

MONTHLY FIELD STUDIES SUMMARY

April 2015

BC Hydro is continuing to conduct environmental and engineering field studies on and around the Peace River between the Williston Reservoir and the Alberta border to inform detailed mitigation and monitoring planning. In December 2014, the Site C project received approval from the provincial government to proceed to construction. Construction is planned to start in summer 2015.

This notice provides a list of field work planned for April 2015. Helicopters may be required for some of this work. BC Hydro will obtain permits, and complete environmental management plans and archaeological assessments as required.

Overview
Environment Studies
<ul style="list-style-type: none"> • Low Level Aircraft Flight Collecting LiDAR Mapping Data • Avian Study Program • Jackfish Lake Moose and Elk Monitoring Program • Climate and Air Quality Monitoring • Fish and Fish Habitat Site Inspections • Peace River Turbidity and Suspended Sediment Monitoring
Engineering Investigations
<ul style="list-style-type: none"> • Instrumentation Monitoring • Distribution Line Site Inspections • Geotechnical Investigations and Soil Resistivity Testing Along Transmission Right of Way • Dam Site Investigations

Current and previous field study activities are available at www.sitecproject.com/news-and-information/field-study-notice and in the Community Consultation offices in Fort St. John and in the Pearkes Centre in Hudson's Hope.

Regular and ongoing BC Hydro work may also be taking place on the Peace River and tributaries related to BC Hydro's Peace River water licence requirements or other operations work.

For further information, please contact:
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April 2015

Study Name	Description	Timing
<p>Environment Studies – Low Level Aircraft Flight Collecting LiDAR Mapping Data</p>	<p>BC Hydro is adding to its existing high-resolution mapping information, by conducting an aerial mapping survey over the following areas: Old Fort, Hudson’s Hope, Peace Island Park, and along the proposed Highway 29 realignment sections.</p> <p>The survey will involve using a low-flying aircraft that will fly slowly over the area to collect LiDAR data, which is used to create high-resolution mapping. The high-resolution mapping will be used in furthering detailed engineering design, project planning and environmental studies. BC Hydro will be notifying local and regional governments in the survey areas.</p> <p>The survey will take place over the course of several days during the months of April and May.</p>	<p>April – May 2015</p>
<p>Environment Studies – Avian Study Program</p>	<p>BC Hydro will be conducting avian surveys along the Peace River between Hudson's Hope and the Alberta border and at natural wetlands in the Local Assessment Area.</p> <p>The objectives of the studies are to gather baseline data on the presence and use of the Peace River and natural wetlands in the Local Assessment Area by waterfowl and kingfisher.</p> <p>Surveys will be conducted using a combination of fixed-wing aircraft and boat.</p>	<p>March – June/July 2015 and September/October 2015</p>
<p>Environment Studies – Jackfish Lake Moose and Elk Monitoring Program</p>	<p>BC Hydro is conducting a moose and elk monitoring study on the south bank of the Peace River, around the Jackfish Lake Road area, between the Peace River and Chetwynd, and in the area of the transmission corridor right-of-way.</p> <p>The first phase of the study took place</p>	<p>December 2012 – April 2015</p>

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	<p>between winter 2012 and spring 2013, and involved the capture and outfitting of 32 moose and elk with GPS collars. An additional 12 animals were captured in the winter of 2014.</p> <p>Phase II involves tracking collared animals for up to two years, and phase III, the final phase, will involve removing the collars from the study animals following the monitoring period. Ground based track surveys will also be conducted to document road crossings.</p> <p>Starting in March 2015, animals will be re-captured using aerial net gunning for collar removal.</p>	<p><i>Phase II, tracking collared animals, occurs between May 2013 and April 2015.</i></p> <p><i>Phase III, collar removal, will occur from March to April 2015.</i></p>
<p>Environment Studies – Climate & Air Quality Monitoring</p>	<p>BC Hydro is collecting climate and air quality data from 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 is being gathered, including: air temperature, humidity, wind speed and direction, fog frequency and density, snow depth and precipitation. Monitoring of particulate matter (mixture of solid particles and liquid droplets in the air) is being conducted at Old Fort, Halfway River and 85th Avenue.</p> <p>These data were used to establish baseline conditions that informed the effects assessment of the Site C project on in-valley climate and air quality in the area. BC Hydro is continuing to collect the data to verify actual changes and to forecast periods of high tributary inflows for construction planning.</p> <p>BC Hydro also monitors climate within the Peace River watershed in order to forecast periods of high tributary inflows for construction planning.</p>	<p>Ongoing monitoring from February 2009.</p>

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Study Name	Description	Timing
	<p>Stations are visited regularly to retrieve data and for maintenance. Access to the monitoring stations is by vehicle, foot and helicopter.</p>	
<p>Environment Studies – Fish and Fish Habitat Site Inspections</p>	<p>BC Hydro will be conducting Peace River fish and fish habitat site investigations within the dam site area and in side channel habitats in the 10 km section downstream.</p> <p>The work will include fisheries personnel walking along river margins and working from jet boats to assess fish habitat conditions, including surveying the ground conditions and taking soil samples.</p>	<p>March – May 2015</p>
<p>Environment Studies – Peace River Turbidity and Suspended Sediment Monitoring</p>	<p>BC Hydro is continuing the collection of baseline turbidity and suspended sediment data in the Peace River to inform the evaluation of potential effects of project construction on water quality as it relates to fish habitat and municipal/industrial water supplies.</p> <p>BC Hydro will continue maintenance and operation of six turbidity monitoring stations located on either river bank both upstream and downstream of the Site C dam site, as well as just upstream of the community of Taylor and at the Spectra water intake.</p> <p>Field crew access will be by boat and foot.</p>	<p>Ongoing monitoring from 2012</p>
<p>Engineering Investigations – Instrumentation Monitoring</p>	<p>BC Hydro is continuing instrumentation monitoring at the proposed dam site and along the reservoir shoreline.</p> <p>There are approximately 80 sites throughout the reservoir area where geotechnical instruments are installed.</p> <p>These sites are visited approximately every three to six months throughout the year for reading and maintenance.</p>	<p>February – October 2015</p>

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	<p>Access to the sites will be by vehicle, foot and helicopter.</p>	
<p>Engineering Investigations – Distribution Line Site Inspections</p>	<p>BC Hydro is continuing with site inspections along existing distribution lines that run from the Fort St. John substation on 81 Avenue to the location of the Site C dam to obtain information for proposed distribution lines upgrades to meet the increased need for electricity in the area of the dam site.</p> <p>The inspections will occur on the distribution lines, which run along the following roads:</p> <ul style="list-style-type: none"> • In the area of 86 Street and 87 Streets, between the Alaska Hwy and 81 Avenue • In the area of 81 Avenue, between 86 Street and 89a Street • 81 Avenue, between 89a Street and 100 Street (265 Rd) • 98 Street, between 81 Avenue and 85 Avenue • 100 Street (265 Rd), between 81 and 85 Avenue • 85 Avenue, between 98 Street and Old Fort Road • Old Fort Road, between 85 Avenue and 240 Road • 240 Road, between Old Fort Road and 269 Road • 269 Road, south of 240 Road to the end of the existing road <p>Engineers will walk the routes of the distribution lines to take photographs of existing overhead distribution lines, assess ground conditions, and gather measurements for determining spacing for poles.</p>	<p>January – October 2015</p>
<p>Engineering Investigations - Geotechnical Investigations and Soil Resistivity</p>	<p>BC Hydro is conducting geotechnical investigations and soil resistivity testing on the south bank of the Peace River starting at Peace Canyon dam, following the existing BC Hydro 138 kV transmission line right-of-way,</p>	<p>March – April 2015</p>

April 2015

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<p>Testing Along Transmission Right of Way</p>	<p>for approximately 77 km to the north-east.</p> <p>The work is to investigate the proposed 500 kV transmission tower foundation locations for the design of the 500 kV transmission lines, which would run from Peace Canyon dam to the substation on the south bank of the Site C dam site.</p> <p>To maximize safety and efficiency, it is anticipated that a low and slow flying helicopter will be used for aerial soil resistivity testing along the transmission line.</p> <p>At select locations, soil resistivity testing will also be carried out to provide information for design of the transmission line grounding system. Resistivity testing measures how much the soil resists the flow of electricity. Work includes inserting a series of 1” diameter metallic test probes into the ground and applying a test current.</p> <p>Visual inspections along the existing transmission line right-of-way will also be conducted to obtain information for proposed VHF installations.</p> <p>BC Hydro will obtain the necessary permissions before assessment work is performed.</p>	
<p>Engineering Investigations – Dam Site Investigations</p>	<p>BC Hydro will be continuing with site inspections or visual surveys on the north and south banks at the dam site, the Moberly River area, along the transmission line right of way, and the Wuthrich and West Pine quarries.</p> <p>These surveys will be conducted periodically. Engineers will be confirming topography, reading instrumentation and taking photographs. Data collected will assist with planning and permit preparations.</p>	<p>January – April 2015</p>

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	<p>Other investigations such as water sampling, potential contaminated site investigations and road maintenance work may be conducted as required.</p> <p>Engineering investigations will be occurring on both private and Crown land.</p> <p>Access to the site will be through existing roads on the north and south bank of the Peace River and boats will be used to transport crews and supplies across the river.</p> <p>Helicopters may also be used periodically to access remote locations.</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. BC Hydro will adhere to seasonal road restrictions.