



W.A.C. Bennett Dam and the Williston Reservoir. The road across the top of the dam was re-paved this summer with new no-post barriers installed.

Peace River System Dam Safety Projects Update – December 2018

The W.A.C. Bennett Dam, located west of Hudson’s Hope, is our largest dam, holding back 74 trillion litres of water (when full) in Williston Reservoir, Canada’s second largest reservoir. The G.M. Shrum powerhouse at the dam, along with the nearby Peace Canyon Dam and Generating Station, produce, in most years, more than one-third of the electricity for the province.

To ensure continued safe and reliable power at these dams, a number of projects are underway, or will start soon. These projects are part of our continued investment of over \$2 billion per year to upgrade our aging assets and build new infrastructure to ensure our system is ready to support British Columbia’s growing population and economy.

W.A.C. Bennett Dam Spillway Sluice Gates Recommissioning

There are nine sluiceways and slide gates at the W.A.C. Bennett Dam spillway; three sets of three. They are below the three spillway operating gates. They are about 50 years old and haven’t been used since the late 1980s.

We’re currently determining the future requirement for these gates and may rehabilitate and/or decommission some or all of them. Project alternatives being evaluated include:

- Decommissioning all nine sluiceways and slide gates
- Rehabilitation of some of the sluiceways and slide gates and decommissioning of the others

After a leading alternative is confirmed, we’ll continue to develop the design, planning and procurement activities in preparation for construction, which is tentatively proposed for 2021.

What is a spillway?

A spillway is a structure built into a dam to enable the release of water from the reservoir into the water course below the dam. A spillway gate is a moveable structure that retains water in the reservoir when desired, but can be moved to release water from the reservoir when required.

What is a sluiceway and a slide gate?

A sluiceway is a water passage, and a slide gate is a barrier which can be opened and closed to control the flow of water.

W.A.C. Bennett Dam Visitor Centre Water Supply Project

Water supply for the visitor centre historically comes from a pond retained by the small Durack Brook Dam. The dam is aging and needs to be rehabilitated or removed.

Various water supply options were considered and a water well appeared to be the most economical solution. A test water well was drilled near the centre in 2017. Tests in 2018 showed that this well will meet the water needs of the centre and adjacent facilities. Design work for a pump house and distribution piping is in progress and we envision building new infrastructure in the summer of 2019. A separate project will then be initiated to remove the Durack Brook Dam.

W.A.C. Bennett Dam Spillway Reliability Upgrade

We'll be upgrading the electromechanical systems of the spillway gates at the W.A.C. Bennett Dam to increase the overall reliability of the gates. The spillway consists of three spillway bays with radial gates. These gates control the discharge of water from Williston Reservoir to help maintain water levels and manage dam safety.

Detailed design work is underway and construction is scheduled to begin in February 2019.



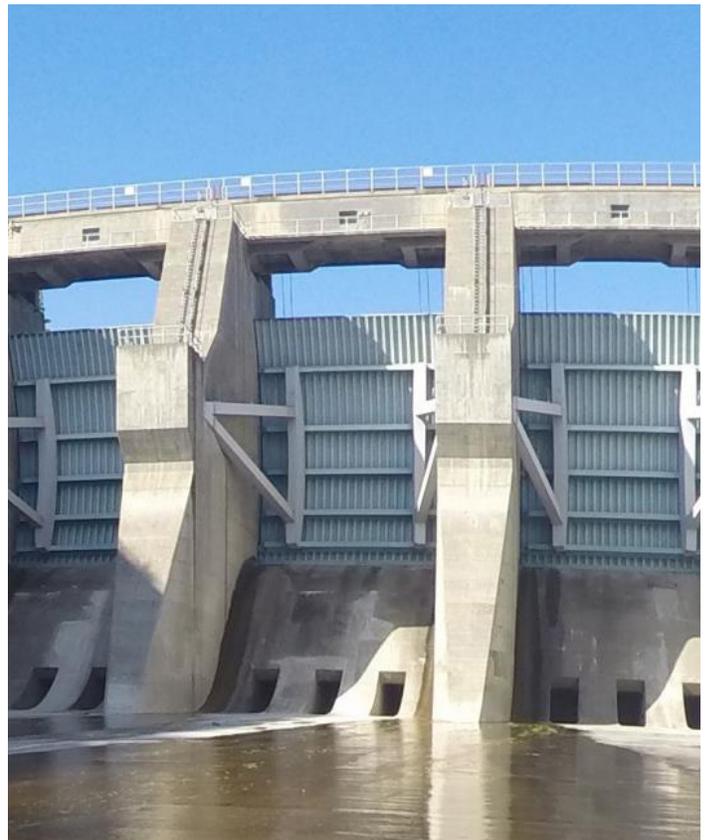
W.A.C. Bennett Dam spillway during original construction in the 1960s, showing the upstream side of the three large spillway operating gates, as well as the nine sluiceways located underneath.

Did you know?

Our dam safety program is responsible for managing the safety of the BC Hydro structures that retain the reservoirs and control the passage of water.

This is undertaken by professional and technical staff responsible for all aspects of dam safety including surveillance, investigations, risk analysis, project initiation, and regulatory compliance and reporting.

The evaluation of the safety of our dams also helps to form the foundation of our long-term capital plan to maintain and upgrade our facilities when required.



W.A.C. Bennett Dam spillway chute showing the downstream side of the three large spillway operating gates, as well as the downstream end of the nine sluiceways.

Looking for Site C Project Information?

Please visit: sitecproject.com

Please contact BC Hydro Community Relations at 250 561 4858 or bob.gammer@bchydro.com, or BC Hydro Indigenous Relations at 604 528 3290 or anne.pigott@bchydro.com for more information on the above projects.