



# DAM SAFETY AUDIT PROGRAM

## AUDIT CHECK SHEET

Dam : \_\_\_\_\_

Date : \_\_\_\_\_

Failure Consequence Rating:	E	VH	H	S	L
Failure Probability Rating :	Lrg	Mod	Sm	VSm	

Risk Level : (see over)				
1	2	3	4	5

**This Audit is not an Inspection of the dam. The dam owner is responsible for dam surveillance and inspections. This is an audit of the dam owner's dam safety program.**

### DAM SAFETY REGULATION REQUIREMENTS

	Yes	No	N/A	Follow Up?
Consequence Rating Appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alterations or Hazards occurred recently?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Owner Reported any recent alterations or hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Plan Prepared?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Plan Submitted and Updated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OMS Plan Prepared?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OMS Plan Submitted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reservoir Operation as per OMS Manual?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance Suitable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surveillance Suitable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annual Inspection Suitable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sign posted on dam? (Crown land only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dam Safety Review Status Acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments & Site Observations: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Dam Owner / agent present for audit? Y  N  Copy given to Dam Owner / agent? Y  N

Printed Name of Dam Safety Officer	Signature	Date
Printed Name of Dam Owner / agent	Signature	Date

## FAILURE PROBABILITY RATING GUIDELINES

RATING	GENERAL GUIDELINES FOR ALLOCATING RATINGS (NOTE: Apply highest rating, only one bullet required)
LARGE	<ul style="list-style-type: none"> <li>Uncorrected design, construction, structural and/or operational deficiencies that could <i>clearly</i> lead to uncontrolled reservoir release. If the dam owner is actively working on an <i>approved</i> project to correct the deficiency the rating can be reduced to MODERATE.</li> <li>Owner exhibits reluctance to operate in a safe and timely manner, or is incapable of doing so; all unlicensed dams are allocated this rating.</li> </ul>
MODERATE	<ul style="list-style-type: none"> <li>Uncorrected design, construction, structural and/or operational deficiencies that could <i>potentially</i> lead to uncontrolled reservoir release.</li> <li>Owner exhibits reluctance to undertake and report on annual inspection, or is incapable of doing so.</li> <li>Design and operation lacks redundancy, e.g., no back-up power for electrical gates.</li> </ul>
SMALL	<ul style="list-style-type: none"> <li>Design and/or performance deficiencies may exist, but are actively monitored and are not expected to significantly increase failure potential over the near term.</li> <li>Design and operation exhibits redundancy</li> </ul>
VERY SMALL	<ul style="list-style-type: none"> <li>Dams that are breached, partially breached, reservoir drained or otherwise safeguarded.</li> <li>Failure modes analysis indicates very low probability of failure (e.g., robust concrete gravity dam).</li> </ul>

### RISK LEVEL CHART \*

Failure Probability Rating	Failure Consequence Rating <sup>1</sup>				
	Extreme	Very High	High	Significant	Low <sup>2</sup>
Large	1	1	1	2	3
Moderate	2	2	2	3	4
Small	3	3	4	4	5
Very Small	3	4	4	5	5

- 1) ALERT (immediate attention required):**  
Enhanced monitoring / consultants involved / repairs ASAP / may restrict reservoir operation / EPP reviewed / CWR or RWM notified, possible Order
- 2) CAUTION (considerable work to do):**  
Increased monitoring / planning for rehab / may modify reservoir operation / EPP reviewed / may request submission of Inspection Report (perhaps weekly), OMS, or early DSR / CWR or RWM made aware of situation
- 3) STABLE:**  
Regular owner inspections plus monitoring operation under peak loading / rehab hazardous conditions / may request submission of Annual Inspection Report, OMS, or early DSR / may audit on an increased frequency
- 4) NO CONCERNS:**  
Included in regular audit program to identify any changes / normal operation
- 5) EFFECTUAL (significant and low consequence dams ONLY):**  
Significant consequence dams included in regular audit program to monitor failure consequence only / normal operation

**\*Note:** The risk level chart is only a guide. If the Dam Safety Officer deem the risk level of the dam to be different than that prescribed by the risk level chart, the rationale for the variation should be provided by the Dam Safety Officer in the Comments & Site Observations field on the first page.

<sup>1</sup> Schedule 1, Dam Safety Regulation, BC Reg. 108/2011

<sup>2</sup> Low consequence dams are not included in the audit program at this time.