SITE C: MONTHLY FIELD STUDIES SUMMARY

October 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.

This notice provides a list of field work planned for October 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
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• Traffic Counts
• Fish Sampling
• Forestry Site Inspections
• Heritage Program
• Wetland Mitigation Surveys
• Water Quality Monitoring
• Climate and Air Quality Monitoring
• Peace River Turbidity and Suspended Sediment Monitoring
Engineering Investigations
• Peace Canyon Investigations
• Geotechnical Investigations
• Instrumentation Monitoring
• Distribution Line Site Inspections
• Dam Site Investigations
• Site Inspections

Current and previous field study activities are available at **www.sitecproject.com/news-and-information/field-study-notices** 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:
Kate O'Neil, Community Relations
Office: 250-785-3415

PO Box 2218
Vancouver BC V6B 3W2
Toll-free: 1 877 217 0777
sitec@bchydro.com
www.sitecproject.com

Community Consultation Offices:
9948 100th Avenue
Fort St. John BC V1J 1Y5
Tel: 250 785 3420

Pearkes Centre
10801 Dudley Drive
Hudson's Hope BC V0C 1V0

October 2015

Study Name	Description	Timing
Environment Studies – Traffic Counts	During the months of October and November, BC Hydro will be conducting traffic counts at key intersections in Fort St. John to record current levels of traffic volume to inform mitigation and monitoring programs. Monitoring will take place at different intervals for different intersections. Traffic recording equipment will be mounted on utility poles or signal poles at seven locations to collect vehicle turning data. There will be no disruption to traffic or traffic operations during this activity.	October – November 2015
Environment Studies – Fish Sampling	BC Hydro will be conducting fish sampling on the Peace River between Peace Canyon Dam and Many Islands, Alberta. The work will include fish sampling via boat based electrofisher. Specific activities include fish measurements, tissue samples and tagging. Data will be collected directly from boats. Access to the river will occur from boat launches at Lynx Creek, Halfway River, Peace Island Park, or Many Islands.	August - October 2015
Environment Studies – Forestry Site Inspections	Forestry surveys will be completed on the north and south banks at the dam site and in the Moberly River area. Survey teams comprising two technicians per team will be using topographical equipment and a global positioning system (GPS) to conduct forest engineering (road and clearing unit layout) as well as forest inventory. Survey results will be used to update the forestry inventory and for future permit applications.	September - October 2015

October 2015

Study Name	Description	Timing
	Access will be by helicopter, vehicle and river boat.	
Environment Studies – Heritage Program	BC Hydro will be continuing the Heritage Program in the Site C project area. The archaeological component of the heritage study has been designed in consultation with the B.C. Archaeology Branch and meets the requirements of permits issued under the *Heritage Conservation Act* (HCA). **Heritage Inventory** Heritage assessments will: • Identify, record and evaluate archaeological sites and further investigate previously recorded archaeological sites located within the Site C project area; • Assess potential impacts by the Site C project to these sites; and • Recommend mitigation options. The majority of the work will be shovel tests, as well as visual inspections of areas with good soil exposures, such as freshly tilled fields. **Heritage Mitigation** Heritage mitigation for project-related effects on heritage resources includes field work to record, recover and analyse heritage resources within the Site C project area. The majority of the work will be archaeological excavations by shovels and trowels at each of the selected sites as large as 1 m^3. Excavated soils will be screened and returned to the test hole following inspection. In addition, visual inspections and surface collections of exposed artifacts, for example, in areas such as freshly tilled fields or fossil exposures, will be undertaken.	May – October 2015

October 2015

Study Name	Description	Timing
	For all heritage work, crews will be primarily on foot, with land access by road or boat, supported occasionally by helicopter or all-terrain vehicles.	
Environment Studies – Wetland Mitigation Surveys	BC Hydro will be conducting wetland mitigation surveys throughout the Site C project area to inform mitigation and monitoring programs. These surveys will be conducted on Crown, BC Hydro owned lands, and on private lands once permissions to access have been received. During surveys, the field crew will walk throughout the property recording the physical attributes of the site, recording observations of target species and taking photographs. Additionally, soil characteristics will be sampled using handheld shovels or augers. The field crew will access properties by vehicle, quads and foot.	May – October 2015
Environment Studies – Water Quality Monitoring	BC Hydro is conducting surface water and groundwater monitoring and sampling. Key locations have been selected within the Peace River Valley near the dam site, and between Hudson's Hope and Taylor. Field technicians will be conducting site assessments on Crown and BC Hydro owned lands and on private lands, once permissions to access have been received. The water samples will be submitted to a laboratory for enhanced potability testing. The field technicians will access properties by vehicle and foot; a boat will be required to access locations along the Peace River.	May – December 2015

October 2015

Study Name	Description	Timing
Environment Studies – Climate & Air Quality Monitoring	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. 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. 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. BC Hydro also monitors climate within the Peace River watershed in order to forecast periods of high tributary inflows for construction planning.	Ongoing monitoring from February 2009
Environment Studies – Peace River Turbidity and Suspended Sediment Monitoring	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. 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. Field crew access will be by boat and foot.	Ongoing monitoring from 2012

October 2015

Study Name	Description	Timing
Engineering Investigations – Peace Canyon Site Investigations	BC Hydro is conducting geotechnical and electrical investigations on BC Hydro owned lands in the area adjacent to the Peace Canyon Dam switchgear building. The work is to investigate soil and ground conditions for the expansion of Peace Canyon switchyard works to accommodate the termination of two new 500 kV transmission lines. The work will include: • Using a drill rig and/or backhoe to obtain soil samples through test pits or drill holes; • Conducting seismic reflection surveys to characterize geological conditions; and • Electrical verification work and station electrical grounding study verification and testing, which will include a combination of visual inspections and electrical testing on the ground conditions. Engineers will walk or drive potential access roads to conduct visual surveys of the area to confirm topography and terrain. Work may include taking measurements, testing, surveying and taking photographs. Access to the site will be through existing roads at the location of the Peace Canyon dam.	September - October 2015
Engineering Investigations – Geotechnical Investigations	BC Hydro will be completing geotechnical investigations on the south bank of the dam site and at 85th avenue industrial lands using a backhoe to dig test pits.	September – October 2015

October 2015

Study Name	Description	Timing
Engineering Investigations – Instrumentation Monitoring	BC Hydro is continuing instrumentation monitoring at the dam site and along the reservoir shoreline. There are approximately 80 sites throughout the reservoir area where geotechnical instruments are installed. These sites are visited approximately every three to six months throughout the year for reading and maintenance. Access to the sites will be by vehicle, foot, boat and helicopter.	February – October 2015
Engineering Investigations – Distribution Line Site Inspections	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 distribution lines upgrades to meet the increased need for electricity in the area of the dam site. The inspections will occur on the distribution lines, which run along the following roads: • 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	January – October 2015

October 2015

Study Name	Description	Timing
	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.	
Engineering Investigations – Dam Site Investigations	BC Hydro will be continuing dam site investigations on the north and south banks of the Peace River at the dam site, including resistivity testing, water sampling, and potential contaminated site investigations. Road maintenance work may also be conducted as required. Engineering investigations will be occurring on both private and Crown land. 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 Helicopters may also be used periodically to access remote locations on the south bank of the Peace River.	September - October 2015
Engineering Investigations – Site Inspections	BC Hydro will be continuing with site inspections and visual surveys on the north and south banks of the Peace River at the dam site, the Moberly River area, along the transmission line right-of-way, the Wuthrich and West Pine quarries and the 85th avenue industrial lands. 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.	September – October 2015

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.