

Site C dam safety

BC Hydro's top priority is the safety of the public and their employees, including the safe operation and maintenance of all our dams across the province.

Site C is built and maintained in accordance with the highest international safety practices. It meets the Canadian Dam Association's highest level of design guidelines. It's also designed to withstand very rare, extreme earthquakes and floods.

With a dam safety engineer and two dam safety technologists based in Fort St. John, Site C's surveillance and instrumentation align with international best practices.

Important Site C safety features

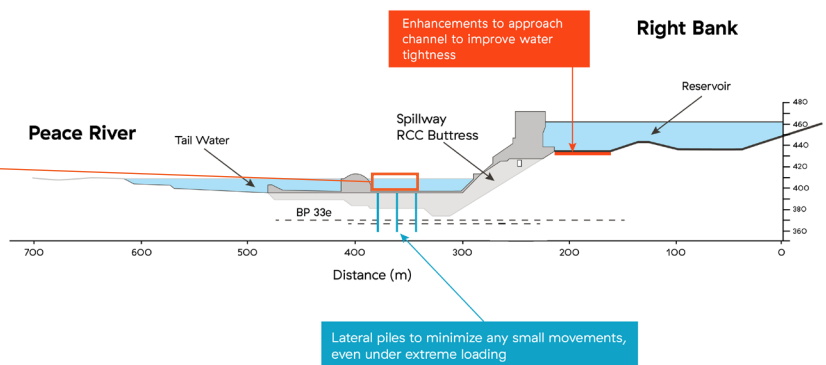
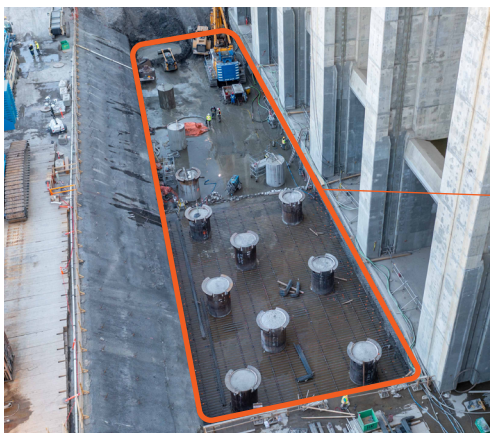
L-SHAPED DESIGN

- A long concrete buttress under the spillway and generating station improves stability and seismic performance.
- A large-capacity gated spillway and an overflow auxiliary spillway ensure flows can safely pass, even if the plant were to lose power.

RIGHT BANK FOUNDATION ENHANCEMENTS

Part of the design for the right bank enhancement is to extend the foundation deeper into the bedrock below. We've installed 96 concrete-filled steel piles that are 46 metres long and two metres in diameter, which tie in the dam buttress structure to the stable rock below to prevent any potential movement.

We've also enhanced the approach channel liner.



BC Hydro's dam safety program is globally recognized

BC Hydro is recognized worldwide as a leader in the safe operation and management of dams. We've been safely operating and maintaining dams across B.C. more than 60 years. We currently manage and operate 86 dams at 42 locations throughout the province.

Our rigorous dam safety program meets or exceeds the requirements of the B.C. Dam Safety Regulation and is based on guidelines published by the Canadian Dam Association.

We manage the safety of our facilities through a comprehensive program that includes a 24/7 automated monitoring system with alarm notification. Thousands of instruments collect and report dam performance data.

The dams are visually checked weekly, and more extensively inspected by qualified dam safety engineers twice a year.

BC Hydro submits annual reports to the Province of B.C. and audits of our dam safety program are completed every five years. Each dam undergoes an independent safety review every seven to 10 years.

BC Hydro is well-prepared for a large earthquake

Our comprehensive emergency management program ensures we can respond to major events such as earthquakes, including the response coordination with all levels of government.

We use the B.C. Emergency Management System to manage our response to emergencies. We conduct drills to validate and reinforce procedures internally, as well as conduct table-top and role-play sessions with emergency management agencies.

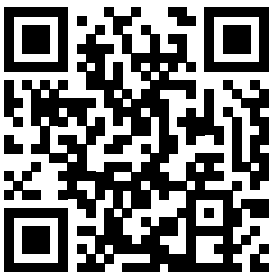
BC Hydro's dams are built to withstand high-magnitude earthquakes.

Our seismic experts closely follow national and international developments in fracking research. In addition, we work closely with the BC Energy Regulator to monitor fracking and any associated seismic activity around our dams to ensure we protect our infrastructure and manage any potential risk from fracking.



Learn more

Site C project



Dam safety & BC Hydro

