

SITE C PROJECT CONSTRUCTION

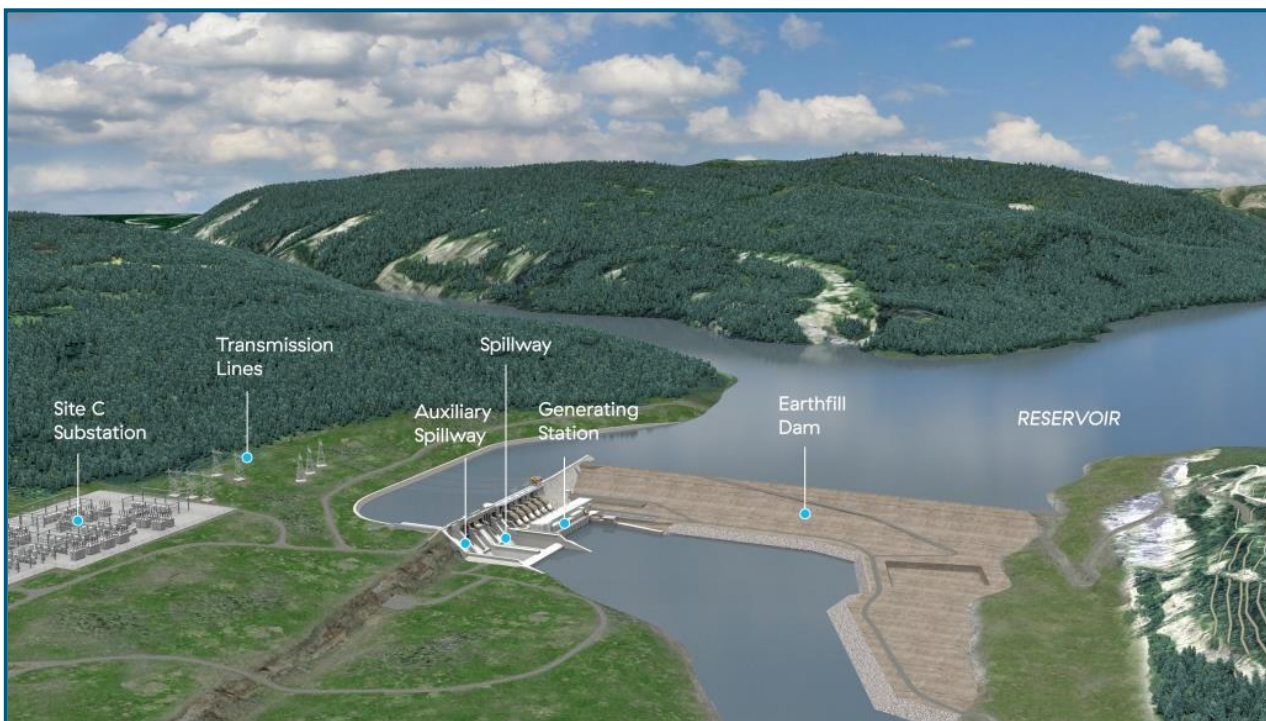
DAM, GENERATING STATION AND SPILLWAYS

The most significant components of the Site C project will be the construction of the dam, generating station and spillways on the south bank of the Peace River. This work will include the following activities:

- Constructing temporary cofferdams and two diversion tunnels
- Building an 800-metre-long roller-compacted concrete (RCC) buttress
- Constructing an earthfill dam approximately 1,050 metres long and 60 metres high above the riverbed
- Building the generating station and spillways
- Installing six 183-megawatt generating units

Anticipated timeline

2016 to 2024



Steps to building the Site C dam

Early works

Construction of the dam, generating station and spillways started with the clearing of the dam site area and the construction of access roads. A temporary bridge was built for construction access across the river and slope flattening is underway to stabilize the steep north bank above the dam site.

Cofferdams

Cofferdams are being constructed on the north and south banks to confine the river to its main channel, allowing for construction activities on each side of the river to begin on dry land.

Roller-compacted concrete (RCC) buttress

Following completion of the south bank cofferdam, work began on a large RCC buttress that will support the valley wall and provide the foundation for the generating station and spillways — improving stability and

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providing seismic protection. Once complete, the buttress will be approximately 800 metres in length, up to 70 metres high and made up of approximately two million cubic metres of RCC that was placed, compacted and cured in successive horizontal layers. The aggregate materials (rock) used for creating the RCC and conventional-vibrated concrete (CVC) mixtures are sourced from the dam site and other areas. The RCC is created at the on-site batch plant.

Earthfill dam, generating station and spillways

Construction of the north and south portions of the earthfill dam and the generating station will begin when the RCC buttress is complete

Larger upstream and downstream cofferdams will be built to redirect the river through two river diversion tunnels, allowing a dry construction area to build the central portion of the earthfill dam.

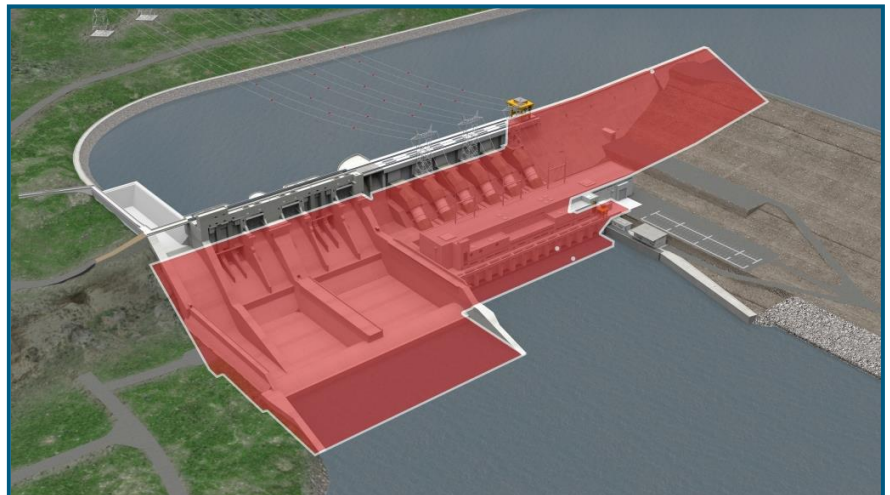
The construction of spillways will allow the passage of extra large volumes of water from the reservoir into the river channel downstream. In addition, an auxiliary spillway will allow water to pass safely in the unlikely event of power loss.

An approach channel will be constructed to bring water from the reservoir to the penstocks. The penstocks will lead to six turbines and generators that will be installed and connected to the substation once the generating station is built.

Once the earthfill dam, power intakes and spillways are completed the reservoir will be filled over a period of approximately three months.

What to expect

- Some noise, vibration and dust will occur in the vicinity of the dam site. There will also be increased vehicle traffic accessing the project site.
- BC Hydro and its contractors will be implementing mitigation measures to reduce construction-related impacts on residents, such as dust-control measures and traffic management.
- To ensure public and worker safety during construction, the Peace River at the Site C dam site will be permanently closed to boaters when in-river construction progresses to a point that requires the closure.



The south valley wall under the dam, the generating station and ancillary structures, and the spillways will be reinforced with a long concrete buttress to improve foundation stability and seismic protection.