

FIELD STUDIES INFORMATION SHEET

Dam Site Investigations: July – October 2013

The Site C Clean Energy Project is currently undergoing a cooperative environmental assessment by the Canadian Environmental Assessment Agency and the B.C. Environmental Assessment Office, which includes a Joint Review Panel process. BC Hydro filed its Environmental Impact Statement (EIS) in January 2013 as part of this process. 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.

BC Hydro is continuing **geotechnical investigations** this field season. The results of drilling investigations will be used to inform the excavation and structural design for the proposed generating station and spillway. The study 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 both the north bank and south banks. 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. The following surveys will be conducted this field season:

- On the north bank - the surveys will be used to determine the depth of overburden to bedrock at the diversion inlet and outlet portals.
- On the south bank slope - the surveys will be conducted to gain further understanding of the geologic conditions in the area of the generating station and spillway.
- On the south bank terrace - the surveys will gain information on the quality and quantity of granular materials available to be used as construction materials in the construction of the project including earthfill dam, concrete structures and access roads.

Soil resistivity measurements will 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.

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DAM SITE INVESTIGATIONS July – October 2013

- BC Hydro is conducting engineering investigations in the area of the proposed dam site, this work includes:
 - Geotechnical Investigations
 - Geophysical seismic refraction surveys
 - Soil resistivity measurements
 - Adit investigations
- To maximize safety and efficiency, helicopters will be used periodically to access the south bank

Soil resistivity measurements are required for further design of the grounding system for the proposed substation, powerhouse, and spillway structures.

BC Hydro will continue **adit investigations** this season. This work will include drilling and testing within an adit (tunnel) on the south bank to further characterize the engineering properties of the south bank bedrock in the area of the proposed generating station and spillway.

Access to the site will be through existing roads on the north and south bank of the Peace River; boats will be used to transport crews and supplies across the river.

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 for the subsurface investigations, as well as instrumentation sites along the south bank.

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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