

Notice of Site C Construction Activities: October to December 2019

As part of our engagement with communities, BC Hydro provides regular updates and information on construction activities. This letter describes the work planned from October 1 to December 31, 2019.

For the upcoming period, construction will continue to focus on:

- Progression of earthworks at the dam site and excavation of the two diversion tunnels
- Construction of the Site C substation
- Upgrades and maintenance for access roads connecting to the transmission line corridor
- Transmission line construction including site preparation, helical pile and concrete foundations, and tower assembly and installation
- Construction of the Highway 29 realignment at Cache Creek West, the embankment portion of Cache Creek East, and the road and bridge at Halfway River
- Construction may begin on the embankment at Lynx Creek East
- Portage Mountain Quarry operations and improvements to access roads
- Road maintenance and road construction in areas of the future reservoir
- Habitat construction and installation
- Old Fort Road improvements
- Possible archaeological data recovery and investigation on Highway 29, along access roads to the future reservoir, and within the future reservoir area
- Clearing activities, including burning, vegetation removal and log hauling, in the middle and eastern reservoir areas and the transmission line corridor
- Telecommunication equipment upgrades at various telecommunication and substation sites

For all activities described in this letter, the [necessary approvals](#) will have been obtained before the work begins. Geotechnical site investigations, air quality monitoring, heritage and other field studies are ongoing. BC Hydro will continue to provide [annual field study notices](#) of these activities.

Please use caution when hunting, shooting, or setting traps near the Site C transmission line corridor for the safety of public and workers in the area.

Dam site area

- **Access roads:** Crews will continue to maintain dam site access roads and existing south bank resource roads, including petroleum development roads.
- **Main civil works:** Construction activities will continue. This includes:
 - Excavation and material relocation on the north and south banks for the core trenches and dam foundations
 - Construction of the south bank drainage tunnel
 - Construction of the diversion tunnels and diversion intake structure

- In-river work and dredging
- Aggregate production
- Concrete batching, foundation preparation and construction of the spillway buttress
- Riprap placement
- Temporary upstream fishway construction
- Temporary debris boom anchors will be installed and access roads constructed
- Earthfill dam preparation and other civil works
- Shipments of aggregate and rip rap to site
- **Generating station and spillways (GSS):**
 - Concrete will continue to be placed for the powerhouse intake areas
 - Installation of the main service bay roof waterproofing will continue
 - The main parts for the two powerhouse cranes have been delivered and installed in the main service bay
 - Sections of the steel penstocks will continue to be delivered to site, where they will be assembled and encased in concrete on the intakes
- **Turbines and generators:** The turbines and generators contractor will continue to mobilize crews and equipment to their work area on the south bank. The contractor will move material to the dam site by rail or road. They will assemble equipment in their on-site manufacturing facility until installation in the powerhouse, which is expected to begin in mid-2020. Some turbine components are expected to be delivered to Area 27 near the end of 2019.
- **Site C substation:** The substation contractor will continue with site preparation works, foundation construction, control building fit out, and the assembly and installation of substation equipment. Concrete and aggregates will be transported to site.

Public roads and highways

- **Old Fort Road improvements:** Construction will continue on the chain-up area on Old Fort Road.
- **Highway 29**
 - Possible archaeological data recovery and investigations will occur.
 - **Cache Creek West:** Construction will continue on this section of highway. This includes grading, earthworks and drainage.
 - **Cache Creek East:** Construction may begin at the embankment.
 - **Lynx Creek:** Construction may begin on the embankment at Lynx Creek East. Geotechnical investigations will continue.
 - **Halfway River:** Construction will begin on the road and bridge.
 - **Western segments:** Geotechnical investigations will continue.

Peace River/reservoir

- **Fish habitat enhancement project:** Fish habitat enhancement will continue.
- **Wetland restoration:** Wetland restoration will occur near Clayhurst. This includes excavation, construction of earthen dams, and installation of water control structures.
- **Wildlife program:** Installation and monitoring of wildlife structures will take place. Unoccupied eagles' nests will be removed, in advance of river diversion.

- **Archaeology:** Possible archaeological data recovery and site investigations along access roads and within the future reservoir area.
- **Reservoir clearing:**
 - Clearing activities and road construction will occur in the following areas:
 - North and south banks of the eastern reservoir
 - Middle reservoir between Cache Creek and Halfway River
 - Waste wood management: When conditions allow, waste wood will be burned in the following areas:
 - North and south banks of the eastern reservoir
 - Middle reservoir between Cache Creek and Halfway River
 - Moberly River and Cache Creek drainage areas
 - Merchantable trees will be transported to local mills
 - Road maintenance may occur on existing roads in the reservoir area, including North Monias Road, Peace View Borrow Road and portions of Old Hope Road

Hudson's Hope

- **Site investigations:** Geotechnical studies may occur to support the design of the shoreline protection project.

Transmission works

- **Access road maintenance:** Road maintenance and upgrades to access roads will occur, to provide safe access to the transmission line right-of-way. Work will include erosion and sediment control.
- **Access road construction:** Access roads may be built within portions of the transmission line right-of way from the western part of the Moberly River.
- **Equipment upgrades:** Telecommunication equipment will be upgraded at various telecommunication and substation sites.
- **Transmission line construction:** Foundations and towers are being assembled and installed. Geotechnical investigations may continue.
- **Investigations for relocation of transmission line crossing at Halfway River:** Archaeological impact studies and geotechnical investigations will occur for the relocation of an existing transmission line that crosses the Halfway River.
- **Transmission line construction:** Two new 138kV transmission lines will be constructed for connection to the Site C substation.
- **Clearing:** Clearing, vegetation removal and log hauling along the transmission line corridor.

Production and transport of materials

- **Wuthrich Quarry and West Pine Quarry:** Riprap will be produced. Blasting will occur as part of this work. Riprap will be hauled from West Pine Quarry along Highway 29 for highway construction.
- **Portage Mountain Quarry:** Operations have begun at Portage Mountain Quarry. Access road upgrades will occur.

- **85th Avenue Industrial Lands:** Work will continue at the Industrial Lands. This includes the preparation of offices, a parking lot, and laydown/stockpile areas. Excavation will begin.
- **Conveyor belt system:** Operation of the conveyor will begin, transporting till materials from the 85th Avenue Industrial lands to the dam site.

Environmental Assessment Certificate

Environmental Assessment Certificate #E14-02 (EAC) for the Project consists of Schedule A, the project description, and Schedule B, the conditions under which the project must be constructed and operated. If BC Hydro wishes to make a change to either Schedule A or Schedule B of the EAC, we are required to submit a written request to the Environmental Assessment Office, which then consults with regulatory agencies, Indigenous groups and/or the public on the request and issues a written decision.

To date, BC Hydro has requested and been granted four amendments to the EAC. These are:

- Amendment No. 1 – regarding design changes to the generating station and spillway
- Amendment No. 2 – regarding design changes to the Halfway River Bridge within the Halfway River Highway 29 realignment
- Amendment No. 3 – regarding the use of West Pine Quarry, in addition to the already approved Portage Mountain Quarry, as a source of quarry and excavated material for the construction of the Highway 29 realignment, Hudson’s Hope shoreline protection, and areas along the reservoir requiring protection during reservoir filling
- Amendment 4 – regarding the selective use of mechanical clearing in riparian zones during reservoir clearing when it is unsafe to undertake manual clearing

BC Hydro has applied for two additional amendments regarding proposed revisions to the Highway 29 realignment at Cache Creek and the expansion of the worker accommodation within the dam site area. Decisions on these amendment requests are anticipated in October or November 2019.

Water Licences and Leaves to Commence Construction

BC Hydro holds Water Licences for the diversion and use of water, the storage of water, and for the temporary and permanent fish passage facilities. During the course of construction, we will apply for a series of Leaves to Commence Construction (LCCs) under the Water Licences in order to construct particular project works or components of project works. Construction-related activities under the LCCs are also independently reviewed by the Independent Engineer and the Independent Environmental Monitor as required by the Water Licences.

To date, BC Hydro has obtained LCCs for:

- Initial works
- Relocated Surplus Excavation Material (RSEM) storage areas
- North and south bank excavations
- South bank stage 1 cofferdam
- Clearing of the eastern reservoir
- North bank cofferdams and diversion tunnel works

- Roller-compacted concrete (RCC) buttress foundation preparation and RCC placement
- Geotechnical investigations for the Hudson's Hope Shoreline Protection and Halfway River debris boom
- Earthfill dam excavation, foundation preparation, fill placement and approach channel foundation preparation and placement
- Generating station civil works and spillway civil works
- Construction of the temporary fish passage facility
- Stage 2 cofferdams and river diversion
- Water licences for temporary and permanent fish passage facilities
- Construction of the temporary fish passage facility
- Middle reservoir clearing

Notice of completed activities

The following work, described in previous notifications, is complete or is anticipated to be complete by the date of issuance of this letter:

- Worker accommodation camp upgrade
- Peace Canyon substation upgrades
- Construction of till conveyor system
- Invasive species rinse station

What to expect

During this time period, the following can be expected:

- There will be project-related traffic on public roads leading to the dam site, transmission corridor, reservoir and Highway 29, as we continue to haul materials, equipment, rock, and timber. This will include increased industrial traffic on resource roads and public roads from Chetwynd leading to the site on the south bank.
- Day, night and weekend shifts are anticipated for the duration of the project.
- Traffic control will be intermittently in place for construction and investigation activities along Highway 29. This may cause minor traffic delays. Visit drivebc.ca for the latest traffic updates.
- Noise will occur near the construction areas.
- Noise and vibration will result from blasting and other works in the quarries. Hauling may occur at night.
- There will be construction occurring around the Peace River at the dam site.
- Public safety signs and beacons have been installed on both banks of the Peace River, on both sides of the dam site, to mark the active construction area. Until further notice, boaters will be able to pass through the dam site, but will not have shoreline access in the dam site construction area. A security boat will be monitoring boat traffic.
- We are monitoring air quality in the Site C project area. This data is being added to the Ministry of Environment's [B.C. Air Quality Monitoring Data](#). The Ministry uses this data to report on air quality trends. In the event of poor air quality, the Ministry will release air

quality advisories through a notification list. This notification list currently includes the regional media, various public and private sector offices, as well as members of the public. If you are interested in being part of this notification list, please email sitec@bchydro.com.

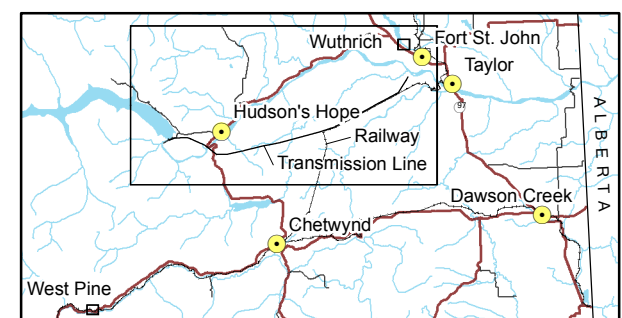
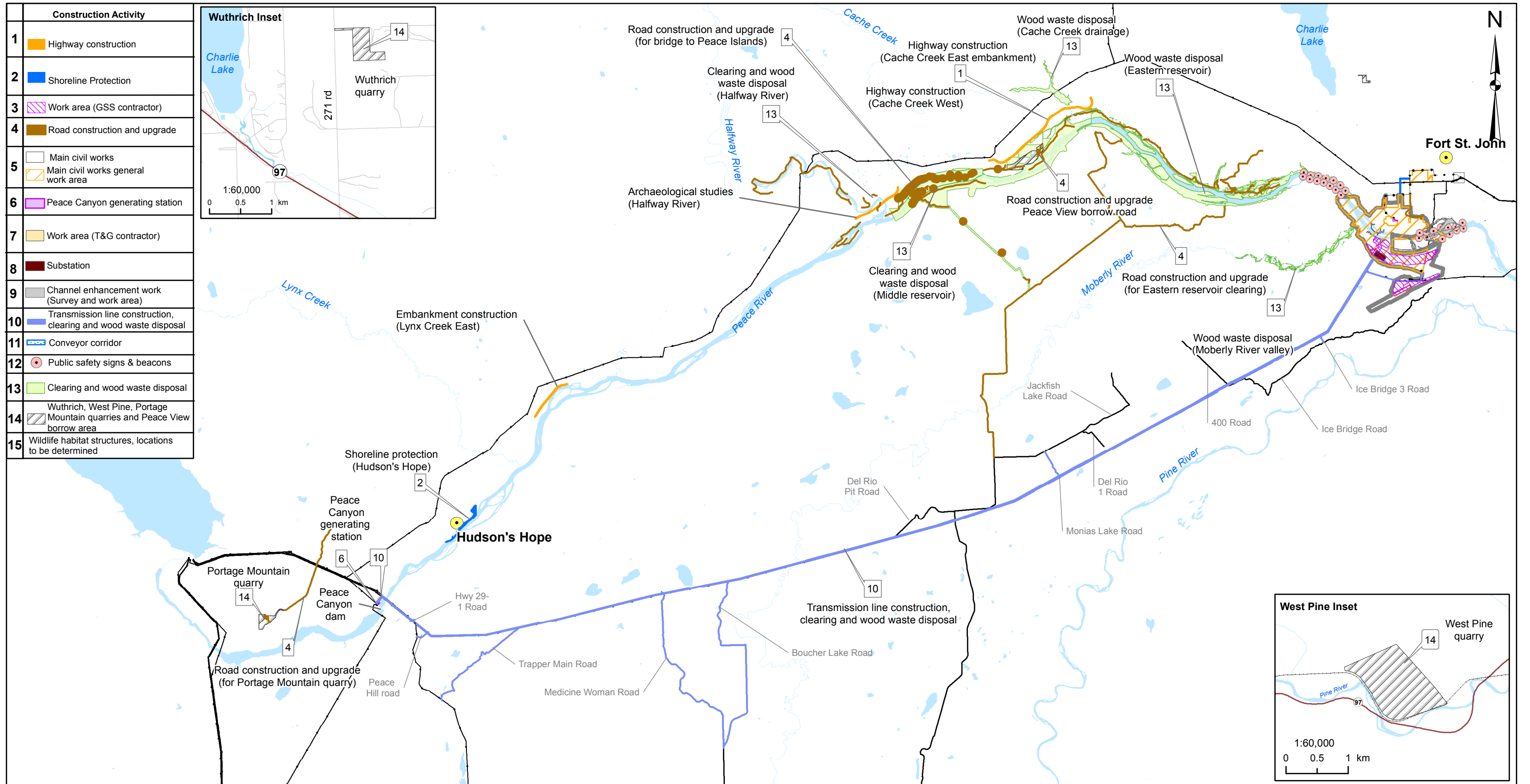
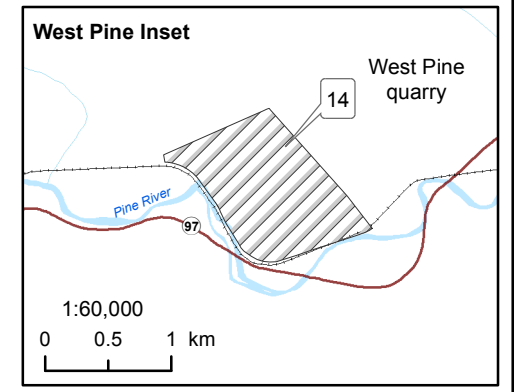
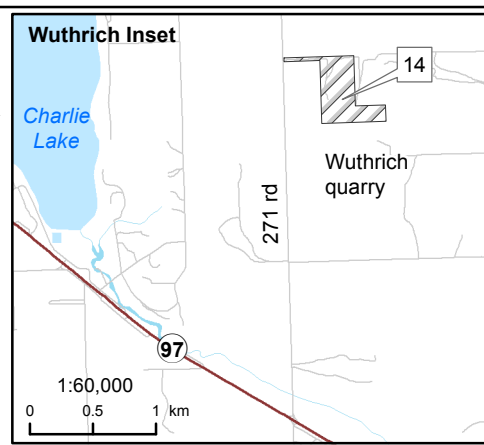
Learn more

BC Hydro is committed to providing you with information about Site C construction activities and has established several ways that you can learn more about the project.

The [Site C website](#) is the main source of important project information, such as:

- News and information about the project
- Planned construction activities and a general project schedule
- Information about job and business opportunities
- Information for regional and Indigenous communities
- A document library and other information pages, containing:
 - Information sheets
 - Mitigation and monitoring plans
 - Annual reports
 - Permits and authorizations received from regulatory agencies
 - Reports from the environmental assessment, and consultation and engagement activities
 - Project planning and evaluation reports
 - Environment and socio-economic reports
 - Engineering and technical reports
 - Employment statistics
 - Quarterly Progress Reports to the BCUC

Construction Activity	
1	Highway construction
2	Shoreline Protection
3	Work area (GSS contractor)
4	Road construction and upgrade
5	Main civil works Main civil works general work area
6	Peace Canyon generating station
7	Work area (T&G contractor)
8	Substation
9	Channel enhancement work (Survey and work area)
10	Transmission line construction, clearing and wood waste disposal
11	Conveyor corridor
12	Public safety signs & beacons
13	Clearing and wood waste disposal
14	Wuthrich, West Pine, Portage Mountain quarries and Peace View borrow area
15	Wildlife habitat structures, locations to be determined



Map Notes:
 1. Datum: NAD83
 2. Projection: UTM Zone 10N
 3. Base Data: Province of B.C.

The construction activities presented in this map are indicative only and may change as a result of procurement and project planning advancements.

1:250,000 0 10 km

BC Hydro

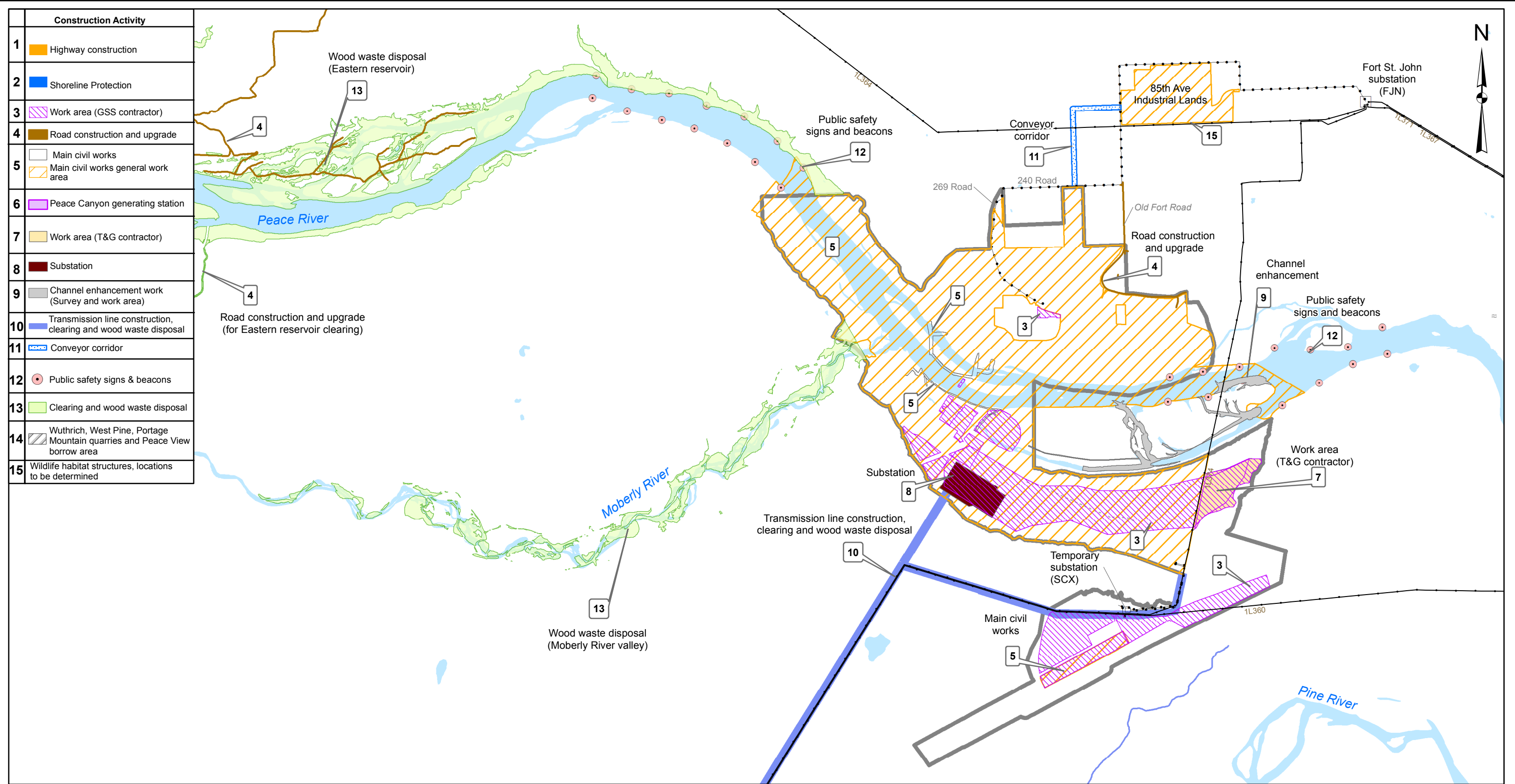
**Construction Activities
October - December 2019**

Date	August 28, 2019	DWG NO	1016-N11-00601-1	R 0
------	-----------------	--------	------------------	-----

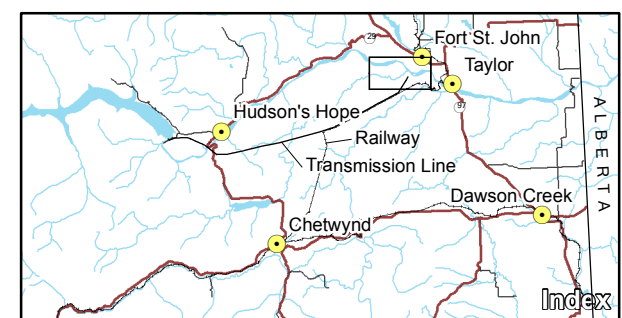
Construction of the Site C Clean Energy Project is subject to required regulatory and permitting approvals.

Path: X:\AcGIS\Projects\First Nations\Construction_Activities_1016_N11-00601-1.mxd

© BC Hydro 2019 - all rights reserved. This map is for information purposes only and accuracy is not guaranteed.



Construction Activity	
1	Highway construction
2	Shoreline Protection
3	Work area (GSS contractor)
4	Road construction and upgrade
5	Main civil works Main civil works general work area
6	Peace Canyon generating station
7	Work area (T&G contractor)
8	Substation
9	Channel enhancement work (Survey and work area)
10	Transmission line construction, clearing and wood waste disposal
11	Conveyor corridor
12	Public safety signs & beacons
13	Clearing and wood waste disposal
14	Wuthrich, West Pine, Portage Mountain quarries and Peace View borrow area
15	Wildlife habitat structures, locations to be determined



Map Notes:
 1. Datum: NAD83
 2. Projection: UTM Zone 10N
 3. Base Data: Province of B.C.

The construction activities presented in this map are indicative only and may change as a result of procurement and project planning advancements.

1:50,000 0 2 km

BC Hydro

**Construction Activities
October - December 2019**

Date	August 28, 2019	DWG NO	1016-N11-00601-2	R 0
------	-----------------	--------	------------------	-----

Construction of the Site C Clean Energy Project is subject to required regulatory and permitting approvals.

Path: X:\AcGIS\Projects\First_Nations\Construction_Activities_1016_N11-00601-2.mxd