deliverable Product                        | Received | Approved (QA) |
|--------------------------------------------|----------|---------------|
| Field Site Cards and Fish Collection Cards | ✓        | SB            |

**Activity Log**

| Date                  | Activity                                                                                      |
|-----------------------|-----------------------------------------------------------------------------------------------|
| September 19-29, 2001 | Field sampling conducted. Field QA completed October 23, 2001 - joint QA across two projects. |

**Summary of Work Completed**

*Actual Sampling Program Completed*

|                                                               |     |
|---------------------------------------------------------------|-----|
| Number of Stream reaches Sampled                              | 187 |
| Number of Primary Lake Surveys Completed                      | 0   |
| Number of Secondary Lake Surveys Completed                    | 0   |
| Number of sites where cutblock level fish-stream ID completed | 0   |

**Summary of Phase Costs**

As per budget attached in Appendix VI in project plan.

**Progress and Problems Summary**

None

**Next Phase Project Plans and Constraints**

Plan to complete data entry, reporting and mapping by March 15, 2002.

**Ministry Representative Acceptance**

|                                           |                        |
|-------------------------------------------|------------------------|
| Report Submitted by: FINS Consulting Ltd. | Date: October 24, 2001 |
| Phase completion approved:                | Date:                  |
| Comments:                                 |                        |

## Project Phase Completion Report Phases -5-6

**FRBC Multi-Year Agreement Number:** 0000105  
**MELP Project Number:** BFP-C016-001-2002  
**FRBC Activity Number:** 10437

| Project Name                                        | FDIS Project Number | FDIS Project WSC       |
|-----------------------------------------------------|---------------------|------------------------|
| Tributaries in the Endako River Watershed – 2001/02 | 1643                | 180-374000-95200-01900 |
| Tchesinkut Lake Tributaries – 2001/02               | 1643                | 180-374000-95200-01900 |
| Upper Pinkut Creek Watershed – 2001-02              | 1644                | 480-927700             |

**Project Type:** 1:20,000 Reconnaissance Fish and Fish Habitat Inventory  
**Report Date:** March 28, 2002  
**Proponent:** Babine Forest Products Co.  
**Company/Agency:** FINS Consulting Ltd.  
**Contact Person:** Shawn Redden  
**Contact Phone:** (250) 635-8481  
**Contact E-mail:** fins@telus.net  
**Ministry Representative:** Matt Jessop

### List of Deliverables Submitted

| Deliverable Product                                                                                                                                                                                                                                                                        | Received | Approved (QA) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|
| 4 copies of watershed report (Includes embedded overview map)                                                                                                                                                                                                                              | ✓        | SB            |
| 2 digital copies of above report                                                                                                                                                                                                                                                           | ✓        | SB            |
| 4 copies of Project and Interpretive Maps                                                                                                                                                                                                                                                  | ✓        | SB            |
| 2 digital copies of above map export files                                                                                                                                                                                                                                                 | ✓        | SB            |
| 1 digital copy of above map plot files                                                                                                                                                                                                                                                     | ✓        | SB            |
| Hardcopy FISS update forms and maps (Attachment II)                                                                                                                                                                                                                                        | ✓        | SB            |
| Photodocumentation (Attachment III) <ul style="list-style-type: none"> <li>• Photodocumentation Form 1</li> <li>• Photodocumentation report printout (Excel spreadsheet - Export from FDIS)</li> <li>• Indexed album of all negatives</li> <li>• 2 indexed copies of photo CD's</li> </ul> | ✓        | SB            |
| Field Data (Attachment IV) <ul style="list-style-type: none"> <li>• Field site cards, fish collection forms</li> </ul>                                                                                                                                                                     | ✓        | SB            |
| Digital Data (attachment V – see readme.txt file)                                                                                                                                                                                                                                          | ✓        | SB            |
| 1 hardcopy and 1 digital copy of QA report                                                                                                                                                                                                                                                 | ✓        | SB            |
| 1 hardcopy and 1 digital copy of Phase Completion Report                                                                                                                                                                                                                                   | ✓        | SB            |

## Activity Log

| Date                         | Activity                                                                      |
|------------------------------|-------------------------------------------------------------------------------|
| Nov 1, 2001 – March 18, 2002 | Data entry into FDIS database, watershed and lake report compilation, mapping |
| March 19, 2002               | Submit report and maps to QA (ACER)                                           |
| March 20–27, 2002            | Address ministry and QA review of report and maps                             |

## Summary of Work Completed

### *Verification of Project Area Statistics*

|                                          |                           |
|------------------------------------------|---------------------------|
| Project Area (km2)                       | 520                       |
| Number of TRIM mapsheets                 | 12                        |
| Largest watershed (stream order)         | 5                         |
| Number of 3rd order basins               | 21                        |
| km of stream in project area             | 770                       |
| Number of stream reaches in project area | 1278                      |
| Number of lakes in project area          | 49 (includes 13 wetlands) |

### *Verification of Sampling Program*

|                                                               |     |
|---------------------------------------------------------------|-----|
| Number of Stream reaches Sampled                              | 187 |
| Number of Primary Lake Surveys Completed                      | 0   |
| Number of Secondary Lake Surveys Completed                    | 0   |
| Number of sites where cutblock level fish-stream ID completed | 0   |

## Summary of Phase Costs

As per budget attached in Appendix VI in project plan.

## Progress and Problems Summary

None

## Ministry Representative Acceptance

|                                           |                      |
|-------------------------------------------|----------------------|
| Report Submitted by: FINS Consulting Ltd. | Date: March 19, 2002 |
| Phase completion approved:                | Date:                |
| Comments:                                 |                      |

**Reconnaissance (1:20,000) Fish and Fish Habitat  
Inventory**

**Upper Pinkut Creek Watershed  
2001/02**

- **Appendix V: QA Reports**

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

### FORM 1A

### DELIVERABLE CHECKLIST FOR PRE-FIELD – PAGE 1 OF 1

Check to ensure that a pre-field project planning report was received in the correct format with all the associated deliverable products.

| Pre-field Project Planning Report Deliverables | Hardcopy     | Digital                   | Acceptable Y/N | Comments                                                     |
|------------------------------------------------|--------------|---------------------------|----------------|--------------------------------------------------------------|
| 1. Cover page                                  | ✓            | ✓                         | Y              |                                                              |
| 2. Table of Contents                           | ✓            | ✓                         | Y              | Edit Date and Ministry Representative                        |
| 3. List of digital products                    | ✓            | ✓                         | Y              |                                                              |
| 4. Overview map                                | ✓            | N/A                       | N              | Requires scale, N, inset of prov. context etc.               |
| 5. Existing data review                        | Not Provided | Digital (web) FISS review | Y              | Very few historical features, all shown on final interp map. |
| • FISS map                                     |              |                           |                |                                                              |
| • list of references                           | ✓            | ✓                         | Y              |                                                              |
| • list of contacts                             | ✓            | ✓                         | Y              |                                                              |
| • new FISS information summary                 | N/A          | N/A                       | N/A            |                                                              |
| 6. ILP data*                                   | ✓            | ✓                         | Y              |                                                              |
| • ILP data sheets                              |              |                           |                |                                                              |
| • ILP map list                                 | ✓            | ✓                         | Y              |                                                              |
| • ILP maps or status report                    | ✓            | N/A                       | Y              |                                                              |
| 7. Interim maps*                               | ✓            | Optional                  | Y              |                                                              |
| • map list                                     |              |                           |                |                                                              |
| • maps                                         | ✓            |                           | Y              |                                                              |
| 8. FDIS database                               | N/A          | ✓                         | Y              |                                                              |
| • FDIS QA Report                               | ✓            | ✓                         | Y              |                                                              |
| 9. Sampling design sheets                      | ✓            | ✓                         | Y              |                                                              |
| 10. Aerial video record (optional)             | N/A          |                           |                |                                                              |
| 11. Project plan                               | ✓            | ✓                         | Y              |                                                              |
| 12. Pre-field Planning Report complete         | ✓            | ✓                         | Y              |                                                              |
| 13. Related items required to perform QA       | ✓            | N/A                       | Y              |                                                              |
| • Air photography                              |              |                           |                |                                                              |

**Approved:** Yes

**Comments:** All required deliverables submitted and meet QA standards, with the exception of the Project Overview Map.

**Recommended actions:** Provide Overview Map with TRIM grid, provincial context, scale, legend or distinct identifier/label of project outline boundary (as per final without sites).

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437 **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd. **Review date:** February, 2002

FORM 1B

### EXISTING DATA REVIEW – PAGE 1 OF 1

| Deliverable      | Deliverable check                                                                                                                                | Acceptable<br>Y/N | Comments |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| List of contacts | Is list of contacts provided in acceptable format?                                                                                               | Y                 |          |
|                  | Have all relevant contacts for the project area in question been pursued?                                                                        | Y                 |          |
|                  | <ul style="list-style-type: none"><li>If NO, report known important contacts not provided on list.</li></ul>                                     |                   |          |
| Bibliography     | Is bibliography provided in acceptable format?                                                                                                   | Y                 |          |
|                  | Does the bibliography adequately cover the information known to be available for the project area in question?                                   | Y                 |          |
|                  | <ul style="list-style-type: none"><li>If NO, report known available information that was not provided in bibliography.</li></ul>                 |                   |          |
| FISS information | Has FISS update information been provided for new sources of fisheries information that were not referenced in FISS as required in the contract: | N/A               |          |
|                  | <ul style="list-style-type: none"><li>FISS forms</li></ul>                                                                                       | N/A               |          |
|                  | <ul style="list-style-type: none"><li>clean NTS maps</li></ul>                                                                                   | N/A               |          |
|                  | <ul style="list-style-type: none"><li>a copy of each new source provided</li></ul>                                                               | N/A               |          |
|                  | <ul style="list-style-type: none"><li>a reference to each new source provided</li></ul>                                                          | N/A               |          |
|                  | <ul style="list-style-type: none"><li>If NO, report required information not provided.</li></ul>                                                 | N/A               |          |

**Approved:** Yes

**Comments:** Very thorough.

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

### FORM 1C

### INTERIM LOCATIONAL POINT MAPS AND DATA SHEETS – PAGE 1 OF 1

#### ILP Deliverables

|                |                                       | Y/N | Comments                                       |
|----------------|---------------------------------------|-----|------------------------------------------------|
| ILP map        | Provided as separate ILP maps         | N   | Sent to Sean Cheesman                          |
|                | Provided as part of interim maps      | Y   |                                                |
|                | Maps and ILPs legible                 | Y   |                                                |
| ILP data sheet | Complete/consistent with TRIM maps    | Y   |                                                |
|                | Tables match standard                 | Y   |                                                |
|                | UTMs provided for areas of congestion | N/A | Not required and NIDs present for all reaches. |

**Are ILP deliverables acceptable (Y/N)?** Yes

**Comments:**

#### Complete ILP Coverage

|    | TRIM sheet    | Basin reference | N streams with watershed codes | N streams with ILPs | N streams without ILP or watershed code | N inconsistencies between ILP map and ILP data sheet (and FDIS) |
|----|---------------|-----------------|--------------------------------|---------------------|-----------------------------------------|-----------------------------------------------------------------|
| 1  | 93K002        | N/A             | 2                              | 13                  | 0                                       | 0                                                               |
| 2  | 93K003        | N/A             | 6                              | 56                  | 0                                       | 0                                                               |
| 3  | 93K012        | N/A             | 0                              | 9                   | 0<br>12009 = 923<br>12010 = 924         | 2<br>(12009, 12010 – R1 not in FDIS) → in lake table            |
| 4  | 93K013        | N/A             | 14                             | 48                  | 0                                       | 0                                                               |
| 5  | 93K014        | N/A             | 13                             | 69                  | 0<br>14037 = 907                        | 1<br>(14037 – R1 not in FDIS) – lake table                      |
| 6  | 93K015        | N/A             | 0                              | 50                  | 0<br>= 909                              | 1<br>(15028 – R1 not in FDIS) – lake table                      |
| 7  | 93K022        | N/A             | 0                              | 11                  | 0                                       | 0                                                               |
| 8  | 93K023        | N/A             | 0                              | 85                  | 0                                       | 0                                                               |
| 9  | 93K024        | N/A             | 0                              | 17                  | 0                                       | 0                                                               |
| 10 | 93K041        | N/A             | 23                             | 52                  | 0                                       | 0                                                               |
| 11 | 93K042        | N/A             | 9                              | 29                  | 0                                       | 0                                                               |
| 12 | 93K051        | N/A             | 0                              | 10                  | 0                                       | 0                                                               |
|    | <b>Total:</b> |                 | <b>67</b>                      | <b>449</b>          | <b>0</b>                                | <b>4</b>                                                        |

**Approved:** Yes, coverage good on maps and ILP data sheets complete.

**Comments:** Check FDIS/ILP data and Maps for consistency on ILPs noted above (12009, 12010, 14037, 15028).

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437 **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd. **Review date:** February, 2002

### FORM 1D INTERIM MAP DATA – PAGE 1 OF 1

#### Interim Map Summary

| Map item                                           | Present | Legible | Comment |
|----------------------------------------------------|---------|---------|---------|
| Watershed codes                                    | ✓       | ✓       |         |
| Waterbody identifiers                              | ✓       | ✓       |         |
| ILPs                                               | ✓       | ✓       |         |
| Forest cover map streams (optional)                | ✓       | ✓       |         |
| Watershed boundaries                               | ✓       | ✓       |         |
| Reach boundaries                                   | ✓       | ✓       |         |
| Existing features with NIDs                        | ✓       | ✓       |         |
| New features with NIDs                             | ✓       | ✓       |         |
| Proposed reach sample sites (random/discretionary) | ✓       | ✓       |         |
| Proposed lake surveys (primary/secondary)          | ✓       | ✓       |         |

**Approved:** Yes **Recommended actions:** None

#### FISS Information

Randomly select and check ten features on the FISS maps to ensure correct information transfer.

|                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------------|---|---|---|---|---|---|---|---|---|----|
| FISS map #           |   |   |   |   |   |   |   |   |   |    |
| Interim map #        |   |   |   |   |   |   |   |   |   |    |
| FISS feature         |   |   |   |   |   |   |   |   |   |    |
| Transferred (Y or N) |   |   |   |   |   |   |   |   |   |    |
| Location correct     |   |   |   |   |   |   |   |   |   |    |
| Symbol correct       |   |   |   |   |   |   |   |   |   |    |
| NID present          |   |   |   |   |   |   |   |   |   |    |
| Total errors         |   |   |   |   |   |   |   |   |   |    |

#### QA Summary

Number of marks (10 features × 4 items): 40 Maximum number of errors acceptable (12%): 5  
Number of errors found: \_\_\_\_\_ Is the number of errors acceptable: ☐ Y ☐ N

**Approved:** Yes

**Comments:** A visual check of draft Phase VI maps was conducted to confirm transfer of existing FISS information – FISS data was attained digitally and no hardcopy maps were available at the time of QA. Very few historical FISS features are present in the study area.

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

**FORM 1E**

## COMBINED CHECK OF STREAM REACH DATA – PAGE 1 OF 3

List of reaches checked (FDIS /Interim maps/air photos)

|            | 1                                | 2      | 3                         | 4                              | 5      | 6                              | 7                         | 8                         | 9      | 10     |
|------------|----------------------------------|--------|---------------------------|--------------------------------|--------|--------------------------------|---------------------------|---------------------------|--------|--------|
| TRIM map # | 93K014                           | 93K014 | 93K015                    | 93K014                         | 93K014 | 93K015                         | 93K023                    | 93K023                    | 93K023 | 93K023 |
| ILP /WSC#  | -95200-<br>01900-<br>180-374000- | 14014  | -95200-<br>01900-<br>4090 | -95200-<br>01900-<br>4090-0920 | 14062  | -95200-<br>01900-<br>4090-3240 | -95200-<br>01900-<br>5520 | -95200-<br>01900-<br>6160 | 23021  | 23046  |
| NID        | 54                               | 109    | 121                       | 199                            | 306    | 379                            | 426                       | 480                       | 515    | 582    |
| Reach #    | 13                               | 1      | 10                        | 1                              | 1      | 3                              | 11                        | 16                        | 1      | 2      |

| For all reaches                                                                                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Comments                |
|------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|---|---|---|----|-------------------------|
| Watershed code or<br>ILP # and ILP map #                                                             |   |   |   |   |   |   |   |   |   |    |                         |
| ILP sheet, FDIS, ILP (or interim) map<br>all match                                                   |   |   |   |   |   |   |   |   |   |    |                         |
| NID # and NID map # or<br>UTM (optional, but no errors allowed;<br>do not include in marking scheme) |   |   |   |   | x |   |   |   |   |    | Check map edge boundary |
| TRIM map number                                                                                      |   |   |   |   |   |   |   |   |   |    |                         |
| Reach number                                                                                         |   |   |   |   |   |   |   |   |   |    |                         |
| Reach break location                                                                                 |   |   |   |   |   |   |   |   |   |    |                         |
| Reach map symbol                                                                                     |   |   |   |   |   |   |   |   |   |    |                         |
| Map status                                                                                           |   |   |   |   |   |   |   |   |   |    |                         |
| Order                                                                                                |   |   | ? |   |   |   |   |   |   |    |                         |
| Upstream/Downstream elevation                                                                        |   |   |   |   |   |   |   |   |   |    |                         |
| Length                                                                                               |   |   |   |   |   |   |   |   |   |    |                         |
| Pattern                                                                                              |   |   |   |   |   |   |   |   |   |    |                         |
| Confinement                                                                                          |   |   |   |   |   |   |   |   |   |    |                         |
| AN/BR                                                                                                |   |   |   |   |   |   |   |   |   |    |                         |
| Basin type                                                                                           |   |   |   |   |   |   |   |   |   |    |                         |
| <b>Total errors</b>                                                                                  | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0  |                         |
| <b>Shaded cell errors</b>                                                                            | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0  |                         |

**Comments:** Double check NID map for #5 – this may be an overlap rather than an error. Check order for upper reaches of Shovel – does it remain 5<sup>th</sup>? (difficult for me to determine without map 93K025)

yes!

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

## FORM 1E

## COMBINED CHECK OF STREAM REACH DATA – PAGE 2 OF 3

List of reaches checked (FDIS /Interim maps/air photos)

|            | 11                                       | 12                        | 13     | 14     | 15     | 16     | 17     | 18     | 19     | 20     |
|------------|------------------------------------------|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| TRIM map # | 93K023                                   | 93K022                    | 93K022 | 93K003 | 93K003 | 93K003 | 93K013 | 93K013 | 93K013 | 93K002 |
| ILP /WSC#  | -95200-<br>01900-<br>180-374000-<br>6580 | -95200-<br>01900-<br>6900 | 22006  | 3007   | 3023   | 3049   | 13018  | 13020  | 13028  | 2004   |
| NID        | 634                                      | 692                       | 7310   | 810    | 855    | 916    | 969    | 974    | 995    | 1019   |
| Reach #    | 2                                        | 24                        | 1      | 1      | 2      | 1      | 1      | 1      | 2      | 5      |

| For all reaches                                                                                      | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Comments |
|------------------------------------------------------------------------------------------------------|----|----|----|----|----|----|----|----|----|----|----------|
| Watershed code or<br>ILP # and ILP map #                                                             |    |    |    |    |    |    |    |    |    |    |          |
| ILP sheet, FDIS, ILP (or interim) map<br>all match                                                   |    |    |    |    |    |    |    |    |    |    |          |
| NID # and NID map # or<br>UTM (optional, but no errors allowed;<br>do not include in marking scheme) |    |    |    |    |    |    |    |    |    |    |          |
| TRIM map number                                                                                      |    |    |    |    |    |    |    |    |    |    |          |
| Reach number                                                                                         |    |    |    |    |    |    |    |    |    |    |          |
| Reach break location                                                                                 |    |    |    |    |    |    |    |    |    |    |          |
| Reach map symbol                                                                                     |    |    |    |    |    |    |    |    |    |    |          |
| Map status                                                                                           |    |    |    |    |    |    |    |    |    |    |          |
| Order                                                                                                |    |    |    |    |    |    |    |    |    |    |          |
| Upstream/Downstream elevation                                                                        |    |    |    |    |    |    |    | X  |    |    |          |
| Length                                                                                               |    |    |    |    |    |    |    |    |    |    |          |
| Pattern                                                                                              |    |    |    |    |    |    |    |    |    |    |          |
| Confinement                                                                                          |    |    |    |    |    |    |    |    |    |    |          |
| AN/BR                                                                                                |    |    |    |    |    |    |    |    |    |    |          |
| Basin type                                                                                           |    |    |    |    |    |    |    |    |    |    |          |
| Total errors                                                                                         | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 0  |          |
| Shaded cell errors                                                                                   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |          |

# 17 – Difficult to tell, but difference in elevation between u/s and d/s values seems off for this reach.

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

### FORM 1E

### COMBINED CHECK OF STREAM REACH DATA – PAGE 3 OF 3

List of reaches checked (FDIS /Interim maps/air photos)

|            | 21     | 22     | 23               | 24     | 25          | 26     | 27     | 28     | 29     | 30         |
|------------|--------|--------|------------------|--------|-------------|--------|--------|--------|--------|------------|
| TRIM map # | 93K002 | 93K012 | 93K042           | 93K042 | 93K042      | 93K041 | 93K051 | 93K051 | 93K012 | 93K051     |
| ILP /WSC#  | 2010   | 12007  | 480-927700-69200 | 42006  | 480-927700- | 41009  | 51001  | 51003  | 12005  | 480-927700 |
| NID        | 1031   | 1038   | 27               | 48     | 88          | 140    | 245    | 247    | 1024   | 16         |
| Reach #    | 1      | 2      | 4                | 1      | 5           | 1      | 1      | 1      | 1      | 16         |

| For all reaches                                                                                      | 21       | 22       | 23       | 24       | 25       | 26       | 27       | 28       | 29       | 30       | Comments               |
|------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|------------------------|
| Watershed code or<br>ILP # and ILP map #                                                             |          |          |          |          |          |          |          |          |          |          |                        |
| ILP sheet, FDIS, ILP (or interim) map<br>all match                                                   |          |          |          |          |          |          |          |          |          |          |                        |
| NID # and NID map # or<br>UTM (optional, but no errors allowed;<br>do not include in marking scheme) |          |          |          |          |          |          |          |          |          |          |                        |
| TRIM map number                                                                                      |          |          |          |          |          |          |          |          |          |          |                        |
| Reach number                                                                                         |          |          |          |          |          |          |          |          |          |          |                        |
| Reach break location                                                                                 |          |          |          |          |          |          |          |          |          |          |                        |
| Reach map symbol                                                                                     |          |          |          |          |          |          |          |          |          |          |                        |
| Map status                                                                                           |          |          |          |          |          |          |          |          |          |          |                        |
| Order                                                                                                |          |          |          |          |          |          |          |          |          |          |                        |
| Upstream/Downstream elevation                                                                        |          | X        |          |          |          |          |          |          |          |          | 53 m elevation change? |
| Length                                                                                               |          |          |          |          |          |          |          |          |          |          |                        |
| Pattern                                                                                              |          |          |          |          |          |          |          |          |          |          |                        |
| Confinement                                                                                          |          | X        |          |          |          |          | X        |          |          |          |                        |
| AN/BR                                                                                                |          |          |          |          |          |          |          |          |          |          |                        |
| Basin type                                                                                           |          |          |          |          |          |          |          |          |          |          |                        |
| <b>Total errors</b>                                                                                  | <b>0</b> | <b>2</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>1</b> | <b>0</b> | <b>0</b> | <b>0</b> |                        |
| <b>Shaded cell errors</b>                                                                            |          |          |          |          |          |          |          |          |          |          |                        |

### QA Summary

|                                                  | All reaches |     |
|--------------------------------------------------|-------------|-----|
| Number of reaches sampled                        | 30          |     |
| Number of marks (N reaches sampled × attributes) | N×15        | 450 |
| Maximum errors acceptable (12% of marks)         | 54          |     |
| Number of errors found                           | 5 (1%)      |     |

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory

**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002

**Submitted by:** FINS Consulting Ltd. Terrace, BC

**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

|                                               |   |
|-----------------------------------------------|---|
| Is the number of errors acceptable (Y/N)      | Y |
| Number of errors in zero-tolerance attributes | 1 |

**Approved:** Yes

**Comments:** Very good consistency with very few errors located during this review. Shaded cell error may be a result of mapsheet overlap – please double check.

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

### FORM 1F COMBINED CHECK OF PRE-FIELD LAKE INFORMATION – PAGE 1 OF 1

#### List of lakes checked (FDIS/Interim map/air photo)

|                  | 1              | 2       | 3      | 4       | 5       | 6       | 7       | 8      | 9       | 10     |
|------------------|----------------|---------|--------|---------|---------|---------|---------|--------|---------|--------|
| WBID/WS Code/ILP | 910 (Owl Lake) | 552FRAN | 903    | 392FRAN | 190FRAN | 144FRAN | 916FRAN | 918    | 862FRAN | 912    |
| Reach #          | 4              | 10      | 2      | 3       | 11      | 19      | 9       | 6      | 4       | 3      |
| NID              | 910            | 30      | 62     | 433     | 679     | 687     | 796     | 816    | 1008    | 1017   |
| Map #            | 93K015         | 93K015  | 93K014 | 93K013  | 93K023  | 93K022  | 93K003  | 93K003 | 93K002  | 93K002 |

| Attribute                                                               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Comments |
|-------------------------------------------------------------------------|---|---|---|---|---|---|---|---|---|----|----------|
| Official name                                                           |   |   |   |   |   |   |   |   |   |    |          |
| Alias or local name                                                     |   |   |   |   |   |   |   |   |   |    |          |
| WSC and waterbody identifier "or"                                       |   |   |   |   |   |   |   |   |   |    |          |
| ILP number and ILP map number                                           |   |   |   |   |   |   |   |   |   |    |          |
| NID # and NID map #                                                     |   |   |   |   |   |   |   |   |   |    |          |
| UTM (optional, but no errors allowed; do not include in marking scheme) |   |   |   |   |   |   |   |   |   |    |          |
| Reach number                                                            |   |   |   |   |   |   |   |   |   |    |          |
| Basin type                                                              |   |   |   |   |   |   |   |   |   |    |          |
| Group                                                                   | X | X |   | X | X | X | X | X | X | X  |          |
| Class (P/S)                                                             |   |   |   |   |   |   |   |   |   |    |          |
| Genesis                                                                 |   |   |   |   |   |   |   |   |   |    |          |
| Surface area                                                            |   |   |   |   |   |   |   |   |   |    |          |
| Magnitude                                                               |   |   |   |   |   |   |   |   |   |    |          |
| Biogeoclimatic zone                                                     |   |   |   |   |   |   |   |   |   |    |          |
| Wetland                                                                 |   |   |   |   |   |   |   |   |   |    |          |
| Total errors for each lake                                              | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1  |          |

#### QA Summary (Lakes)

|                                                |               |
|------------------------------------------------|---------------|
| Number of lakes sampled                        | 10            |
| Number of marks (N lakes sampled x attributes) | N×13      130 |
| Maximum errors acceptable (12% of marks)       | 16            |
| Number of errors found                         | 9             |
| Is the number of errors acceptable (Y/N)       | Yes           |
| Number of errors in zero-tolerance attributes  | 0             |

**Approved:**      Yes

**Comments:** My interpretation of Lake Group designation from 2:21 is that lakes in the same 'group' must allow fish passage between them (ie: all lakes in the connected group have the same ID). Or, it could be interpreted that the 'group' is identified by the first letter with each lake in the group in sequence (ie: AA, AB, AC etc). However, either method requires that *no two disconnected lakes should have the same lake group designation*. Several lakes in the table do not appear to be in the same 'group' but share identifiers AA, AB or AC etc. This can be easily corrected by changing the first letter designation in each separate group so that you have groups A\_, B\_, C\_, etc, or by giving lakes within the same group the same identifier (all lakes in the group are AA). Clear eh?

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

### FORM 1H      STREAM SAMPLING DESIGN – PAGE 1 OF 1

|                                                                                                          | Acceptable<br>(Y/N) | Comment                                                                     |
|----------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------|
| Is the inventory watershed based (i.e., entire watershed)?                                               | Y                   |                                                                             |
| Are <b>random</b> reaches selected for sampling based on the FDIS statistical sampling design?           | Y                   |                                                                             |
| For low gradient or small/medium sized streams, is the sample size of reaches $\geq 8$ ?                 | Y                   |                                                                             |
| For higher gradient (20–30%) or large sized streams, is the minimum sample size 2 and maximum 25?        | Y                   |                                                                             |
| Are <b>discretionary</b> reach samples included?                                                         | Y                   |                                                                             |
| • above or below barriers                                                                                | Y                   |                                                                             |
| • adjacent to identified cutblocks                                                                       | Y                   |                                                                             |
| • major inlets and outlets to secondary lakes                                                            | Y                   |                                                                             |
| • of inlets and outlets to primary lakes                                                                 | Y                   |                                                                             |
| • to achieve connectivity within sub-basins for fish distribution and identification of upstream limits. | Y                   |                                                                             |
| Are proposed reach sample sites shown on TRIM maps with solid and dashed green lines?                    | Y                   | Purple and pink.                                                            |
| Are planning tables complete with gear and voucher requirements indicated?                               | Y                   |                                                                             |
| Does the distribution of sample sites adequately represent all basin types and basin connectivities.     | Y                   |                                                                             |
| Is the overall sampling rate (sample number vs total number of reaches) acceptable?                      | Y                   | Approximately 15% - increased FDIS to more appropriate sampling rate –nice. |
| <b>Does the sample design adequately cover the requirements for a reconnaissance inventory?</b>          | Y                   |                                                                             |

**Note:** Any error identified in a shaded cell constitutes a failure.

**Approved:**      Yes

**Comments:** The sampling design is comprehensive and well considered, reflecting FINS extensive experience in the study area and common sense approach to interpretation of sampling design requirements.

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437 **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd. **Review date:** February, 2002

FORM 11

### LAKES SAMPLING DESIGN – PAGE 1 OF 1

|                                                                                                                                  | Acceptable<br>(Y/N) | Comment                      |
|----------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------|
| Is the lakes planning table complete and accurate (including classification of lakes as primary, secondary or not sampled)?      | Y                   |                              |
| Will all identified primary lakes be sampled?                                                                                    | N                   | No lakes sampling necessary. |
| Is there at least one lake from each lake group identified that will be sampled?                                                 | N                   |                              |
| Will at least 20% of all identified secondary lakes be sampled?                                                                  | N                   |                              |
| Is justification provided for those lakes that will not be sampled?                                                              | Y                   |                              |
| Are lakes proposed for sampling outlined on TRIM maps with solid and dashed green lines?                                         | N/A                 |                              |
| Are planning tables complete with gear and voucher requirements indicated?                                                       | N/A                 |                              |
| Does the sample design adequately cover the requirements for a reconnaissance inventory? If no, the sampling design is rejected. | YES                 |                              |

**Approved:** Yes

**Comments:** Sampling plan provides justification.

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** February, 2002

### FORM 1J PROJECT PLAN – PAGE 1 OF 1

|                                                                                                                                                 | Acceptable<br>(Y/N) | Comment       |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|
| Does the project plan cover field inventory procedures?                                                                                         | Y                   |               |
| Does the project plan cover data compilation?                                                                                                   | Y                   |               |
| Does the plan cover reporting requirements?                                                                                                     | Y                   |               |
| Does the plan include proposed staff for field phase?                                                                                           | Y                   |               |
| Has existing data been considered and used in the project plan?                                                                                 | Y                   |               |
| Have sampling intentions of relevant WRP projects or other inventory project requirements been incorporated into the plan to avoid duplication? | Y                   |               |
| Has the plan integrated the sampling of lake and stream habitats, in particular, with any aerial over flights and sampling of lake tributaries? | N/A                 |               |
| Have requirements for effective sampling methods in relation to stream reach and lake types been addressed?                                     | Y                   |               |
| Have requirements for biological and water samples been properly considered?                                                                    | Y                   |               |
| • water sampling particularly in primary lakes                                                                                                  | N/A                 |               |
| • fish voucher specimens                                                                                                                        | Y                   |               |
| • other samples.                                                                                                                                | Y                   | Cutthroat DNA |
| Does and should the plan incorporate any special fish species level inventory needs on a provincial or regional scale?                          | Y                   | As above.     |
| Are budget and schedule adequate to complete the project as planned?                                                                            | Y                   |               |
| <b>If the answer to any of the above is no, is this going to have an impact on the inventory project? If so, the project plan is rejected.</b>  | No                  |               |

**Approved:** Yes

**Comments:** As per the sampling design, the project plan is comprehensive and well considered, reflecting FINS extensive experience in the study area and common sense interpretation of pre-field planning requirements.

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

Project name: West Fraser / BFP 1:20 K Fish and Fish Habitat Inventories, 2001

FRBC project number:   MELP project number:

Contractor: FINS Consulting Ltd.   Field audit by: Acer Resource Consulting Ltd.

Site identifier: XXXXX

Field audit date: October 23, 2001

**FORM 2A**

## FIELD AUDIT: CREW INFORMATION, PERMITS AND SAFETY

### Crew information

| Crew members' names | Listed in contract or plan | Area of expertise (bio, geo, other) | First aid |                | Electrofishing |             |
|---------------------|----------------------------|-------------------------------------|-----------|----------------|----------------|-------------|
|                     |                            |                                     | Level 1   | Transportation | Crew member    | Crew leader |
| Mac Jedrzejczyk     | Y                          | Bio                                 | Y         | Y              |                | Y           |
| Sean Redden         | Y                          | Bio                                 | Y         | Y              |                | Y           |
|                     |                            |                                     |           |                |                |             |
|                     |                            |                                     |           |                |                |             |

**QA comments about crew and/or certifications:**

### Permits and safety plan

| Group       | Item                        | Acceptable |   | Specify problem |
|-------------|-----------------------------|------------|---|-----------------|
|             |                             | Y          | N |                 |
| Permits     | MELP fish collection permit | Y          |   |                 |
|             | DFO fish collection permit  | Y          |   |                 |
|             |                             |            |   |                 |
| Safety plan | Safety plan in place        | Y          |   |                 |
|             | Is safety plan followed     | Y          |   |                 |

**QA comments about permits and safety:** All field operations conducted in a safe and effective manner.

**Note:** If any obvious WCB regulations are contravened, the QA team must immediately inform the responsible contract manager and the ministry representative.

Field Audit Confirmation:

Field audit leader: Sam Buchanan

For field crew: MJ/SR

-----

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

Project name: West Fraser / BFP 1:20 K Fish and Fish Habitat Inventories, 2001

FRBC project number: MELP project number:

Contractor: FINS Consulting Ltd. Field audit by: Acer Resource Consulting Ltd.

Site identifier: XXXXX

Field audit date: October 23, 2001

FORM 2B

## FIELD AUDIT FOR STREAM SURVEYS: SITE CARD PROCEDURES CHECK – PAGE 1 OF 2

| Materials present in field | Y | N | Notes |
|----------------------------|---|---|-------|
| Site cards                 | Y |   |       |
| Field reference materials  | Y |   |       |
| Field maps                 | Y |   |       |
|                            |   |   |       |
|                            |   |   |       |

| List equipment used       | Calibrated (Y/N) | Proper use (Y/N) | Notes |
|---------------------------|------------------|------------------|-------|
| Smith Root Model 12 B POW | N/A              | Y                |       |
| Oakton PH                 | Y                | Y                |       |
| Oakton Conductivity       | Y                | Y                |       |
| Alcohol Thermometer       | Y                | Y                |       |
| Abney Level               | Y                | Y                |       |
| Tape Measure              | N/A              | Y                |       |
|                           |                  |                  |       |
|                           |                  |                  |       |
|                           |                  |                  |       |

| Group          | Item                     | Acceptable |      | Notes |
|----------------|--------------------------|------------|------|-------|
|                |                          | Tech.      | Data |       |
| Site selection | Representative site      | Y          | Y    |       |
|                | Conditions appropriate   | Y          | Y    |       |
| Reference      | Stream name (Gaz)        | N/A        | Y    |       |
|                | Alias                    | N/A        | Y    |       |
|                | WSD code or              | Y          | Y    |       |
|                | ILP # and ILP map #      | Y          | Y    |       |
|                | Map NID and NID map #    | Y          | Y    |       |
|                | Field UTM (and method)   | Y          | Y    |       |
|                | Reach number             | Y          | Y    |       |
|                | Site number              | Y          | Y    |       |
|                | Site length (and method) | Y          | Y    |       |
|                | Access                   | Y          | Y    |       |
|                | Date, time               | Y          | Y    |       |
|                | Agency                   | Y          | Y    |       |
|                | Crew                     | Y          | Y    |       |
|                | Fish form                | Y          | Y    |       |
| Channel        | Equipment                | Y          | Y    |       |
|                | Channel widths           | Y          | Y    |       |
|                | Wetted widths            | Y          | Y    |       |

Field Audit Confirmation:

Field audit leader: Sam Buchanan

For field crew: MJ/SR

| Group              | Item                      | Acceptable |      | Notes |
|--------------------|---------------------------|------------|------|-------|
|                    |                           | Tech.      | Data |       |
| Channel<br>(cont.) | Residual pool depth       | Y          | Y    |       |
|                    | Bankful depth             | Y          | Y    |       |
|                    | Gradient                  | Y          | Y    |       |
|                    | Stage                     | Y          | Y    |       |
|                    | NVC; Dry/Int; DW; Tribs   | Y          | Y    |       |
| Cover              | Total cover               | Y          | Y    |       |
|                    | Cover elements            | Y          | Y    |       |
|                    | • amount                  | Y          | Y    |       |
|                    | • location                | Y          | Y    |       |
|                    | Crown closure             | Y          | Y    |       |
|                    | Large woody debris        | Y          | Y    |       |
|                    | • function                | Y          | Y    |       |
|                    | • distribution            | Y          | Y    |       |
|                    | Instream vegetation       | Y          | Y    |       |
|                    | Left and right bank shape | Y          | Y    |       |
|                    | Texture                   | Y          | Y    |       |
|                    | Riparian vegetation       | Y          | Y    |       |
|                    | Stage                     | Y          | Y    |       |
| Morphology         | Flood signs               | Y          | Y    |       |
|                    | Bed material              | Y          | Y    |       |
|                    | D95                       | Y          | Y    |       |
|                    | D                         | Y          | Y    |       |
|                    | Morphology                | Y          | Y    |       |
|                    | Disturbance indicators    | Y          | Y    |       |
|                    | Channel pattern           | Y          | Y    |       |

| Group                   | Item              | Acceptable |      | Notes |
|-------------------------|-------------------|------------|------|-------|
|                         |                   | Tech.      | Data |       |
| Morphology<br>(cont.)   | Islands           | Y          | Y    |       |
|                         | Bars              | Y          | Y    |       |
|                         | Coupling          | Y          | Y    |       |
|                         | Confinement       | Y          | Y    |       |
| Water                   | Equipment         | Y          | Y    |       |
|                         | Temperature       | Y          | Y    |       |
|                         | pH                | Y          | Y    |       |
|                         | Conductivity      | Y          | Y    |       |
|                         | Turbidity         | Y          | Y    |       |
| Features                | NID map #, NID    | Y          | Y    |       |
|                         | Type              | Y          | Y    |       |
|                         | Height, length    | Y          | Y    |       |
|                         | Photo             | Y          | Y    |       |
| Habitat<br>quality      | Keywords          | Y          | Y    |       |
|                         | Relevant comments | Y          | Y    |       |
|                         | FSZ               | Y          | Y    |       |
| Photodocu-<br>mentation | Roll #            | Y          | Y    |       |
|                         | Photo #           | Y          | Y    |       |
|                         | Focal length      | Y          | Y    |       |
|                         | Direction         | Y          | Y    |       |
|                         | NID #, NID map #  | Y          | Y    |       |
|                         | UTM and method    | Y          | Y    |       |
| Wildlife                | Group             | Y          | Y    |       |
|                         | Relevant comment  | Y          | Y    |       |

Field Audit Confirmation:

Field audit leader: Sam Buchanan

For field crew: MJ/SR

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

Project name: **FISH INVENTORY QUALITY ASSURANCE CHECK FORM**

Project name: West Fraser / BFP 1:20 K Fish and Fish Habitat Inventories, 2001

FRBC project number: MELP project number:

Contractor: FINS Consulting Ltd. Field audit by: Acer Resource Consulting Ltd.

Site identifier: XXXXXX

Field audit date: October 23, 2001

FORM 2D

## FIELD AUDIT: FISH COLLECTION CHECK – PAGE 1 OF 3

| Materials present in field                                     | Y   | N | Notes |
|----------------------------------------------------------------|-----|---|-------|
| Fish collection forms                                          | Y   |   |       |
| Individual fish data forms                                     | Y   |   |       |
| Field data reference                                           | Y   |   |       |
| Field key to freshwater fishes of BC                           | Y   |   |       |
| Approved electroshocker                                        | Y   |   |       |
| Ancillary fish capture equipment (buckets, dip nets, stop net) | Y   |   |       |
| Measuring board/ruler                                          | Y   |   |       |
| Weigh scale                                                    | N/A |   |       |
| Fish samples (e.g., scale envelopes, tissue vials)             | N/A |   |       |
| Voucher containers, preservative, labels                       | Y   |   |       |

| Sampling technique        |                                          | Acceptable |   | Notes |
|---------------------------|------------------------------------------|------------|---|-------|
|                           |                                          | Y          | N |       |
| Lakes                     | Number and duration of gill nets set     | N/A        |   |       |
|                           | Number and duration of minnow traps set  | N/A        |   |       |
|                           | Other                                    | N/A        |   |       |
| Streams                   | Site selection and length                | Y          |   |       |
|                           | Number and duration of minnow traps set  | N/A        |   |       |
|                           | Other                                    | N/A        |   |       |
| Electrofisher function    | Tilt/safety switch                       | Y          |   |       |
|                           | Main power switch                        | Y          |   |       |
|                           | Anode deadman's switch                   | Y          |   |       |
|                           | Quick release harness                    | Y          |   |       |
|                           | Anode clean                              | Y          |   |       |
| Electrofishing techniques | Safe operation and hand signals          | Y          |   |       |
|                           | Site coverage – all habitat types fished | Y          |   |       |
|                           | Effective fish capture                   | Y          |   |       |
|                           | Impact on fish                           | N/A        |   | NFP   |
| Fish handling             | Impacts on fish                          | N/A        |   |       |

Field Audit Confirmation:

Field audit leader: Sam Buchanan

For field crew: MJ/SR

| Fish identification and fish samples |                                  | Acceptable |   | Notes |
|--------------------------------------|----------------------------------|------------|---|-------|
|                                      |                                  | Y          | N |       |
| Fish identification                  | Correct identification           | N/A        |   |       |
|                                      | Correct use of fish key          | N/A        |   |       |
|                                      | Procedure for unidentified fish  | N/A        |   |       |
|                                      | Knowledge of voucher sample plan | Y          |   |       |
|                                      | Voucher collection/labelling     | N/A        |   |       |
| Fish samples                         | Age sampling, labelling          | N/A        |   |       |
|                                      | Genetic sampling/labelling       | N/A        |   |       |
|                                      | Other                            | N/A        |   |       |

## Fish Collection Form

| Group  | Item                  | Acceptable |      | Notes |
|--------|-----------------------|------------|------|-------|
|        |                       | Tech.      | Data |       |
| Header | Name                  | Y          | Y    |       |
|        | Stream/Lake/Wetland   | Y          | Y    |       |
|        | Watershed code or ILP | Y          | Y    |       |
|        | Waterbody ID          | Y          | Y    |       |
|        | ILP map #             | Y          | Y    |       |
|        | Project ID            | Y          | Y    |       |
|        | Reach #               | Y          | Y    |       |
|        | MELP fish permit #    | Y          | Y    |       |
|        | Date start, end       | Y          | Y    |       |
|        | Agency, crew          | Y          | Y    |       |
|        | Resample              | Y          | Y    |       |

|                              |                          | Acceptable |      |    |
|------------------------------|--------------------------|------------|------|----|
|                              |                          | Tech.      | Data |    |
| Site/Method                  | Site #                   | Y          | Y    |    |
|                              | NID map #, NID #         | Y          | Y    |    |
|                              | Site UTM                 | Y          | Y    |    |
|                              | Method, method no.       | Y          | Y    |    |
|                              | Temp, cond., turbidity   | Y          | Y    |    |
| Fish summary                 | Site #                   | Y          | Y    |    |
|                              | Method, method no.       | Y          | Y    |    |
|                              | Haul/Pass (H/P)          | Y          | Y    |    |
|                              | Species, stage, total #  | N/A        | N/A  | 1. |
|                              | Min. length              | N/A        | N/A  |    |
|                              | Fish activity            | N/A        | N/A  |    |
| Gear specifications          | Site #                   | N/A        | N/A  |    |
|                              | Method, method no.       | N/A        | N/A  |    |
|                              | Haul                     | N/A        | N/A  |    |
|                              | Date, time in            | N/A        | N/A  |    |
|                              | Date, time out           | N/A        | N/A  |    |
|                              | Net type, length & depth | N/A        | N/A  |    |
|                              | Mesh size                | N/A        | N/A  |    |
|                              | Set, habitat             | N/A        | N/A  |    |
| Electrofisher specifications | Site #                   | Y          | Y    |    |
|                              | Method, method no.       | Y          | Y    |    |
|                              | Pass                     | Y          | Y    |    |
|                              | Time in, time out        | Y          | Y    |    |
|                              | EF sec.                  | Y          | Y    |    |
|                              | Length, width            | Y          | Y    |    |
|                              | Enclosure                | Y          | Y    |    |
|                              | Voltage, freq., pulse    | Y          | Y    |    |
|                              | Make, model              | Y          | Y    |    |
| Individual fish data         | Fish collection form #   | N/A        | N/A  |    |
|                              | Site #                   | N/A        | N/A  |    |

Field Audit Confirmation:

Field audit leader: Sam Buchanan

For field crew: MJ/SR

| Group                        | Item                   | Acceptable |      | Notes |
|------------------------------|------------------------|------------|------|-------|
|                              |                        | Tech.      | Data |       |
| Individual fish data (cont.) | Method, method no.     | N/A        | N/A  |       |
|                              | Haul/Pass              | N/A        | N/A  |       |
|                              | Species                | N/A        | N/A  |       |
|                              | Length                 | N/A        | N/A  |       |
|                              | Weight                 | N/A        | N/A  |       |
|                              | Sex                    | N/A        | N/A  |       |
|                              | Maturity               | N/A        | N/A  |       |
|                              | Age structure          | N/A        | N/A  |       |
|                              | Age sample #           | N/A        | N/A  |       |
|                              | Age                    | N/A        | N/A  |       |
|                              | Voucher                | N/A        | N/A  |       |
|                              | Genetic structure      | N/A        | N/A  |       |
|                              | Genetic sample #       | N/A        | N/A  |       |
|                              | Photos                 | N/A        | N/A  |       |
|                              | Number of fish sampled | N/A        | N/A  |       |

**Notes:**

1. No fish captured, no fish present – fields for fish capture and handling are therefore N/A. Electrofishing technique used was effective and safe. I have no QA concerns with regard to fish sampling techniques. This field crew has extensive inventory experience and I have previously witnessed acceptable fish capture and handling techniques by both Sean and Mac.

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory

**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002

**Submitted by:** FINS Consulting Ltd. Terrace, BC

**QA review by:** Acer Resource Consulting Ltd.      **Review date:** March 19, 2002

**FORM 3A**

### DATA COMPILATION AND REPORTING DELIVERABLES FOR QA – PAGE 1 OF 1

|                                              | Deliverable                     | Hardcopy                 | Digital                  | Comments                   |
|----------------------------------------------|---------------------------------|--------------------------|--------------------------|----------------------------|
| Watershed reporting                          | Watershed report                | <input type="checkbox"/> | <input type="checkbox"/> |                            |
|                                              | Appendices                      | <input type="checkbox"/> |                          |                            |
|                                              | I. FDIS summary and photographs | <input type="checkbox"/> |                          |                            |
|                                              | II. Maps                        | <input type="checkbox"/> |                          |                            |
|                                              | Attachments                     |                          |                          |                            |
|                                              | I. Pre-field planning document  | N/A                      | N/A                      | To be submitted with final |
|                                              | II. Field notes and forms       | <input type="checkbox"/> | N/A                      |                            |
|                                              | III. Fish ageing structures     | N/A                      | N/A                      |                            |
|                                              | IV. Fish samples and vouchers   | <input type="checkbox"/> | N/A                      |                            |
|                                              | V. Photodocumentation           | <input type="checkbox"/> | <input type="checkbox"/> |                            |
|                                              | VI. Digital data                |                          |                          |                            |
|                                              | VII. FISS update data           | <input type="checkbox"/> | N/A                      |                            |
|                                              | VIII. Aerial photography        | N/A                      | N/A                      |                            |
| Individual lake reporting<br>(for each lake) | Lake report                     | N/A                      | N/A                      |                            |
|                                              | Appendices                      |                          |                          |                            |
|                                              | I. Lake survey form             |                          |                          |                            |
|                                              | II. Water chemistry data        |                          |                          |                            |
|                                              | III. Fish collection forms      |                          |                          |                            |
|                                              | IV. Tributary summary           |                          |                          |                            |
|                                              | V. Photographs                  |                          |                          |                            |
|                                              | VI. Bathymetric map             |                          |                          |                            |
|                                              | Attachments                     |                          |                          |                            |
|                                              | I. Photodocumentation           |                          |                          |                            |
|                                              | II. Digital data                |                          |                          |                            |
|                                              | III. FISS update data           |                          |                          |                            |
|                                              | IV. Phase completion reports    |                          |                          |                            |
|                                              | V. Field notes and forms        |                          |                          |                            |
|                                              | VI. Aerial photography          |                          |                          |                            |
|                                              | VII. Fish ageing structures     |                          |                          |                            |
|                                              | VIII. Fish samples and vouchers |                          |                          |                            |

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** March 19, 2002

### FORM 3B      DIGITAL DATA CHECKING – PAGE 1 OF 1

**For each FDIS file provided:**

**FDIS filename:**

|                           | Acceptable |   | Comments                                  |
|---------------------------|------------|---|-------------------------------------------|
|                           | Y          | N |                                           |
| Conversions done:         |            |   |                                           |
| • ILP to WSC              | X          |   | Awaiting codes from Victoria              |
| • NID-UTM                 | X          |   | Field UTM's entered for all sites         |
| • Update bathymetry       |            |   |                                           |
| FDIS QA report attached   | X          |   | Viewed at FINS office, acceptable errors. |
| • Acceptable error report | X          |   |                                           |

**For each FDIS file and digital map file set:**

**ARCVIEW fish QA tool**

|                                                    | Filename | Acceptable |   | Comments                                                                                             |
|----------------------------------------------------|----------|------------|---|------------------------------------------------------------------------------------------------------|
|                                                    |          | Y          | N |                                                                                                      |
| Digital map files                                  |          |            |   |                                                                                                      |
| • Metadata table                                   |          | X          |   | To be included in final deliverables                                                                 |
| • Map attributes table                             |          | X          |   | To be included in final deliverables                                                                 |
| FDIS data check                                    |          |            |   | MELP/Internal QA process                                                                             |
| • Sequential reach numbering:                      |          |            |   |                                                                                                      |
| • Point locations on TRIM streams:                 |          |            |   |                                                                                                      |
| Copy of ARCVIEW fish QA tool error report attached |          | N/A        |   | Maps created in Microstation, approved by Matt Jessop as format for submission (email confirmation). |
| • Acceptable error report                          |          | N/A        |   |                                                                                                      |

**Note:** The map attributes table, introduced in 1999, replaces the point table and the attribute table from 1998 standards.

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory

**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002

**Submitted by:** FINS Consulting Ltd. Terrace, BC

**QA review by:** Acer Resource Consulting Ltd.      **Review date:** March 19, 2002

**CONSISTENCY CHECK: STREAM CARDS, FDIS, PROJECT, INTERPRETIVE MAPS –**  
**PAGE 1 OF 4**

|             | 1      | 2      | 3      | 4           | 5           | 6           | 7      | 8           | 9      | 10     |
|-------------|--------|--------|--------|-------------|-------------|-------------|--------|-------------|--------|--------|
| Site #      | 5      | 28     | 44     | 52          | 54          | 63          | 72     | 82          | 92     | 99     |
| Mapsheets # | 93K015 | 93K014 | 93K014 | 93K023      | 93K013      | 93K013      | 93K023 | 93K013      | 93K023 | 93K013 |
| ILP/WSC     | 15005  | 14056  | 14065  | -01900-5520 | -01900-2580 | -01900-6160 | 23014  | -01900-6580 | 23074  | 13004  |
| NID         | 3005   | 3028   | 3044   | 3052        | 3054        | 3063        | 3072   | 3082        | 3092   | 3099   |

[illegible]

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

Project name: Babine Forest Products Fish and Fish Habitat Inventory  
 FRBC project number: 10437 MELP project number: BFP-C016-001-2002  
 Submitted by: FINS Consulting Ltd. Terrace, BC  
 QA review by: Acer Resource Consulting Ltd. Review date: March 19, 2002

FORM 3C

CONTINUED – PAGE 2 OF 4

| Card section        | Attribute                     | Where to check | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Error locations |
|---------------------|-------------------------------|----------------|---|---|---|---|---|---|---|---|---|----|-----------------|
| Water               | EMS #                         | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Temperature, pH               | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Water chemistry requisition # | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Conductivity, turbidity       | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Channel morphology  | Flood signs                   | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Bed material                  | 1, 2, 3        |   |   |   |   |   |   |   |   |   |    |                 |
|                     | D95, D                        | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Morphology                    | 1, 2, 3        |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Disturbance indicators        | 1, 2, 3        |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Pattern                       | 2, 3           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Islands, bars, coupling       | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Confinement                   | 2, 3           |   |   |   |   |   |   |   |   |   |    |                 |
| Features            | NID map # and NID #           | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Type, height/length           | 1, 2, 3, 4     |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Photo, comments               | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | UTM                           | 1, 2           |   |   |   |   | X |   |   |   |   |    |                 |
| Habitat quality     | General comments              | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Fisheries sensitive zones     | 1, 2, 3, 4     |   |   |   |   |   |   |   |   |   |    |                 |
| Photo-documentation | Roll #                        | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Frame #                       | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Focal length                  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Direction                     | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Comments                      | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Wildlife            | Group                         | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                     | Observations                  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Comments            | General comments              | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Total errors:       |                               |                | 1 | 1 | 1 | 1 | 3 | 2 | 1 | 2 | 2 | 1  | 15              |

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437 **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**A review by:** Acer Resource Consulting Ltd. **Review date:** March 19, 2002

**CONSISTENCY CHECK: STREAM CARDS, FDIS, PROJECT, INTERPRETIVE MAPS –**  
**PAGE 3 OF 4**

|             | 11     | 12     | 13         | 14        | 15         | 16         | 17           | 18     | 19     | 20           |
|-------------|--------|--------|------------|-----------|------------|------------|--------------|--------|--------|--------------|
| Site #      | 109    | 119    | 135        | 146       | 150        | 155        | 164          | 178    | 186    | 189          |
| Mapsheets # | 93K003 | 93K003 | 93K013     | 93K002    | 93K002     | 93K051     | 93K042       | 93K041 | 93K041 | 93K041       |
| ILP/WSC#    | 3016   | 6034   | -3580-5390 | 3580-5640 | -3580-6060 | 480-927700 | 927700-78100 | 41027  |        | 927700-91300 |
| NID         | 3109   | 3119   | 3135       | 3146      | 3150       | 3155       | 3164         | 3178   | 3186   | 3189         |

[illegible]

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** March 19, 2002

**FORM 3c**

**CONTINUED – PAGE 4 OF 4**

| Card section         | Attribute                     | Where to check | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 20 | Error locations |
|----------------------|-------------------------------|----------------|---|---|---|---|---|---|---|---|---|----|-----------------|
| Water                | EMS #                         | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Temperature, pH               | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Water chemistry requisition # | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Conductivity, turbidity       | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Channel morphology   | Flood signs                   | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Bed material                  | 1, 2, 3        |   |   |   |   |   |   |   |   |   |    |                 |
|                      | D95, D                        | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Morphology                    | 1, 2, 3        |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Disturbance indicators        | 1, 2, 3        |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Pattern                       | 2, 3           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Islands, bars, coupling       | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Confinement                   | 2, 3           |   |   |   |   |   |   |   |   |   |    |                 |
| Features             | NID map # and NID #           | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Type, height/length           | 1, 2, 3, 4     |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Photo, comments               | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | UTM                           | 1, 2           |   |   |   | X | X |   |   |   |   |    | Not in FDIS     |
| Habitat quality      | General comments              | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Fisheries sensitive zones     | 1, 2, 3, 4     |   |   |   |   |   |   |   |   |   |    |                 |
| Photo-documentation  | Roll #                        | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Frame #                       | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Focal length                  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Direction                     | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Comments                      | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Wildlife             | Group                         | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                      | Observations                  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Comments             | General comments              | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| <b>Total errors:</b> |                               |                | 1 | 1 | 2 | 3 | 3 | 3 | 1 | 1 | 2 | 1  | 18+15=33        |

## Summary of stream site information check:

Number of marks (# cards \* 52): 1040      Maximum number of errors acceptable (5%): 52

Number of errors found: 33      Is the number of errors acceptable: Yes

## Comments:

On Interp. maps, the SDS and RDS are both turned on so that data appears twice for each site, also the site number is not turned on next to the site symbol, as per standards. This accounts for the site number errors.

Site 28 – UTM's don't match between site cards and FDIS

Site 146 – reach breaks on maps do not match those on cards (Sites 146, 147) The info. on the data symbol for site 147 on maps belongs to site 146.

Site 63 – has two WSCs on maps. Sites 155, 186 – have no WSCs on maps.

Site 82 – card gradients say 4% -maps say 6%.

Sites 54, 55 – No RSS on Interpretive map (is site 54 on an unmapped channel?) Need to clarify.

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437 **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**A review by:** Acer Resource Consulting Ltd., **Review date:** March 19, 2002

**CONSISTENCY CHECK: FISH COLLECTION FORM, FDIS, PROJECT MAP,  
INTERPRETIVE MAP, LAKE OUTLINE MAP – PAGE 1 OF 4**

|                                 | 1      | 2                   | 3                    | 4                    | 5              | 6      | 7      | 8                    | 9      | 10                   |
|---------------------------------|--------|---------------------|----------------------|----------------------|----------------|--------|--------|----------------------|--------|----------------------|
| Site #                          | 5      | 12                  | 23                   | 41                   | 63             | 73     | 91     | 96                   | 115    | 133                  |
| Mapsheet #.                     | 93K015 | 93K014              | 93K014               | 93K015               | 93K013         | 93K023 | 93K023 | 93K003               | 93K003 | 93K003               |
| ILP/WSC<br>180-374000-<br>95200 | 15005  | 01900-<br>2720-3880 | -01900-<br>4090-0920 | -01900-<br>4090-3240 | 01900-<br>6160 | 23027  | 22001  | -01900-<br>3580-4040 | 3020   | -01900-<br>3580-5390 |
| NID #                           | 3005   | 3012                | 3023                 | 3041                 | 3063           | 3073   | 3091   | 3096                 | 3115   | 3133                 |

[illegible]

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437 **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd. **Review date:** March 19, 2002

FORM 3E

CONTINUED – PAGE 2 OF 4

| Group                         | Item                  | Where to check | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Error locations |
|-------------------------------|-----------------------|----------------|---|---|---|---|---|---|---|---|---|----|-----------------|
| Gear specifications           | Method, method no.    | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Haul                  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Date, time in/out     | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Net type, lgth, dpth  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Mesh size             | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Set, habitat          | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Electrofischer specifications | Method, method no.    | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Pass                  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Time in, time out     | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | EF sec.               | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Length, width         | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Enclosure             | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Voltage, freq., pulse | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Make, model           | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Totals:                       |                       |                | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1  | 12              |

## Comments:

On Interp. maps, the SDS and RDS are both turned on so that data appears twice for each site, also the site number is not turned on next to the site symbol, as per standards. This accounts for the site number errors.

Site 63 – this stream has two WSC listed on system, see highlighter on maps.

Site 91 – Incorrect ILP map on Fish Collection Form

Site # - placement doesn't match legend for most sites, adjust legend.



# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437 **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd. **Review date:** March 19, 2002

**FORM 3E** CONTINUED – PAGE 4 OF 4

| Group                         | Item                  | Where to check | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Error locations |
|-------------------------------|-----------------------|----------------|---|---|---|---|---|---|---|---|---|----|-----------------|
| Gear specifications           | Method, method no.    | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Haul                  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Date, time in/out     | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Net type, lgth, dpth  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Mesh size             | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Set, habitat          | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
| Electrofischer specifications | Method, method no.    | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Pass                  | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Time in, time out     | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | EF sec.               | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Length, width         | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Enclosure             | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Voltage, freq., pulse | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Make, model           | 1, 2           |   |   |   |   |   |   |   |   |   |    |                 |
|                               | Totals                |                | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 11+12=23        |

Number of marks (# cards \* 36): 720

Maximum number of errors acceptable (5%): 36

Number of errors found: 23

Is the number of errors acceptable: Yes

Number of errors by location: Fish collection form: \_\_\_\_\_ FDIS: \_\_\_\_\_ Project map: \_\_\_\_\_  
 Interpretive map: \_\_\_\_\_ Lake outline map: \_\_\_\_\_

## Comments:

On Interp. maps, the SDS and RDS are both turned on so that data appears twice for each site, also the site number is not turned on next to the site symbol, as per standards. This accounts for the site number errors.

Site 156 – no wsc on maps

Site 184 – labeled as site 191 on both maps, no reach summary symbol located

Site 191 – not labeled on map.

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

Project name: Babine Forest Products Fish and Fish Habitat Inventory  
 FRBC project number: 10437 MELP project number: BFP-C016-001-2002  
 Submitted by: FINS Consulting Ltd. Terrace, BC  
 QA review by: Acer Resource Consulting Ltd. Review date: March 19, 2002

FORM 3K

## WATERSHED REPORT – PAGE 1 OF 3: UPPER PINKUT

| Report section        | Attribute                       | Accept.<br>(□/x)         | Notes |
|-----------------------|---------------------------------|--------------------------|-------|
| Title page            | Proper title                    | <input type="checkbox"/> |       |
|                       | Watershed code below title      | <input type="checkbox"/> |       |
|                       | Prepared for...                 | <input type="checkbox"/> |       |
|                       | Prepared by...                  | <input type="checkbox"/> |       |
|                       | Signature of R.P.Bio            | <input type="checkbox"/> |       |
| Reference information | Project reference information   | <input type="checkbox"/> |       |
|                       | Watershed information           | <input type="checkbox"/> |       |
|                       | Sampling design summary         | <input type="checkbox"/> |       |
|                       | Contractor information          | <input type="checkbox"/> |       |
| Disclaimer            | Standard wording disclaimer     | <input type="checkbox"/> |       |
| Acknowledgements      |                                 |                          |       |
| Table of contents     | Page numbering correct          | <input type="checkbox"/> |       |
|                       | Report outline follows standard | <input type="checkbox"/> |       |
| Lists                 | List of Tables                  | <input type="checkbox"/> |       |
|                       | List of Figures                 | <input type="checkbox"/> |       |
|                       | List of Attachments             | <input type="checkbox"/> |       |
|                       | List of Appendices              | <input type="checkbox"/> |       |

| Report section              | Attribute                           | Accept.<br>(□/x)         | Notes |
|-----------------------------|-------------------------------------|--------------------------|-------|
| <b>Introduction</b>         |                                     |                          |       |
| Project scope, objectives   | 1:20 000, 1:5000, lakes, etc.       | <input type="checkbox"/> |       |
| Location                    | Description                         | <input type="checkbox"/> |       |
| Overview map                | 8.5 × 11" or 11 × 17"               | <input type="checkbox"/> |       |
|                             | Outline of entire study area        | <input type="checkbox"/> |       |
|                             | Inset map showing relation to BC    | <input type="checkbox"/> |       |
|                             | Sample site locations               | <input type="checkbox"/> |       |
|                             | 1:20 000 map grid                   | <input type="checkbox"/> |       |
|                             | Major communities/roads             | <input type="checkbox"/> |       |
|                             | TRIM/FC aquatic features            | <input type="checkbox"/> |       |
| Access                      | Description                         | <input type="checkbox"/> |       |
| <b>Resource Information</b> | First Nations                       | <input type="checkbox"/> |       |
|                             | Land use, logging, recreation, etc. | <input type="checkbox"/> |       |
|                             | Impacts and uses by wildlife        | <input type="checkbox"/> |       |
|                             | Existing water quality data         | N/A                      |       |
|                             | Previous fish presence (and ref.)   | <input type="checkbox"/> |       |
| <b>Methods</b>              | Reference to RECCE standards        | <input type="checkbox"/> |       |
|                             | Reference to project plan           | <input type="checkbox"/> |       |
|                             | Deviations from RECCE standards     | <input type="checkbox"/> |       |
|                             | Deviations from project plan        | <input type="checkbox"/> |       |
|                             | List of sampling equipment used     | <input type="checkbox"/> |       |

# FISH INVENTORY QUALITY ASSURANCE CHECK FORM

Project name: Babine Forest Products Fish and Fish Habitat Inventory  
 FRBC project number: 10437 MELP project number: BFP-C016-001-2002  
 Submitted by: FINS Consulting Ltd. Terrace, BC  
 QA review by: Acer Resource Consulting Ltd. Review date: March 19, 2002

FORM 3K

CONTINUED – PAGE 2 OF 3: UPPER PINKUT

| Report section                                          | Attribute                                                  | Accept.<br>(□/x)         | Notes           |
|---------------------------------------------------------|------------------------------------------------------------|--------------------------|-----------------|
| <b>Results and Discussion</b>                           |                                                            |                          |                 |
| Logistics                                               | Problems encountered (e.g., weather, access, water levels) | <input type="checkbox"/> |                 |
|                                                         | How were problems addressed?                               | <input type="checkbox"/> |                 |
|                                                         | How were results affected?                                 | <input type="checkbox"/> |                 |
| Summary of sub-basin biophysical information (optional) | Table of information defining each sub-drainage            | N/A                      |                 |
| Habitat and fish distribution                           | Characteristics of fish habitats                           | <input type="checkbox"/> |                 |
|                                                         | Pattern of fish distribution                               | <input type="checkbox"/> |                 |
|                                                         | Location of significant fish populations                   | <input type="checkbox"/> |                 |
|                                                         | Lakes treated as a reach of the stream                     | <input type="checkbox"/> |                 |
|                                                         | Upstream limits of species presence                        | <input type="checkbox"/> |                 |
|                                                         | Obstructions that influenced fish presence                 | <input type="checkbox"/> |                 |
|                                                         | Table of all barriers present                              | <input type="checkbox"/> |                 |
| Fish age, size and life history                         | Summary of life stages, life history, etc.                 | <input type="checkbox"/> |                 |
|                                                         | Length-frequency histograms                                | <input type="checkbox"/> |                 |
|                                                         | Table: Summary of length-at-age...                         | X                        | Add age classes |
|                                                         | Data presented by species                                  | <input type="checkbox"/> |                 |
|                                                         | Data presented by sub-drainage                             | <input type="checkbox"/> |                 |
|                                                         | Age classes appear correct                                 | UNK                      |                 |

| Report section              | Attribute                                  | Accept.<br>(□/x)         | Notes |
|-----------------------------|--------------------------------------------|--------------------------|-------|
| Significant features and    | Fish and fish habitat                      |                          |       |
|                             | Critical habitats                          | <input type="checkbox"/> |       |
|                             | Special populations (rare, etc.)           | <input type="checkbox"/> |       |
|                             | Wild stocks                                | <input type="checkbox"/> |       |
|                             | High value sport fishing                   | <input type="checkbox"/> |       |
|                             | NO management recommendations              | <input type="checkbox"/> |       |
|                             | Habitat protection concerns                |                          |       |
|                             | Fisheries sensitive zones                  | <input type="checkbox"/> |       |
|                             | Fish above 20% gradients                   | <input type="checkbox"/> |       |
|                             | Restoration opportunities                  | <input type="checkbox"/> |       |
| Fish bearing status         | Problem culverts                           | N/A                      | None? |
|                             | Unstable slopes                            | N/A                      |       |
|                             | Brief narrative section                    | <input type="checkbox"/> |       |
|                             | Table: Summary of fish bearing reaches...  | <input type="checkbox"/> |       |
|                             | Table: Summary of non-fish bearing reaches | <input type="checkbox"/> |       |
| Fish bearing status (cont.) | Table: Follow-up sampling required         | <input type="checkbox"/> |       |
|                             | Table: Summary of non-fish bearing reaches | <input type="checkbox"/> |       |
| References                  | All sources in report listed               | <input type="checkbox"/> |       |
|                             | According to CBE style manual              | <input type="checkbox"/> |       |

**FISH INVENTORY QUALITY ASSURANCE CHECK FORM**

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437 **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd. **Review date:** March 19, 2002

**FORM 3K****CONTINUED – PAGE 3 OF OF 3: UPPER PINKUT****Stream Report Appendices**

| Report section                                        | Attribute                     | Accept.<br>( <input type="checkbox"/> /x) | Notes   |
|-------------------------------------------------------|-------------------------------|-------------------------------------------|---------|
| <b>Appendix I.</b><br>FDIS summary and<br>photographs | In ascending order by WSC     | <input type="checkbox"/>                  | By site |
|                                                       | Grouped by site               | <input type="checkbox"/>                  |         |
|                                                       | FDIS reach card printouts     | <input type="checkbox"/>                  |         |
|                                                       | FDIS site card printouts      | <input type="checkbox"/>                  |         |
|                                                       | Fish data collection form     | <input type="checkbox"/>                  |         |
|                                                       | Photos (min. 1, max. 4)       | <input type="checkbox"/>                  |         |
|                                                       | All photos entered in FDIS    | <input type="checkbox"/>                  |         |
|                                                       | Explanatory photo captions    | <input type="checkbox"/>                  |         |
|                                                       | Photos in colour (final only) | <input type="checkbox"/>                  |         |

**Comments:** Overall a thorough and comprehensive report, minor edits and suggestions are indicated in the draft.

| Report section                                                             | Attribute                                                                        | Accept.<br>( <input type="checkbox"/> /x) | Notes        |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------|--------------|
| <b>Appendix II.</b><br>Hardcopy maps –<br>Fisheries project map            | “E” size plots                                                                   | <input type="checkbox"/>                  |              |
|                                                                            | Folded in pocket in report                                                       | For final                                 |              |
|                                                                            | UTM projection                                                                   | <input type="checkbox"/>                  |              |
|                                                                            | 1:20 000 map grid                                                                | <input type="checkbox"/>                  |              |
|                                                                            | 1:20 000 scale                                                                   | <input type="checkbox"/>                  |              |
|                                                                            | Complete title box                                                               | <input type="checkbox"/>                  |              |
|                                                                            | Complete legend box                                                              | <input type="checkbox"/>                  |              |
|                                                                            | Source information box                                                           | <input type="checkbox"/>                  |              |
|                                                                            | Inset map box                                                                    | <input type="checkbox"/>                  |              |
|                                                                            | Fish species box                                                                 | <input type="checkbox"/>                  |              |
|                                                                            | Contour lines (thinned as approp.)                                               | <input type="checkbox"/>                  |              |
|                                                                            | Disclaimer                                                                       | <input type="checkbox"/>                  |              |
|                                                                            | Lake and stream annotation                                                       | <input type="checkbox"/>                  |              |
| <b>Appendix II.</b><br>Hardcopy maps –<br>Fisheries project map<br>(cont.) | WSCs or ILPs for all sampled streams                                             | X                                         | Some missing |
|                                                                            | WSCs or ILPs for all 3 <sup>rd</sup> order or higher streams                     | <input type="checkbox"/>                  |              |
|                                                                            | WSCs or ILPs for every other 1 <sup>st</sup> and 2 <sup>nd</sup> order stream    | <input type="checkbox"/>                  |              |
|                                                                            | WBIDs for all lakes                                                              | <input type="checkbox"/>                  |              |
|                                                                            | Sample site locations/numbers                                                    | <input type="checkbox"/>                  |              |
|                                                                            | All site data symbols attached to sites                                          | <input type="checkbox"/>                  |              |
|                                                                            | Lake summary symbols                                                             | <input type="checkbox"/>                  |              |
|                                                                            | Reach data symbols on all reaches <30% gradient and all reaches containing sites | <input type="checkbox"/>                  |              |
|                                                                            | Features, obstructions and symbols                                               | <input type="checkbox"/>                  |              |
|                                                                            | Reach breaks and numbers                                                         | <input type="checkbox"/>                  |              |

## Stream Report Appendices

| Report section                                                          | Attribute                                                                     | Accept.<br>(□/x)         | Notes        |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------|--------------|
| <b>Appendix II.</b><br>Hardcopy maps –<br>Fisheries interpretive<br>map | “E” size plots                                                                | <input type="checkbox"/> |              |
|                                                                         | Folded in pocket in report                                                    | <input type="checkbox"/> |              |
|                                                                         | UTM projection                                                                | <input type="checkbox"/> |              |
|                                                                         | 1:20 000 map grid                                                             | <input type="checkbox"/> |              |
|                                                                         | 1:20 000 scale                                                                | <input type="checkbox"/> |              |
|                                                                         | Complete title box                                                            | <input type="checkbox"/> |              |
|                                                                         | Complete legend box                                                           | <input type="checkbox"/> |              |
|                                                                         | Source information box                                                        | <input type="checkbox"/> |              |
|                                                                         | Inset map box                                                                 | <input type="checkbox"/> |              |
|                                                                         | Fish species box                                                              | <input type="checkbox"/> |              |
|                                                                         | Contour lines (thinned as approp.)                                            | <input type="checkbox"/> |              |
|                                                                         | Disclaimer                                                                    | <input type="checkbox"/> |              |
|                                                                         | Lake and stream annotation                                                    | <input type="checkbox"/> |              |
|                                                                         | WSCs or ILPs for all sampled streams                                          | X                        | Some missing |
|                                                                         | WSCs or ILPs for all 3 <sup>rd</sup> order or higher streams                  | <input type="checkbox"/> |              |
|                                                                         | WSCs or ILPs for every other 1 <sup>st</sup> and 2 <sup>nd</sup> order stream | <input type="checkbox"/> |              |
|                                                                         | WBIDs for all lakes                                                           | <input type="checkbox"/> |              |
|                                                                         | Sample site locations/numbers                                                 | X                        | See note     |
|                                                                         | Reach breaks and numbers                                                      | <input type="checkbox"/> |              |
|                                                                         | Reach summary symbols for all reaches in the project area                     | X                        | See note     |

| Report section                                                                  | Attribute                                                               | Accept.<br>(□/x)         | Notes |
|---------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------|-------|
| <b>Appendix II.</b><br>Hardcopy maps –<br>Fisheries interpretive<br>map (cont.) | Features, obstructions and symbols (optional)                           | <input type="checkbox"/> |       |
|                                                                                 | Fisheries sensitive zones                                               | <input type="checkbox"/> |       |
|                                                                                 | Fish distribution limits                                                | <input type="checkbox"/> |       |
|                                                                                 | Red/blue, solid/dashed lines to illustrate fish stream class (optional) | <input type="checkbox"/> |       |
|                                                                                 | Roads/communities (optional)                                            | <input type="checkbox"/> |       |

**Notes:**

As noted in consistency section, interpretive maps show RSS and SDS, with no site numbers adjacent to symbol. These layers need to be turned off and on respectively for final plots. Otherwise, the maps and data are consistent and acceptable.

## Stream Report Attachments

| Report section                                        | Attribute                                       | Accept<br>(□/x)           | Notes                      |
|-------------------------------------------------------|-------------------------------------------------|---------------------------|----------------------------|
| <b>Attachment I.</b><br>Planning document             | Budget breakdown by phase                       | <input type="checkbox"/>  | To be submitted with final |
|                                                       | Project sampling design                         | <input type="checkbox"/>  |                            |
|                                                       | Process of site selection                       | <input type="checkbox"/>  |                            |
|                                                       | Reach table                                     | <input type="checkbox"/>  |                            |
|                                                       | Lake table                                      | <input type="checkbox"/>  |                            |
|                                                       | Random sample table                             | <input type="checkbox"/>  |                            |
|                                                       | References, contacts list                       | <input type="checkbox"/>  |                            |
| <b>Attachment II.</b><br>Field notes                  | Field book or facsimile                         | <input type="checkbox"/>  |                            |
|                                                       | Site cards                                      | <input type="checkbox"/>  |                            |
|                                                       | Fish collection forms                           | <input type="checkbox"/>  |                            |
|                                                       | Individual fish data forms                      | <input type="checkbox"/>  |                            |
|                                                       | Field working maps                              | <input type="checkbox"/>  |                            |
| <b>Attachment III.</b><br>Fish ageing structures      | Actual ageing structures                        | N/A                       |                            |
|                                                       | Labelled photocopies                            | N/A                       |                            |
|                                                       | Annuli identified with red                      | N/A                       |                            |
|                                                       | Age data are correct                            | N/A                       |                            |
| <b>Attachment IV.</b><br>Voucher, DNA samples         | Table: Vouchers collected                       | N/A                       |                            |
|                                                       | Table: DNA collected                            | N/A                       |                            |
| <b>Attachment V.</b><br>Photodocumentation            | Table: Photo summary report                     | <input type="checkbox"/>  |                            |
|                                                       | Colour thumbnail reference                      | <input type="checkbox"/>  |                            |
|                                                       | Photo CD                                        | <input type="checkbox"/>  |                            |
|                                                       | CD Image #s match digital                       | <input type="checkbox"/>  |                            |
|                                                       | Negatives in plastic sleeves                    | <input type="checkbox"/>  |                            |
|                                                       | Negatives labelled                              | <input type="checkbox"/>  |                            |
| <b>Attachment V.</b><br>Photodocumentation<br>(cont.) | Negative #s match digital                       | <input type="checkbox"/>  |                            |
|                                                       | Prints in plastic sleeves                       | <input type="checkbox"/>  |                            |
|                                                       | Prints labelled                                 | N/A                       |                            |
| <b>Attachment VI.</b><br>Digital data                 | Budget breakdown by phase                       | <input type="checkbox"/>  |                            |
|                                                       | Project sampling design                         | <input type="checkbox"/>  |                            |
|                                                       | References, contacts list                       | <input type="checkbox"/>  |                            |
|                                                       | Table of vouchers collected                     | N/A                       |                            |
|                                                       | Table of DNA collected                          | N/A                       |                            |
|                                                       | Photo summary report                            | <input type="checkbox"/>  |                            |
|                                                       | Report tables, figures                          | <input type="checkbox"/>  |                            |
|                                                       | Report text                                     | <input type="checkbox"/>  |                            |
|                                                       | FDISDAT.MDB                                     | <input type="checkbox"/>  |                            |
|                                                       | Mapping files (plot files)                      | To be included with final |                            |
|                                                       | Mapping files (metadata and map features files) |                           |                            |
| <b>Attachment VII.</b><br>FISS update data            | FISS data forms and maps                        | <input type="checkbox"/>  |                            |
|                                                       | Copies of reference material                    | <input type="checkbox"/>  |                            |
|                                                       | Data on forms match FDIS                        | <input type="checkbox"/>  |                            |
| <b>Attachment VIII.</b><br>Aerial photography         | Purchased aerial photos                         | N/A                       |                            |
|                                                       | Aerial video tape                               | N/A                       |                            |

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory  
**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002  
**Submitted by:** FINS Consulting Ltd. Terrace, BC  
**QA review by:** Acer Resource Consulting Ltd.      **Review date:** March 19, 2002

### FORM 3L FISH IDENTIFICATION AND AGING – PAGE 1 OF 1

#### Fish Identification

|                                                     | Y/N | Comments                 |
|-----------------------------------------------------|-----|--------------------------|
| Voucher requirements described in project plan met? | Y   |                          |
| Evidence of:                                        | N/A |                          |
| • voucher samples collected                         |     |                          |
| • problem fish as necessary                         | N/A |                          |
| • results of expert Ids                             | N/A | No identification issues |
| Final fish identifications incorporated:            | N/A |                          |
| • FDIS                                              |     |                          |
| • reports                                           | N/A |                          |
| • maps                                              | N/A |                          |

#### Fish Aging

|                                                           | Y/N | Comments                       |
|-----------------------------------------------------------|-----|--------------------------------|
| Fish aging QA requirements described in project plan met? | N/A | No ageing structures collected |
| Evidence of:                                              |     |                                |
| • aging QA                                                |     |                                |
| Final fish ages incorporated:                             |     |                                |
| • FDIS                                                    |     |                                |
| • reports                                                 |     |                                |
| • maps                                                    |     |                                |

---

## FISH INVENTORY QUALITY ASSURANCE CHECK FORM

**Project name:** Babine Forest Products Fish and Fish Habitat Inventory

**FRBC project number:** 10437      **MELP project number:** BFP-C016-001-2002

**Submitted by:** FINS Consulting Ltd. Terrace, BC

**QA review by:** Acer Resource Consulting Ltd.\_      **Review date:** March 19, 2002

---

NOTES