

MONTHLY FIELD STUDIES SUMMARY

March and April 2012

The Site C Clean Energy Project (Site C) is now in Stage 3, the environmental and regulatory review phase, which will include an independent environmental assessment. Stage 3 work includes conducting environmental and engineering field studies on and around the Peace River between the Williston Reservoir and the Alberta border.

An overview of studies that will be taking place in March and April 2012 is below. Additional study activities may occur; notice of these studies will be posted at www.bchydro.com/sitec.

Overview
Socio-Economic Studies
◆ Socio-Economic Assessment
Wildlife Studies
◆ Avian Study Program
◆ Fisher Study Program
◆ Mule Deer, Moose and Elk Study Program
Physical Environment Studies
◆ Geomorphology and Sediment Transport Studies
◆ Climate and Air Quality Monitoring in the Peace River Valley
Fish and Aquatic Studies
◆ Peace, Moberly and Halfway River Fish Movement
◆ Peace, Moberly and Halfway River Aquatic Productivity and Modelling Study
Engineering Investigations
◆ Dam Site Investigations: Site Preparation

Some field studies may require access to public and private land. BC Hydro will obtain permission before accessing private property and will notify property owners who may be directly impacted by helicopters. Ongoing regular BC Hydro work, in addition to the Site C field study activities outlined here, may be taking place on the Peace River and tributaries. This work is related to BC Hydro's Peace River water license requirements program or other operations work.

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

For further information, please contact:

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March and April 2012

Study Name	Description	Timing
<p>Socio-Economic Studies – Socio-Economic Assessment</p>	<p>BC Hydro is undertaking a socio-economic assessment, which will include all components of the Site C project.</p> <p>Topic areas within the socio-economic assessment include: economic, land and resource use, socio-community, visual and aesthetic resources, health, and First Nations community assessments. The study components may be revised in scope or timing on the basis of input from the public, First Nations, government agencies or consultant expertise, as part of the Pre-Application stage of the Environmental Assessment process.</p> <p>From August 2011 to December 2011, the first phase of the study involved baseline data gathering.</p> <p>Starting in January 2012, the second phase of the study involves effects assessment in accordance with the B.C. Environmental Assessment Office and the Canadian Environmental Assessment Agency guidelines for environmental assessments. Study team members may be following up with local government, government agencies, businesses and local government organizations to confirm baseline information within each potential effect topic areas.</p>	<p>January 2012 – March 2012</p> <p><i>Effects assessment phase</i></p>
<p>Wildlife Studies - Avian Study Program</p>	<p>BC Hydro will be conducting avian field studies at selected sites within and adjacent to the Peace River valley between Hudson's Hope and the Alberta border. As well as on the south bank in the Jackfish Lake Road area, between Chetwynd and the proposed dam site, and along the existing transmission corridor between the Pine River and Peace Canyon Dam.</p> <p>The objectives of the studies are to gather baseline data on the presence and habitat use of select bird species.</p> <p>Work will include ground based (foot and/or vehicle based) and aerial (helicopter) surveys. Surveys will be completed using a combination of call playbacks, stand watches, point counts and nest searches.</p>	<p>April 2012</p>

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<p>Wildlife Studies – Fisher Study Program</p>	<p>BC Hydro is conducting a study to further the understanding of fisher habitat use and movement patterns in and adjacent to the Peace River Valley. The study area extends from the Peace Canyon Dam to the confluence of the Pine and Peace Rivers on both sides of the Peace River.</p> <p>Fishers are members of the weasel family. They are about 60 cm in length and weigh 3 to 5 kg (6 to 11 lbs).</p> <p>Animals that have been fitted with radio-transmitters will be located monthly, via fixed-wing aircraft flights. Weekly locations will be obtained during ground visits during the breeding season to identify den sites (April through June). Weekly locations will also be obtained all year in some areas.</p> <p>Habitat assessments will be conducted at key fisher locations (e.g., den sites, rest sites) to document characteristics associated with the site. Establishment of trap sites and pre-baiting will occur.</p>	<p>December 2010 – April 2013</p> <p><i>Capture and instrumentation of additional study animals will occur between December 2011 and March 2012.</i></p> <p><i>Tracking of instrumented animals will take place between January 2011 and April 2013.</i></p>
<p>Wildlife Studies – Mule Deer, Moose and Elk Study Program</p>	<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 2010 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>Starting in January 2012, animals will be re-captured using aerial net gunning for collar removal.</p>	<p>Phase 2 monitoring will occur from February 2010 to March 2012.</p> <p>Phase 3, collar removal, will occur from January to April 2012.</p>

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<p>Physical Environment Studies – Geomorphology and Sediment Transport Studies</p>	<p>BC Hydro is continuing geomorphology and sediment transport studies from 2010 and 2011.</p> <p>These studies will characterize baseline river geomorphology, or shape of the river channels, and sediment transport rates at sites along the Peace River and its tributaries. They will be used to assess the potential effects of the Site C project on river geomorphology, and specifically, potential changes in water turbidity, fish habitat and areas of erosion or deposition.</p> <p>Suspended sediment gauging stations, including turbidity sensors anchored to the river bed with a cable running up the river bank to data loggers housed in metal cases, will be re-installed at six of the locations used in 2010 and 2011 (two on the Peace River, and one on the Pine River, Halfway River, Moberly River and Farrell Creek).</p> <p>Installation of equipment at the six sites is planned for April 2012. Once installed, there will be regular site visits between April and October 2012 to collect data, check equipment and perform maintenance.</p> <p>Field crew access will be by boat and foot.</p>	<p>April – October 2012</p> <p><i>Installation of equipment at the six sites will take place in April 2012 (weather dependent).</i></p>
<p>Physical Environment Studies - Climate & Air Quality Monitoring in the Peace River Valley</p>	<p>BC Hydro is collecting climate and air quality data from eight monitoring stations on private and BC Hydro owned land between Hudson’s Hope and Old Fort, south of Fort St. John.</p> <p>Information on various climate parameters will be gathered, including: air temperature, humidity, wind speed and direction, fog frequency and density, and precipitation. Monitoring of particulate matter (mixture of solid particles and liquid droplets in the air) will be conducted at Old Fort and Halfway River.</p> <p>This data will be used to establish baseline conditions and to inform the effects assessment of the Site C project on in-valley climate and air quality in the area.</p> <p>Stations are visited regularly to retrieve data. Access to the monitoring stations is by vehicle and foot.</p>	<p>March and April 2012</p> <p><i>Ongoing monitoring from February 2009.</i></p>

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<p>Fish and Aquatics Studies – Peace, Moberly and Halfway River Fish Movement</p>	<p>Building on the 2010 and 2011 fisheries studies, the 2012 study will further understanding of the movement of fish in the Peace River and its tributaries.</p> <p>The study will document the abundance and timing of movement of fish that move downstream from the Halfway and Moberly rivers into the Peace River, and downstream in the Peace River past the proposed Site C dam site during the open water period. The study will further describe the biological characteristics and relative abundance of fish collected by the rotary screw traps.</p> <p>There will be five rotary screw traps placed in the rivers. Each trap is housed in a pontoon structure approximately 4m by 7m and will be operated from April through October.</p> <p>The study area includes the lower sections of the Halfway and Moberly rivers (one kilometre upstream from the confluence with Peace River), and the Peace River in the immediate vicinity of the Moberly River confluence.</p> <p>Sampling will occur seven days per week alternating three day sampling periods between the Peace, Moberly and Halfway rivers.</p> <p>Access to the sites will be by motorized zodiac.</p>	<p>April – November 2012</p>
<p>Fish and Aquatics Studies – Peace, Moberly and Halfway River Aquatic Productivity and Modelling Study</p>	<p>BC Hydro is continuing an aquatic productivity and modelling study in the Peace River.</p> <p>The purpose of the study is to assess current levels of aquatic productivity and to assist in predicting productivity changes resulting from reservoir creation.</p> <p>Beginning in late April, the study will collect seasonal baseline data to gain an understanding of the current levels of invertebrate, primary production and nutrient dynamics in the system; and run the appropriate predictive models for assessing productivity in the current and post reservoir aquatic environment.</p> <p>The 2012 field sampling plan will include the same sampling sites used during the 2010 and 2011</p>	<p>April – November 2012</p>

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	studies.	
<p>Engineering Investigations – Dam Site Investigations: Site Preparation</p>	<p>BC Hydro is required to remove some trees at the proposed dam site, on the north and south banks of the Peace River, and the central island, to allow safe access for engineering investigations.</p> <p>As part of the site preparation, BC Hydro is required to remove trees along access routes and work areas where site investigations will be completed. In addition to the clearing of trees and in accordance with WorkSafeBC regulations, any identified danger trees (trees identified as prone to falling) will also be removed to ensure a safe work zone.</p> <p>The trees are being removed now to ensure that birds are able to select other nearby trees as nesting sites to avoid the three-month bird nesting window that begins on May 1, 2012.</p> <p>A tree assessment, archaeological overview and an environmental impact assessment will be completed for the access routes and work areas being cleared.</p> <p>Equipment and personnel will be mobilized by road and boat.</p>	<p>April 2012</p>

Note: Access to public and private land may be required in order to complete study work. BC Hydro will obtain permission from land owners and provide notification to BC Hydro leaseholders before entry onto private or leased lands.