

FIELD STUDIES INFORMATION SHEET

October 2010

BC Hydro is conducting environmental and engineering field studies on and around the Peace River between the Williston Reservoir and the Alberta border as part of Stage 3 of the Site C Clean Energy Project. Environmental and socio-economic studies will advance from baseline work to effects assessment, including identifying and evaluating potential options for mitigation.

An overview of studies that will be taking place in October 2010 is below. Additional study activities may occur; notice of these studies will be posted at www.bchydro.com/sitec.

Overview
◆ Wildlife Studies in the Peace Region – Mule Deer, Moose and Elk Study
◆ Wildlife Studies in the Peace Region – Bat Hibernacula Study
◆ Wind Monitoring in the Peace River Valley
◆ Climate Monitoring in the Peace River Region
◆ Peace River and Tributaries Fish Studies
◆ Peace River Aquatic Productivity and Assessment
◆ Peace River Geomorphology and Sediment Transport Studies
◆ Foundation Testing on the North Bank of the Proposed Dam Site
◆ Geotechnical Investigations on the North and South Banks of the Proposed Dam Site
◆ Heritage Study Program

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

Field study updates are available at www.bchydro.com/sitec and in the Community Consultation offices in Fort St. John and Hudson's Hope.

For further information, please contact:
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SITE C FIELD STUDIES

- Ongoing, regular BC Hydro 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 related to BC Hydro's Peace River water license requirements program or other operations work. For more information, please visit: 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.

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Study Name	Description	Timing
Wildlife Studies in the Peace Region – Mule Deer, Moose and Elk Study	<p>BC Hydro is conducting a mule deer, moose and elk study in the Peace River area from Hudson’s Hope to the B.C. – Alberta border.</p> <p>The purpose of the study is to further the understanding of mule deer, moose and elk habitat use and movement patterns in the Peace River region.</p> <p>Monitoring and habitat data collection began in mid-February and will continue for up to 24 months. Animals will be located using a combination of ground based telemetry and fixed wing telemetry flights. Flights are scheduled for the first and last week of the month (weather dependent).</p> <p>Ground-based locating of animals occurs during both the first and last week of the month.</p>	<p>October 2010</p> <p><i>Phase 2 monitoring will occur from February 2010 to winter 2012.</i></p>
Wildlife Studies in the Peace Region – Bat Hibernacula Study	<p>BC Hydro is conducting a bat hibernacula study. The purpose of the study is to document the presence of bat hibernacula within and outside the proposed Site C reservoir area.</p> <p>The work will be conducted between the location of the proposed Site C project and the Alberta border, and other potential sites in the surrounding area.</p> <p>Equipment placed at potential hibernacula in September will continue to collect data on presence and level of use by bats. Acoustic monitoring will occur until mid-November.</p>	<p>October 2010</p> <p><i>Ongoing studies.</i></p>

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Wind Monitoring in the Peace River Valley	<p>BC Hydro continues to collect wind data to assist in engineering evaluations for the proposed 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 proposed Site C dam location.</p> <p>Stations are visited regularly to retrieve data. Access to the monitoring stations is by vehicle.</p>	<p>October 2010</p> <p><i>Ongoing monitoring from February 2009.</i></p>
Climate Monitoring in the Peace River Region	<p>BC Hydro is installing four climate monitoring stations and adding equipment to two of the existing wind stations on private and BC Hydro owned land in the Peace River region to collect information on various climate features including: air temperature, humidity, wind speed and direction, fog frequency and density and precipitation.</p> <p>These climate data will be used to establish baseline conditions and to inform the effects assessment of the Site C project on in-valley climate.</p> <p>Stations will be visited regularly to retrieve data. Access will be by vehicle and foot.</p>	<p>October – December 2010 (<i>station and equipment installation and testing</i>)</p>

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<p>Peace River and Tributaries Fish Studies</p>	<p>BC Hydro is continuing fisheries studies on the Peace River and tributaries downstream to the Pouce Coupe River in Alberta. The studies involve collecting baseline fisheries information from the Peace River and tributaries by sampling fish and fish habitat by boat, backpack electro-fishing, beach seines and fish traps.</p> <p>This program includes use of two rotary screw traps installed in the Peace River and one rotary screw trap placed in the lower Moberly River. The fish traps will be operated from May to October. Each fish trap is housed in a pontoon structure approximately 4m by 7m.</p> <p>The Peace River fish traps are located just downstream of the Moberly River confluence, one adjacent to each shore. The Moberly River fish trap will be located about 350 metres upstream from the confluence of the Peace River.</p> <p>Sampling site access is conducted by foot and boat in the spring, summer and fall. Access to remote sampling sites may be by helicopter.</p> <p>The following sites are being surveyed: Peace River, Moberly River, Halfway River and Dinosaur Reservoir.</p>	<p>October 2010</p> <p><i>Ongoing studies.</i></p>

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Study Name	Description	Timing
Peace River Aquatic Productivity and Assessment	<p>BC Hydro is conducting a Peace River aquatic and productivity study to collect baseline aquatic data for future assessment and modelling.</p> <p>The study involves collecting water quality and nutrient samples, lower trophic level organisms (e.g. periphyton, plankton), and invertebrates (insects) from Williston Reservoir, Dinosaur Reservoir, Peace River and its tributaries. Soil and vegetation samples are collected throughout the Peace River valley.</p> <p>The field program is conducted from May through October. Sample site access is primarily by boat. Foot access is required to a few sites.</p>	May – October 2010
Peace River Geomorphology and Sediment Transport Studies	<p>BC Hydro is conducting river geomorphology and sediment transport studies to characterize baseline river definition and sediment loading at five sites on the Peace River and its tributaries (Farrell Creek, Halfway River, Pine River and two sites in the Peace River extending into Alberta).</p> <p>In October, turbidity recording stations that were installed to provide data for estimating suspended sediment concentration will be removed.</p> <p>Bathymetric mapping of the river bed is being performed at various locations within the Peace River from the Site C dam site downstream to Many Islands, Alberta.</p> <p>The field program is being conducted from May through October. Sample site access will be primarily by boat. Foot access will be required for a few sites.</p>	May – October 2010

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Study Name	Description	Timing
Foundation Pump Test on the North Bank of the Proposed Dam Site	<p>BC Hydro is studying bedrock permeability at the north bank of the proposed dam site.</p> <p>Monitoring of instrumentation will continue throughout the fall.</p> <p>North bank access is by vehicle via the existing north bank access road.</p>	<p>October - November 2010</p> <p><i>Ongoing studies.</i></p>
Geotechnical Investigations on the North and South Banks of the Proposed Dam Site	<p>Site cleanup and demobilization of geotechnical investigations is being conducted on the south bank.</p> <p>Archaeological and environment permitting requirements have been completed for this work. Environmental and archaeological monitoring is being implemented as required.</p> <p>Equipment and personnel are mobilized by road and boat.</p>	<p>September — October 2010</p>
Heritage Study Program	<p>BC Hydro is assessing archaeological, historic and paleontological sites in the proposed Site C Project area. The archaeological study has been designed in consultation with the BC Archaeology Branch and meets the requirements of the <i>Heritage Conservation Act</i>.</p> <p>The field work will identify, record and evaluate heritage sites located within the development area and will be used to assess potential effects of the project to these sites, and recommend mitigation options.</p> <p>The majority of the work will be completed with shovel tests, as well as visual inspections of areas with good soil exposures, such as freshly tilled fields. Crews will be primarily on foot, with land access by road or boat, supported occasional by helicopter or all-terrain vehicles.</p>	<p>October 2010 – December 2011</p> <p><i>Additional studies may be required in 2012</i></p>