



INFORMATION SHEET

APPLICATION OF THE DAM SAFETY REGULATION

Based on British Columbia Dam Safety Regulation 44/2000 and revised to include amendments up to B.C. Reg. 163/2011 (November 30, 2011) – *Revisions in red italics*.

INTRODUCTION

The Dam Safety Regulation was passed into law as Regulation 44/2000 under the *Water Act* effective February 11, 2000, and *amended as B.C. Reg. 108/2011 (June 9, 2011) and subsequently as B.C. Reg. 163/2011 (September 12, 2011 with enactments on November 30, 2011)*.

The objective of the Regulation is to mitigate loss of life and damage to property and the environment from a dam breach by requiring dam owners to inspect their own dams, undertake proper maintenance on them, and ensure that these dams meet ongoing engineering standards.

WHO IT APPLIES TO

The Dam Safety Regulation applies to all dam owners (i.e., the person who holds a current water licence for the dam, see Section 1 of the Regulation for a full definition of dam owner) whose dams are:

- 1 metre or more in height and capable of impounding a volume of water greater than 1,000,000 m³,
- 2.5 metres or more in height and capable of impounding a volume of water greater than 30,000 m³,
- 7.5 metres or more in height and capable of impounding any volume of water, or
- classified as *significant, high, very high or extreme* downstream consequence (see Schedule 1 of the Regulation).

WATER ACT REQUIREMENTS

The *Water Act* has authority over dams (considered works) and holds dam owners liable

for any damage caused by the construction, operation or failure of their dam.

Under the *Water Act*, dam owners are responsible for:

- obtaining a water licence and complying with its terms and conditions, and
- maintaining historical records of all observations, inspections, maintenance items, instrumentation readings, etc.

CLASSIFICATION SYSTEM

The obligations of a dam owner under the Regulation depend on the potential downstream consequences of failure of the dam (see Schedule 1 of the Regulation). The dam owners are responsible for estimating these consequences subject to verification by the Dam Safety Officer. *Schedule 1 has been amended by replacing the 4 consequence classifications with the 5 classifications adopted by the Canadian Dam Association (CDA) in their 2007 Guidelines to ensure that the requirements of the regulation and the CDA Guidelines are consistent. The classifications will all be converted in the provincial dam registry, see the [BC Dam Safety Program](#) web site for details.*

REGULATION REQUIREMENTS

Dam owners must satisfy all ongoing requirements and may also need to meet special and/or additional requirements:

1. Ongoing Requirements
The ongoing requirements include:
 - safe day to day operation and

- maintenance of the dam,
- regular inspections of the dam (i.e., site surveillance, formal inspections, recording instrumentation data, and testing mechanical components),
- preparing, reviewing and updating the operation, maintenance and surveillance plan and the emergency preparedness plan (*except low consequence dams*),
- performing dam safety reviews (high, very high and *extreme* consequence dams only),
- reporting all significant findings resulting from inspections and/or dam safety reviews to the Dam Safety Officer, and
- *annually review the consequence classification and report any changes.*

2. Special Requirements

The dam owner must undertake the following special requirements:

- obtain authorization when alternations, improvements or replacements to all or any part of their dam are considered,
- notify the Dam Safety Officer and get authorization prior to the removal, decommissioning or abandoning a dam,
- *prepare a plan in response to any safety hazard,*
- operate their dam in a manner, and initiate remedial actions, that will safeguard the public and dam in response to hazardous conditions at the dam,
- *obtain acceptance from the Dam Safety Officer for revisions to the operation, maintenance and surveillance and emergency preparedness plan, or*
- *prepare and erect signage at all dams located on Crown Land (except low consequence dams) notifying passersby to report any problems to the dam owner or emergency response authorities (effective November 30, 2011).*

3. Additional Requirements

Dam owners must undertake the following if *required by provincial authorities* under the regulation:

- install any instrumentation necessary to adequately monitor the performance of a dam,
- obtain an expert's opinion on the design, construction and analysis of the dam,
- obtain the opinion of an appropriate specialist such as hydraulic, hydrological, geological, geotechnical, mechanical or structural engineer or related professional on various questions, and
- submit additional information, including recorded data, on the dam, reservoir, downstream area, or watershed upstream of the dam.

ROLE OF THE RESPONSIBLE MINISTRY

The Comptroller of Water Rights instituted the Provincial Dam Safety Program in 1967. The program's goal is to set design, construction, maintenance, and surveillance standards, and assist dam owners in meeting these standards.

Dam Safety Officers located in each region and in Victoria protect public safety by auditing and monitoring the activities of dam owners and taking enforcement/compliance action when necessary.

The Dam Safety Regulation is an important component of the Provincial Dam Safety Program objective to minimize the impact of floods and dam failures.

MORE INFORMATION

More information on dam safety can be obtained from the Responsible Ministry by contacting:

Dam Safety Section
Water Management Branch
PO Box 9340 Stn Prov Govt
Victoria BC V8W 9M1

Or Dam Safety Website:

http://www.env.gov.bc.ca/wsd/public_safety/dam_safety/index.html

The Canadian Dam Associations' Dam Safety Guidelines and website at <http://www.cda.ca/>