

Peace River Site C Hydro Project

Stage 2 - Environmental Studies

Study Outline: Peace River Water Quality Study

Introduction

BC Hydro initiated Peace River baseline water quality data collection in 2006 including continuous recording of water temperature, collection of surface water quality samples, sediment and vegetation sampling, and installation of automated turbidity monitoring stations at various locations within the Peace River mainstem and tributaries. In 2008 the collection of baseline limnology from Dinosaur Reservoir was added to the program to supplement the baseline water quality data collection program in the Peace River.

Study Objective

The objective is to collect baseline water quality data in the Peace River and Dinosaur Reservoir. The baseline water quality data will be used for future modeling and evaluation of potential environmental effects associated with the potential Site C project.

During Stage 2, discussions with government agencies and First Nations will include the opportunity to review the current water quality program and results, and to identify the potential need for the collection of new parameters or to identify additional sites.

Scope of Work

Temperature and water quality monitoring sites have been established in the Peace River, local tributaries and Dinosaur Reservoir. Water quality sampling is conducted six times throughout the year. The Peace River water quality monitoring site locations include:

Peace River Mainstem

Upstream of Alces River
(near the BC / Alberta border)
Upstream of Pine River
Upstream of Moberly River
Upstream of Halfway River
Hudson's Hope

Peace River Tributaries

Kiskatinaw River
Beatton River
Pine River
Moberly River
Halfway River
Farrell Creek

General water quality parameters being collected in the Peace River and tributaries include, but are not limited to:

- Water temperature
- Turbidity
- Total gas pressure
- Nutrients
- Total metals
- Dissolved metals
- Dissolved organic carbon
- Chlorophyll a

The Dinosaur Reservoir water quality sampling sites are located at the upstream, middle and downstream areas of the reservoir. Basic water quality baseline data collection includes continuous thermographs, and temperature, dissolved oxygen and total gas pressure profiles within the reservoir.

Reporting

Final reports for the 2008 Peace River Water Quality study will be available at the end of Stage 2.