



**FERGUSON CREEK WATERSHED HYDROPOWER PROJECT**

May 15, 2008

Front Counter BC  
Integrated Land Management Bureau  
210-301 Victoria Street, Kamloops, BC  
V2C 2A3

Attention: Ernest Scherly

Dear Mr. Scherly:

**RE: FERGUSON CREEK WATERSHED HYDROPOWER PROJECT**

The SLRD wishes to apply for a Water License and a Crown Land Tenure in order to proceed with investigation of the Ferguson Creek (also known as Sucker Creek) Watershed Hydropower Project.

We have enclosed a cheque in the amount of \$8465.00 to cover the cost of both applications.

You will also find enclosed a detailed Project Description, application forms, maps, sketch plans of the proposed powerhouse and a number legal titles to the District Lots over which this project is proposed to be constructed.

If you should have any questions or require further clarification or information, please feel free to contact me directly.

Regards,

A handwritten signature in black ink, appearing to read "Kimberly Needham".

Kimberly Needham, Strategy Planner  
(604) 894-6371 ext. 242



## **FERGUSON CREEK WATERSHED HYDROPOWER PROJECT**

Ferguson Creek

Hydroelectric Project

- Water License File No: \_\_\_\_\_

- Crown Land File No: \_\_\_\_\_

### **EXECUTIVE SUMMARY:**

Since July, 2008, the Squamish-Lillooet Regional District (SLRD) has been exploring the development of a hydroelectric power project in the Squamish-Lillooet Regional District.

The SLRD has completed preliminary investigative work and is now proposing to develop a run-of-river hydroelectric power project near Gold Bridge, BC. The attached Figure 1 – Location Map provides an overview of the Ferguson Creek Watershed Hydropower Project.

It is anticipated that the Ferguson Creek Watershed Hydropower Project will connect to BC Hydro's grid.



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## **FERGUSON CREEK WATERSHED HYDROPOWER PROJECT**

### **PROPONENT IDENTIFICATION:**

The Proponent for the project is the Squamish-Lillooet Regional District (SLRD). The SLRD is a regional district incorporated under the *Local Government Act* in the Province of British Columbia.

Address:

Squamish-Lillooet Regional District  
Box 219, 1350 Aster Street  
Pemberton, British Columbia  
V0N 2L0

Tel: (604) 894-6371  
Fax: (604) 894-6526

The Proponent's lead contact for the Project is Ms. Kimberly Needham at the above address and phone number or via email at [kneedham@slrd.bc.ca](mailto:kneedham@slrd.bc.ca).

## **FERGUSON CREEK WATERSHED HYDROPOWER PROJECT**

### **DESCRIPTION AND PLANT CAPACITY:**

Ferguson Creek (also known as Sucker Creek) is located at Gold Bridge, BC in the Squamish-Lillooet Regional District. The proposed project is located on the lower reaches of Ferguson Creek with an intake at elevation 880 m and a powerhouse at elevation 670 m (see Figure 3).

The majority of land surrounding Gold Bridge, and the Ferguson Creek watershed has been divided into District Lots and related Crown Land Grant Parcels. Active



### **FERGUSON CREEK WATERSHED HYDROPOWER PROJECT**

Mineral and Placer claims are also present throughout the area. The SLRD will seek to enter into early agreements with all claim holders.

Other relevant land use registered with the Province includes an Environmental, Conservation and Recreation Reserve which covers the entire Ferguson Creek watershed upstream of the proposed intake site, and a Miscellaneous Land Uses Reserve which overlaps the lower portion of the proposed project area.

The run-of-river power project is proposed to have a plant capacity of 5 MW and is anticipated to operate an average annual power output of 2,000 kW. This run-of-river project will utilize the naturally occurring flow of water from Ferguson Creek, which is a tributary to Carpenter Lake.

The Project consists of an intake, penstock, powerhouse and tailrace, transmission line, access road and lay down area(s). The Project will connect into a single transmission line and is anticipated to connect to BC Hydro's grid.

The following is a summary of the Project's principal features:

Plant Capacity	5MW
Average Annual Power Output	2,000 kW
Maximum Flow Rate	3.00 m <sup>3</sup> /s (to be confirmed by site gauging)
Penstock Length	1200 m
Penstock Elevation – Upper End	640 m
Penstock Elevation – Lower End	400 m
Water conduit diameter	1.2 m

The total area for the Ferguson Creek hydro power project application is 49 ha as can be seen on Figure 3.

At present, the SLRD is requesting a Crown land tenure and Water Licence from the Integrated Land Management Bureau (ILMB) to commence work on more detailed studies and analyses. This work will be used to complete a more detailed Project Development/Management Plan.

#### **Access Roads**

Access roads will make the best possible use of the existing road infrastructure. In instances where construction is close to the road or where the slope is too steep for a road, cat trail access may be used where feasible. New road construction, road upgrades and a road use agreement with the applicable Crown Land Grant and



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Mineral and Placer Claim holders and other relevant parties may be required. Road Use Permits may also be required.

### **Intake**

The intake/diversion works will consist of a reinforced concrete weir and sluiceway, earth flanks with rock armouring, trash racks and screens.

### **Penstock**

The attached site plan (Figure 3) indicates the penstock route as well as the overall project layout. The penstock is approximately 1.2 m in diameter and 1200 m long. Penstock segments will be constructed of welded steel pipe.

### **Generation Facility**

The generation facility will be a pre-engineered light steel frame structure on a concrete foundation, anchored to bedrock where possible. Figure 4 provides a concept drawing of the powerhouse.

The powerhouse will house one turbine/generator unit and controls. The turbine under consideration will most likely be a Pelton Unit.

A transformer will be located outside the powerhouse installed on a concrete slab within a fenced area.

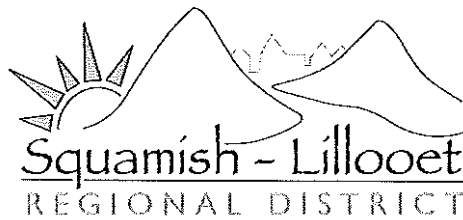
The preliminary land requirement for the powerhouse is approximately 200 m by 200 m. This information may be updated as the exact location and area are confirmed in the field.

### **Grid Connection**

The transmission line is identified on Figure 3. At this time the Ferguson Creek Hydro Power Project is anticipated to connect to BC Hydro's electrical grid. Final location is yet to be determined.

### **Staging and Spoil Areas**

Preliminary staging and spoil areas (lay down), borrow pits, and spoil disposal areas will be determined as the project design advances and reasonable estimates of the material volume become available.



## **FERGUSON CREEK WATERSHED HYDROPOWER PROJECT**

### **MARKET FOR ELECTRICITY FROM THE PROJECT**

The energy generated will be for sale to BC Hydro.

### **PROPOSED DEVELOPMENT SCHEDULE**

The following is the SLRD's proposed Development Plan schedule to building out the Ferguson Creek Hydro Power Project, broken down into phases.

Phase 1 – Exploration / Feasibility Study                      August 2009 – May 2010

Phase 2 – Project Initiation    May 2010 – August 2010

SLRD submits land and water applications  
ILMB reviews SLRD's Ferguson Creek Hydro Power Project  
SLRD initiates environmental, social and economic studies

Phase 3 – Project Development                                      August 2012

SLRD commences work on the Development Plan  
ILMB Land and Water licence approvals

Phase 4 – Project Construction                                      March 2012

Phase 5 – Completed Project Build-out                              December 2014