

# **Paradise Creek Hydro Project**

## **Preliminary Project Definition**

### **Executive Summary:**

The Paradise Creek Hydro Project is a run of the river hydroelectric project on a small creek north of Blue River, BC. This project is being proposed by a private British Columbia corporation.

### **Proponent Identification:**

The proponent for this project is:

**Name:** North Fork Resources Inc.  
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**Company Representative:** Dale Benke

North Fork Resources Inc. was incorporated in 1998 and is a successful, British Columbia family owned natural resource company. North Fork Resources Inc. is primarily involved with projects that manage renewable resource assets on a long-term sustained yield basis.

### **Project Description:**

The project is composed of one run of the river hydroelectric power site on the lower section of Paradise Creek that flows from Paradise Lake. Paradise Creek is located approximately 36 km north of Blue River on Highway 5, in the east central portion of British Columbia. Paradise Creek is a small drainage of approximately 5.7 km<sup>2</sup> with the headwaters being dominated by the 10 hectare Paradise Lake and is a tributary of the North Thompson River.

### **Project Components:**

#### **Paradise Creek Site**

The site will consist of an intake, high pressure penstock, powerhouse, tailrace, powerline, staging areas, and access roads.

The intake will consist of an overflow weir and water intake. The intake will be at an approximate elevation of 1400m above mean sea level and located at approximately 119° 03'18"W, 52° 25'13"N.

The penstock will be approximately 2100m long. The approximately 0.45m diameter penstock will serve to direct the water from the intake to the powerhouse.

The powerhouse will be at an approximate elevation of 735m above mean sea level and located at approximately 119° 09'03"W, 52° 25'18"N. The structure will be a metal clad

frame building on a concrete foundation. The powerhouse dimensions will be roughly 8m long by 7m wide and 4m high; it will house the turbine and generator unit and the associated controls.

The tailrace will be designed so that the velocity of the water, as it enters the stream proper, is similar to the bypassed reach velocity. The tailrace will be approximately 30m long and will consist of natural materials and rip rap rock.

The powerline will be 1800m long and will tie into the end of the existing BC Hydro distribution powerline at Highway 5. Approximately 1500m of the total powerline's 1800m length will be adjacent to Highway 5. The powerline will be single wooden pole construction.

There are two staging areas required for the site, one at the powerhouse and one at the intake. Each area will be approximately 100m by 100m.

Nearly all the access that is required for this site utilizes existing logging roads. Access to the powerhouse will be via existing logging roads and a 0.1 km section of new construction road.

Access to the intake will be via existing logging roads and a 1.0 km section of new construction road.

#### **Capacity of Project:**

Through preliminary stream flow analysis and comparative drainage analysis the maximum design flow available for power generation is  $0.33\text{m}^3/\text{sec}$ . The power potential for the Paradise Creek Site is 1.7 MW with an annual production of 7.5 GWH/year.

#### **Linkages with Other Projects:**

None.

#### **Market for Electricity from the Project:**

The electricity produced from this project is to be sold to BC Hydro in the Standing Offer Program.

#### **Schedule for Completion of the Project:**

August 2009 - September 2010	Acquire Water Licence and Land Tenure
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October 2010 – May 2011	BC Hydro Connection Approval
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June 2011 – October 2011	Project Construction
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November 2011	Plant Commissioning
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