

# Field Studies Information Sheet

## PEACE RIVER SITE C HYDRO PROJECT

### October 2009 Field Study Overview

BC Hydro is conducting environmental and engineering field studies on and around the Peace River, between the Williston Reservoir and the B.C.-Alberta border, as part of the evaluation of the potential Site C project. An overview of studies that will be taking place in October is below. Additional study activities may occur; notice of these studies will be posted at [www.bchydro.com/sitec](http://www.bchydro.com/sitec).

<b>Field Study (additional details are attached)</b>
Wildlife Studies in the Peace River Region –Tree Cavity Assessments
Peace River and Tributaries Fish Studies
Peace River Fish Telemetry Studies
Peace River Angler and River-Based Recreational Use Study
Reading of Slope Monitoring Instrumentation along the Peace River
Wind Monitoring in the Peace River Region
Foundation Pump Testing on the North Bank of the Potential Dam Site
Investigation for Potential Sources of Construction Material

Because much of the information currently known about the potential Site C project is almost 25 years old, information from new field studies is required to update engineering, environmental studies, and other technical work.

No decision has been made to build Site C. BC Hydro is taking a stage-by-stage approach to the evaluation of the potential project and is currently in Stage 2 – Project Definition and Consultation.

Some field studies may require access to public and private land. BC Hydro will obtain permission before accessing private property.

#### SITE C FIELD STUDIES

- Ongoing, regular BC Hydro operations work may also be taking place on the Peace River and tributaries. This work is in addition to the Site C field study activities outlined here and is a component of BC Hydro's Peace River water license requirements program. For more information about this work, please visit [www.bchydro.com/planning\\_regulatory/water\\_use\\_planning/northern\\_interior.html](http://www.bchydro.com/planning_regulatory/water_use_planning/northern_interior.html).
- Golder Associates Ltd. has been employed by BC Hydro to provide environmental and archaeological monitoring during geotechnical investigations. BC Hydro has also invited representatives of First Nations to monitor geotechnical work.

Field study updates are available at [www.bchydro.com/sitec](http://www.bchydro.com/sitec) and in the Community Consultation Office in Fort St. John.

FOR GENERATIONS

[www.bchydro.com/sitec](http://www.bchydro.com/sitec)

For further information, please contact:

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Study Name	Description	Timing
<b>Wildlife Studies in the Peace River Region - Tree Cavity Assessments</b>	<p>BC Hydro is conducting tree cavity assessments in the Peace River area.</p> <p>The surveys will identify large trees capable of supporting cavities (hollow spaces) suitable for use by fisher as maternal den sites both in the Peace River valley and in the surrounding upland forests.</p> <p>Access to public and private land will be required in order to complete this survey work. BC Hydro will obtain permission from land owners and leaseholders before accessing private property.</p>	October 2009 <i>Ongoing studies from July 2009</i>
<b>Peace River and Tributaries Fish Studies</b>	<p>BC Hydro continues to conduct fisheries studies on the Peace River and tributaries. The studies involve collecting baseline fisheries information from the Peace River and tributaries by sampling (and releasing) fish by boat, backpack electro-fishing, beach seines (vertical fishing nets) and fish traps.</p> <p>Sampling site access will be conducted by foot and boat in the spring, summer and fall. Access to remote sampling sites will be by helicopter.</p> <p>The following sites will be surveyed: Peace River, Moberly River and Halfway River.</p> <p>From September 30 to October 29, 2009 a temporary fish fence and fish traps will be installed in the lower Moberly River. The fence will be located upstream of the confluence of the Peace River and will assist in counting adult mountain whitefish moving upstream and recording fish species moving downstream to the Peace River.</p> <p>There will be a removable panel to allow boat traffic to pass and the fence will be attended by fisheries technicians daily. Signage will be placed 200 metres up and downstream of the fence. Minimal boat traffic is anticipated as the water level in the Moberly River will be very low during this time.</p>	October 2009 <i>Ongoing studies in the spring, summer and fall</i>

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<b>Peace River Fish Telemetry Studies</b>	<p>BC Hydro continues to conduct periodic aerial surveys over the Peace River in the Fort St. John area to determine the locations and movement of radio-tagged fish in the Peace River and tributaries. These surveys began in April and will continue until fall 2009.</p> <p>Helicopter and airplane flyovers will be conducted every three weeks on:</p> <ul style="list-style-type: none"> <li>• Peace River mainstem from the Peace Canyon Dam downstream to the B.C.-Alberta border and potentially as far as Peace River, Alberta</li> <li>• Halfway River from the mouth to the upper headwater tributaries</li> <li>• Pine River to the upper extent of the Sukunka and Burnt rivers, and the Murray River to Kinuseo Falls</li> <li>• Beatton River to the Doig River confluence</li> </ul> <p>In addition to aerial surveys, telemetry stations are set-up on the ground to track the movement of radio-tagged fish as they move past these stations in the Peace River and tributaries.</p> <p>Telemetry stations are located on the Moberly River, Beatton River, Pine River and Halfway River.</p> <p>Researchers will access the telemetry station sites every three weeks by vehicle, ATV, helicopter and foot.</p>	October 2009 <i>Ongoing studies</i> <i>Overflights every three weeks</i> <i>Monthly access to telemetry stations</i>
<b>Peace River Angler and River-Based Recreational Use Survey</b>	<p>BC Hydro is conducting a multi-year angler and river-based recreation use survey along the Peace River and tributaries between Peace Canyon Dam and the B.C.-Alberta border.</p> <p>This study will result in a detailed survey of current angler and recreational use and valid estimates of total angler effort and catch each year. Estimates of angler effort will be made using flyovers of the study area in fixed-wing aircraft.</p> <p>The average catch will be estimated from shore-based interviews at boat landing or fishing sites. Flyovers and interviews will be conducted on a monthly basis through fall 2009.</p>	October 2009 <i>Surveys to run monthly through fall 2009</i>

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<b>Reading of Slope Monitoring Instrumentation along the Peace River</b>	<p>BC Hydro is conducting a program to read slope monitoring instruments and to confirm and document surface geology at various sites along the north and south banks of the Peace River, upstream from the potential Site C dam area.</p> <p>The monitoring of instrumentation on the north bank will continue weekly throughout the fall. The monitoring of instrumentation on the south bank commenced in May and will take place every four months.</p> <p>North bank access will be by vehicle via the existing north bank access road. South bank access will be by helicopter and foot.</p>	October 2009 <i>North bank: ongoing weekly monitoring</i> <i>South bank: ongoing monitoring</i>
<b>Wind Monitoring in the Peace River Region</b>	<p>BC Hydro has initiated the collection of wind data to assist in engineering evaluations for the potential Site C project.</p> <p>Five temporary wind monitoring stations have been placed on private and BC Hydro owned land between Hudson's Hope and the potential Site C dam location.</p> <p>Stations will be visited regularly to retrieve data. Access to the monitoring stations will be by vehicle.</p>	October 2009 <i>Ongoing monitoring from February 2009</i>
<b>Foundation Pump Test on the North Bank of the Potential Dam Site</b>	<p>BC Hydro is studying bedrock permeability at the north bank of the potential dam site.</p> <p>The drilling of a number of boreholes has been completed to allow examination and instrumentation of the bedrock formation.</p> <p>Instrumentation installation and pump testing will continue throughout the fall and into the winter.</p> <p>Environmental and archaeological monitoring will be conducted during the investigations. North bank access will be by vehicle via the existing north bank access road.</p>	October – November 2009 <i>Ongoing studies</i>

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<b>Investigations for Potential Sources of Construction Material</b>	<p>BC Hydro is conducting investigations to find sources of material that would be needed to construct the potential Site C dam, if the project were to proceed.</p> <p>BC Hydro's conceptual design for the potential Site C dam is an earth filled dam with a core of impervious fill material, such as glacial till. This material would act as the primary barrier to prevent water movement through the structure. Investigation of feasible sources of impervious fill materials within 10 kilometres of the potential dam site is part of engineering activities planned for Stage 2.</p> <p>Investigations are being conducted on the north bank of the Peace River between the river and the Alaska Highway, from Fort St. John to Charlie Lake.</p> <p>Current investigation work requires access to private land. BC Hydro will arrange permission before accessing private land. Environmental and archaeological monitors will be present during geotechnical work.</p>	October 2009 <i>Tests continuing through fall 2009</i>
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