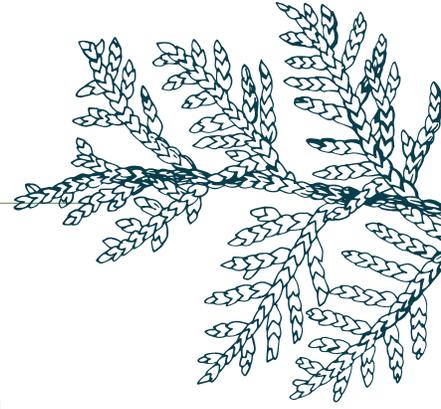


Freshwater Storage Sites and Dams



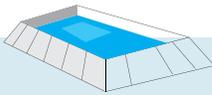
Water use in energy resource activities

Water is used in various energy resource activities such as hydraulic fracturing, drilling, washing machinery, dust control, pressure testing of pipes and freezing ice roads.



Licence and Authorization

Energy resource companies need to have a water licence and relevant dam authorizations for diverting, storing and using freshwater in their activities.



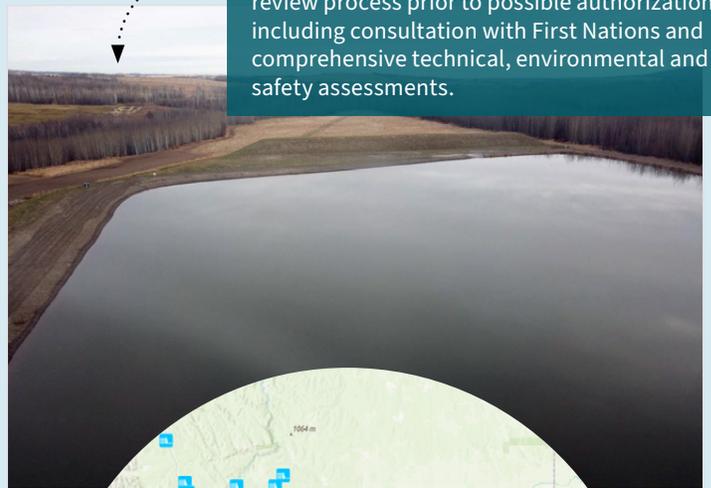
Dams

Dams are a type of storage structure that, by regulatory definition, hold water from a stream and/or aquifer in a “live” state; that is, above the natural surface grade of the surrounding area, typically by way of earthen embankments (water storage structures that store water completely below the natural surface grade are referred to as dugouts). Dams with live storage greater than 10,000m³ are regulated under the Dam Safety Regulation (DSR) of the Water Sustainability Act, which specifies requirements and best practices for all aspects of dam design, construction, operation, maintenance, decommissioning and removal. (“Minor dams,” i.e., those with less than 10,000m³ capacity, are exempt from the DSR but are still subject to our authorization and oversight). There are currently about 50 DSR-regulated dams overseen by the BCER, all in the northeast region of the province.

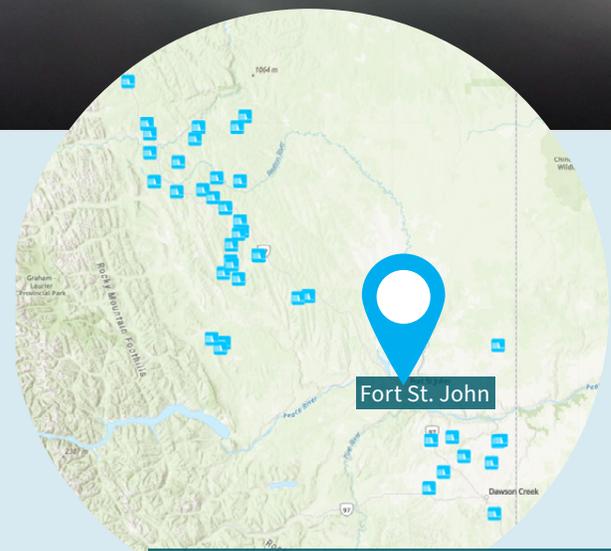


How does the BCER ensure safety of the dams?

The BCER has several designated dam safety officers and an engineer who protect public safety by ensuring the dams are adequately designed, built and operated under effective Operational, Maintenance and Surveillance manuals (OMS) and Dam Emergency Plans (DEP), and verifying the owners have been conducting the required safety activities, including annual inspection and surveillance of their dams. The dam safety officers also provide education and awareness training to the dam owners on their responsibilities, conduct visits to the dam sites regularly to identify any instances of non-compliance and issue orders and directives as necessary to correct deficiencies.



An energy resource activity dam in the Dawson Creek area. Dam applications undergo a rigorous review process prior to possible authorization, including consultation with First Nations and comprehensive technical, environmental and safety assessments.



A detail from BCER's [Regulated and Active Dams map](#), which displays locations, ownership, construction year and live storage volume of the current regulated and active energy resource dams in B.C.