SITE C CLEAN ENERGY PROJECT

MONTHLY FIELD STUDIES SUMMARY

September and October 2013

The Site C Clean Energy Project is currently undergoing a cooperative environmental assessment by the Canadian Environmental Assessment Agency (CEA Agency) and the B.C. Environmental Assessment Office (BCEAO), which includes a Joint Review Panel process.

BC Hydro filed its Environmental Impact Statement (EIS) in January 2013 and in August 2013, the CEA Agency and the BCEAO determined that BC Hydro's amended EIS was satisfactory. BCHydro has now entered the Joint Review Panel Stage.

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 planning, prepare project permits, and ensure information is gathered with respect to monitoring programs proposed in the EIS.

This notice provides a list of field work planned for September and October 2013. Helicopters may be required for some of this work.

Overview
Socio-Economic Studies
• Heritage Study Program
Engineering Investigations
• Dam Site Investigations
• Instrumentation Monitoring
Wildlife Studies
• Bat Surveys
• Amphibian Surveys
• Jackfish Lake Moose and Elk Monitoring Program
Physical Environment Studies
• Turbidity Monitoring
• Climate and Air Quality Monitoring

Current and previous field study activities are available at **bchydro.com/sitec** 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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September - October 2013

Study Name	Description	Timing
Socio-Economic Studies – Heritage Study Program	Starting in June and running through October, BC Hydro will be continuing the Heritage Study Program of the Site C project area. The assessment will identify, record and evaluate archaeological, historical and palaeontological sites located within the proposed 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. Crews will be primarily on foot, with land access by road or boat, supported occasionally by helicopter or all-terrain vehicles.	June – October 2013
Engineering Investigations – Dam Site Investigations	BC Hydro is continuing engineering investigations at the proposed dam site area: • **Geotechnical investigations** will include subsurface investigations on the north and south banks using a drill rig to drill holes, and a backhoe to dig test pits. Prior to the start of any drilling, BC Hydro will carry out archaeological and environmental assessments. In most of the drill holes, geotechnical instruments will be installed to monitor ground movement and groundwater levels. • **Geophysical seismic refraction surveys** will be conducted on the north bank and the south bank. Seismic refraction involves creating seismic energy and measuring the time taken for the seismic waves to travel through the ground and return to the surface. • **Soil resistivity measurements** will also be conducted on both the north bank and south banks. A ground resistance test instrument will be used to measure how much the soil resists the flow of electricity. These engineering investigations will be occurring on both private and Crown land. To maximize safety and efficiency, helicopters will be used periodically to access the south bank at the dam site, as well as instrumentation sites along the south bank.	June – October 2013

September - October 2013

Study Name	Description	Timing
Engineering Investigations – Instrumentation Monitoring	BC Hydro is continuing instrumentation monitoring in the proposed dam site area. 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.	September – October 2013
Wildlife Studies – Bat Surveys	BC Hydro is conducting bat surveys to collect additional baseline data on bat presence and use at a proposed quarry at Portage Mountain to advance mitigation planning. Sampling will be conducted by a team of professional biologists. The surveys will focus on gathering data from bats preparing to enter into hibernacula (in August and early September). Data will be collected using bat detectors and night-time observations of potential hibernacula sites. Access to the quarry site will be through a mix of road and foot.	August – September 2013
Wildlife Studies – Amphibian Surveys	BC Hydro is conducting amphibian surveys to collect detailed data that will be used to assist in mitigation planning. Data will be collected along Jackfish Lake Road and the proposed Jackfish Lake Road extension (including an area up to 100m on either side of the road). September site visits will focus on assessing potential mitigation options to maintain hydrology. Sampling will be conducted by two professional biologists. Accessing properties for the field studies will be through a mix of road, quad and foot.	July – September 2013
Wildlife Studies – Jackfish Lake Moose and Elk Monitoring Program	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.	December 2012 – April 2015

September - October 2013

Study Name	Description	Timing
	The first phase of the study took place between winter 2012 and spring 2013, and involved the capture and outfitting of 32 moose and elk with GPS collars. 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. Weather dependent, capturing and collaring (by aerial net guns) for additional tracking will take place in late fall 2013.	*Phase II, tracking collared animals, occurs between May 2013 and April 2015.* *Additional capturing and collaring, will occur in late fall 2013, weather dependent.*
Physical Environment Studies – Turbidity Monitoring	BC Hydro is collecting baseline turbidity data at four monitoring stations located on both sides of the river bank upstream and downstream of the proposed Site C dam site as well as upstream of the town of Taylor and at the Spectra gas plant water intake. Regular site visits will take place between May and December 2013 to collect data, check equipment and perform maintenance. Field crew access will be by boat and foot.	April – December 2013
Physical 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. This summer, BC Hydro plans to install another air quality monitoring station at the 85th Avenue Industrial Lands, for a total of eight monitoring stations within the Peace River Valley. 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) will be 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	Ongoing monitoring from February 2009. *Installation of a new air quality station will take place from mid- August to mid-September 2013.*

September - October 2013

Study Name	Description	Timing
	in the area. BC Hydro is continuing to collect the data to verify actual changes should the project be built 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. Stations are visited regularly to retrieve data and for maintenance. Access to the monitoring stations is by vehicle, foot and helicopter.	

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.