

Peace River Site C Hydro Project

Stage 2 - Environmental Studies

Study Outline: Water Temperature Studies

Introduction

The creation of the potential Site C reservoir is likely to change water temperature from the current river temperatures. Water temperature predictions are a key input to the assessment of local climate, fish and wildlife, socio-economic and other effects. The water quality and fish studies that have been ongoing in the Peace River for the potential Site C project will provide data for the Water Temperature Modeling Study.

Study Objectives

The Site C Stage 2 Water Temperature Modeling Study will use temperature data and other necessary inputs to model:

- Expected water temperature characteristics in the potential Site C reservoir, including expected ice cover;
- Expected water temperature characteristics at the outflow of the Site C dam. This information will allow prediction of effects downstream of the potential Site C dam. Water temperature input will be provided for the climatological assessment and other effects assessments as required, such as downstream ice modeling and aquatic habitat assessment.

Scope of Work

The water Temperature Modeling Study will be conducted in 2008 and 2009. The scope of work includes:

- Collect, compile and review existing climatological data, water temperature data, flow data, and pertinent reports
- Confirm modeling methodology
- Identify data gaps and provide direction for the model and future data collection needs
- Compute the water temperature regime in the Site C Reservoir for both current and proposed project conditions
- Summarize pertinent baseline data used for the modeling exercise and results of water temperature modeling

Reporting

The water temperature modeling study report will be available at the end of 2009.