

SITE C FIELD WORK FOR 2023

During the construction of Site C, BC Hydro will conduct environmental and engineering field work along the Peace River between the Williston Reservoir and Many Islands in Alberta. This work will inform construction plans and mitigation and monitoring programs.

This notice provides a list of **environmental** and **engineering field work** planned for 2023.

BC Hydro will obtain the required permits, and complete environmental management plans and heritage work. Other work not related to Site C may also take place, as part of BC Hydro's regular operations and Peace River water licence requirements.

To learn more, please visit sitecproject.com, email sitec@bcyhydro.com, or call 1(877) 217-0777.

ENVIRONMENTAL FIELD STUDIES

Climate and air quality monitoring

BC Hydro is collecting real-time climate and air quality data from monitoring stations between Hudson's Hope and Taylor. This work includes biweekly or monthly visits for maintenance.

Water and sediment quality monitoring

BC Hydro is monitoring surface water, groundwater, and sediment quality in the Peace River upstream and downstream of the project. This work assesses the effects of water quality on fish habitat and municipal/industrial water supplies.

Drinking water well monitoring

BC Hydro is monitoring drinking water wells within one kilometre of the future reservoir, with the approval of well owners. This includes periodic site visits to assess water quality and/or quantity, as arranged with well owners.

Assessment of potentially contaminated sites

BC Hydro is identifying sites in or near the project boundaries that, due to their historic use, may have been exposed to soil contaminants. This could include visual inspections, installation of groundwater wells, groundwater elevation measurements, and collection of groundwater and/or soil samples. Property owners will be notified of findings.

Turbidity and suspended sediment monitoring

BC Hydro is collecting data on turbidity in the Peace River. The purpose of this study is to evaluate the potential effects of project construction on water quality, fish habitat, and municipal/industrial water supplies.

Physical habitat monitoring

BC Hydro is monitoring how the construction and operation of the project affects habitat in the Peace River upstream and downstream of the project.

Bull trout spawning assessment

BC Hydro is monitoring the timing, duration, distribution, and intensity of bull trout spawning in known spawning locations in the Halfway River watershed through aerial and ground surveys. Resistivity fish counters and tag detection systems deployed in tributaries of the Halfway River provide additional information. Work occurs annually from July to October.

Fish population indexing survey

BC Hydro is monitoring responses of fish populations to the project by estimating fish population abundance and distribution in representative index sections of the Peace River, Maurice Creek, Farrell Creek, Kobes Creek, Colt Creek, Moberly River, and Halfway River. Surveys take place annually from July to October.

Tracking the movements of fish in the Peace River and its tributaries

BC Hydro is monitoring the movements of radio-tagged fish species (i.e. bull trout, Arctic grayling, rainbow trout, walleye, mountain whitefish and burbot) in the Peace River and its tributaries, from Hudson's Hope to Many Islands, Alberta. The study looks at the movement patterns and distribution of different species and life stages. Monitoring occurs annually from March to November.

Walleye spawning and rearing survey

BC Hydro is monitoring walleye spawning and rearing in the Beatton and Kiskatinaw rivers using a combination of radio telemetry, habitat surveys and juvenile sampling. Surveys will occur in the spring and summer.

Fishway effectiveness

BC Hydro is monitoring the biological effectiveness of the temporary upstream fish passage facility to reduce uncertainties and inform operations. Monitoring will take place during the river diversion phase of construction.

Small fish translocation monitoring

BC Hydro is monitoring small fish species in the Peace River to determine project impacts on their genetic structure, movement, and genetic exchange.

Fish habitat enhancement monitoring program

BC Hydro is monitoring the effectiveness of Peace River fish habitat enhancement measures near the dam site construction area to confirm suitability of habitat for fish during the summer months.

Fish stranding monitoring program

BC Hydro is assessing fish stranding risk in the diversion head pond and the Peace River, downstream of the dam site. This work will take place annually from April to November.

Angling surveys

BC Hydro is monitoring the use of the Peace River for recreational angling and how this may change with the construction and operation of the Project. Surveys will quantify the timing, duration, location of effort, gear type, and species caught in the river to generate spatial and temporal estimates of recreational angling effort, catch, and harvest rates by species.

Waterbird surveys

BC Hydro is conducting waterbird surveys along the Peace River between Hudson's Hope and the Alberta border. Surveys will also be conducted at natural wetlands between the transmission line right-of-way and the Peace River, and areas adjacent to the Peace River between the dam site and the Alberta border. Surveys will be conducted from the ground and air. Trucks, all-terrain vehicles, helicopters, fixed-wing aircraft and boats may be used. Surveys will take place from March to October.

Songbird surveys

BC Hydro will continue to conduct songbird surveys near the reservoir area, the Highway 29 realignment and other areas that may be affected by the project. Surveys will be conducted using a combination of foot, boat, all-terrain vehicle, and truck access. Surveys will take place in the mornings during the songbird breeding season from late May to early July.

Ground-nesting raptor surveys

BC Hydro is continuing to conduct surveys for ground-nesting raptors near the reservoir area, the Highway 29 realignment, and other areas that may be affected by the project. Taking place at dusk from May to July, surveys will involve a combination of foot, boat, all-terrain vehicle, and truck access.

Wetland surveys

BC Hydro is conducting wetland surveys within the reservoir boundary, along the transmission line and at potential mitigation sites. Taking place from May to August, surveys involve a combination of foot and all-terrain vehicle access.

Pre-construction rare plant surveys

BC Hydro is conducting rare plant surveys along the Highway 29 realignments and the transmission line. Taking place from July to September, surveys will involve a combination of foot and all-terrain vehicles.

Rare plant translocation

BC Hydro is continuing its rare plant translocation program. Surveys will be conducted along the Peace River between Hudson's Hope and the Alberta border, and along the Highway 29 alignment and access roads. Material (e.g., seeds, cuttings) needed to grow plants targeted for translocation will be collected for storage and germination. Rare plants may be moved to different locations.

Bald eagle nest surveys

BC Hydro is continuing to conduct bald eagle nest surveys along the Peace River and large lakes next to the project area. The surveys will be conducted using a low-flying helicopter over the Peace River and its major tributaries from Hudson's Hope to the Alberta border. The surveys will take place from February to August.

Fisher den box monitoring

Fisher den boxes have been installed in mature forest on the north and south side of the Peace River to mitigate the loss of denning opportunities due to clearing of the reservoir. Boxes will be monitored to determine if they are being used for fisher reproduction.

Bat roost box monitoring

BC Hydro has installed bat roost boxes to mitigate the removal of summer roosting habitat within the project footprint. Roost boxes were installed around the reservoir outside of the erosion impact line. Boxes will be monitored to evaluate use by bats.

Snake artificial hibernacula monitoring

BC Hydro has installed artificial hibernacula for snakes to mitigate the loss of natural hibernating habitat. These dens will be monitored to determine their use by snakes.

Nest box monitoring

BC Hydro has installed nest boxes for a range of cavity-nesting species to mitigate the removal of trees. Boxes will be monitored to determine their use by cavity-nesting birds.

Heritage work

Throughout the project area, BC Hydro is conducting heritage work including archaeological impact assessments, systematic data recovery, and other mitigations. As construction continues, surface inspections, post ground disturbance, or concurrent monitoring of protected archaeological sites will take place. This includes responding to any unexpected heritage discoveries (chance finds) during construction.

Agricultural monitoring

BC Hydro is conducting agricultural monitoring programs in the area around the future reservoir for five years pre and post reservoir creation. The monitoring programs include wildlife crop damage, crop drying, and groundwater elevation changes.

Traffic monitoring

BC Hydro is continuing to collect data on traffic volumes and turns at selected intersections around Chetwynd, Hudson's Hope, and Fort St. John to evaluate potential effects of the project on traffic. This work includes annual and quarterly roadside data collection.

Wuthrich quarry investigations

BC Hydro will conduct field work in the Wuthrich quarry area to investigate potential for further material sourcing. This could include limited geotechnical investigations, survey work and environmental assessments. Investigations will take place during spring and early summer of 2021.

Geotechnical drilling

BC Hydro will continue to maintain geotechnical instruments. Infrastructure to automate readings of geotechnical instruments will be installed. Additional boreholes will only be drilled if necessary.

Forestry engineering

Forestry engineering work is required as part of reservoir clearing and will take place along the banks of the Peace River upstream from the dam site. This may include timber cruising, road and clearing boundary layout, ribbon hanging and other field work.

Site inspections

BC Hydro is continuing site inspections and visual surveys on the banks of the Peace River at the dam site, on the slopes of the Peace River valley, around the Moberly River area, along the transmission line right-of-way and at the 85th Avenue Industrial Lands, Portage Mountain, Wuthrich and West Pine quarries. Site inspections will be conducted periodically. Engineers will be confirming topography, reading instruments, and taking photographs. Data collected will assist with planning and permit preparations.

Greenhouse gas emissions

BC Hydro completed a pre-impoundment greenhouse gas emissions assessment in the future reservoir area. The preliminary sampling completed in October 2022 will be used in the development of the greenhouse gas emission monitoring program.

ENGINEERING FIELD STUDIES

Reservoir distribution line relocation

Engineering investigations may be carried out to support the removal and decommissioning of the distribution line along the highway. Investigations may include site inspections, geotechnical work, survey work and archaeological work.

Portage program

The seasonal portage program will transport non-motorized vessels (up to 20') by road past the dam site. The program operates between the Halfway River boat launch and the Peace Island Park boat launch from May 15 to September 15, from 7 a.m. to 7 p.m. daily.

Portage Mountain reclamation

BC Hydro will conduct field work in the Portage Mountain quarry area to determine the scope of work for reclamation. This could include limited geotechnical investigations, survey work and environmental assessments. Investigations will take place during spring and early summer of 2022.

Note: Access to public and private land may be required in order to complete field work. BC Hydro will request permission from property owners and provide notification to BC Hydro leaseholders before entry onto private or leased lands. BC Hydro will adhere to seasonal road restrictions.