Formal Annual Inspection

It is recommended that you customize this form to fit your dam.

Pre-Inspection Information

Name of Dam: _____ Inspection Date: _____
Current Weather: _____ Weather During Last Week: _____
Name of Creek, Stream, River: _____ Water Licence #: _____
Dam Owner: _____
Address: _____
City, Province: _____ Postal Code: _____
Name of Principle Contact Person: _____
Principle Contact's Bus Phone: _____ Principle Contact's Cell Phone: _____
Principle Contact's Email: _____

Person Responsible for this Inspection: _____ Phone #: _____
Other Inspection Participants: _____

Date of Last Annual Inspection: _____ Was last Annual Inspection Report reviewed?: _____
Were dam deficiences identified that required follow-up? _____
Date of Last Dam Safety Report(DSR): _____ Was last DSR Report reviewed? _____
Were recommendations from the last DSR Report implemented? _____
Repairs or modifications since last formal inspection? (where, when) _____
Failures/Incidents/Breaches since last formal inspection? _____
Has all the maintenance done in the last year been documented?_____
Are the Works Currently Fully Operational? _____

Dam Information

Type of Dam: _____ Max. Height of Dam: _____
Are dam materials well known? _____ Are foundation conditions well known? _____
Are dam construction details well known? _____ Construction Date: _____

Failure Consequence Classification

Circle current Failure Consequence Classification (based on BC Dam Safety Regulation)

Low Significant High VeryHigh Extreme

Hydrology

Drainage Area Size: _____ Reservoir Area: _____
Inflow Design Flood (IDF): _____ m^3/s IDF Return Period: _____
1000 yr Flood: _____ m^3/s (If available): _____
Probable Maximum Flood: _____ m^3/s (If available): _____
Spillway Crest Elevation: _____ Spillway Width: _____
Spillway Capacity: _____ Net Freeboard (while spillway passing IDF): _____
Gross Freeboard (@ full supply level): _____ Freeboard (at time of visit): _____
Reservoir Storage Volume: _____ Licenced Storage Volume: _____

Emergency Preparedness Plan (EPP)

Has the emergency contact information in the EPP been updated this year and distributed as required? _____

Other Key Information

Person Responsible for Formal Inspection: _____ **Date:** _____

	Required Action					Photo #s
	None	Monitor	Maintenance	Repair	N / A	

Embankment Dam

1. Upstream Slope

VEGETATION Yes/No ☐ ☐ ☐ ☐ ☐ _____

Type _____ Location _____

Recommendations: _____

SLOPE PROTECTION ☐ ☐ ☐ ☐ ☐ _____

Type None/Grass/Riprap/Other

Notes _____

EROSION Yes/No Location _____ ☐ ☐ ☐ ☐ ☐ _____

Type Wave/Runoff/Unknown

Length _____ Width _____

Notes _____

INSTABILITIES ☐ ☐ ☐ ☐ ☐ _____

Slides Yes/No/Could not Inspect

Length _____ Width _____ Location _____

Notes/Causes _____

Cracks Yes/No Transverse/Longitudinal/Other ☐ ☐ ☐ ☐ ☐ _____

Quantity _____ Length _____ Width _____

Location _____

Notes/Causes _____

Bulges/Depressions/Hummocky Yes/No ☐ ☐ ☐ ☐ ☐ _____

Size _____ Height _____ Depth _____

Location _____

Notes/Causes _____

OTHER ☐ ☐ ☐ ☐ ☐ _____

Burrows, Ruts, Other Concerns

Location _____

Notes/Causes _____

2. Crest

ACCESS ☐ ☐ ☐ ☐ ☐ _____

Is there public access to the crest? (Yes/No)

Is the crest marked or signed? (Yes/No)

Is vehicle access to the crest restricted? (Yes/No)

VEGETATION

Trees Yes/No ☐ ☐ ☐ ☐ ☐ _____

Location _____

Notes _____

Brush None/Sparse/Dense ☐ ☐ ☐ ☐ ☐ _____

Location _____

Notes _____

Ground Cover Bare/Grass/Other ☐ ☐ ☐ ☐ ☐ _____

Quantity (bare/sparse/adequate/dense)

Appearance (too tall/too short/good)

Notes _____

EROSION Yes/No Location _____ ☐ ☐ ☐ ☐ ☐ _____

Type Wave/Runoff/Unknown

Length _____ Width _____

Notes _____

SETTLEMENT ☐ ☐ ☐ ☐ ☐ _____

Location _____

Notes/Causes _____

	Required Action					Photo #s
	None	Monitor	Maintenance	Repair	N / A	
INSTABILITIES	☐	☐	☐	☐	☐	_____
Cracks Transverse/Longitudinal/Other						
Quantity _____ Length _____ Width _____						
Location _____						
Notes/Causes _____						
OTHER						
Burrows, Ruts, Other Concerns	☐	☐	☐	☐	☐	_____
Location _____						
Notes/Causes _____						

3. Downstream Slope

VEGETATION	☐	☐	☐	☐	☐	_____
Trees Yes/No						
Location _____						
Notes _____						
Brush None/Sparse/Dense	☐	☐	☐	☐	☐	_____
Location _____						
Notes _____						
Ground Cover Bare/Grass/Other	☐	☐	☐	☐	☐	_____
Notes _____						
SLOPE PROTECTION	☐	☐	☐	☐	☐	_____
Type None/Grass/Other						
Notes _____						
EROSION Yes/No Location _____	☐	☐	☐	☐	☐	_____
Location _____						
Notes _____						
INSTABILITIES	☐	☐	☐	☐	☐	_____
Slides Length _____ Width _____ Location _____						
Notes/Causes _____						
Cracks Yes/No Transverse/Longitudinal/Other	☐	☐	☐	☐	☐	_____
Quantity _____ Length _____ Width _____						
Location _____						
Notes/Causes _____						
Bulges/Depressions/Hummocky Yes/No	☐	☐	☐	☐	☐	_____
Size _____ Height _____ Depth _____						
Location _____						
Notes/Causes _____						
OTHER						
Burrows, Ruts, Other Concerns	☐	☐	☐	☐	☐	_____
Location _____						
Notes/Causes _____						
SEEPAGE	☐	☐	☐	☐	☐	_____
Wet Area/Flow/Boil/Sinkhole						
Flow Rate _____						
Location _____						
Aquatic Vegetation Yes/No						
Rust Colored Deposits Yes/No						
Sediment in Flow Yes/No						
Other _____						
Notes/Causes _____						
EMBANKMENT DRAINS Yes/No	☐	☐	☐	☐	☐	_____
Type _____						
Flow rate _____ Size _____ Number _____						
Location _____						
Notes _____						
MONITORING INSTRUMENTATION CONDITION	☐	☐	☐	☐	☐	_____
☐ None found ☐ Piezometers ☐ Weir ☐ Flume						
Notes _____						

	Required Action					Photo #s
	None	Monitor	Maintenance	Repair	N / A	

Concrete Dam

1. Upstream Side and Crest

ALIGNMENT/OFFSETS ☐ ☐ ☐ ☐ ☐ _____

Movement at Joints? _____

Settlement? _____

JOINT FILLER _____ ☐ ☐ ☐ ☐ ☐ _____

Any Loss? _____

Vegetation? _____

UNUSUAL CRACKS ☐ ☐ ☐ ☐ ☐ _____

New? _____

Efflorescence? _____

Displacement? _____

DETERIORATION ☐ ☐ ☐ ☐ ☐ _____

Concrete Breakdown? _____ Diagnosis: _____

Erosion _____

Scour _____

2. Downstream Side

ALIGNMENT/OFFSETS ☐ ☐ ☐ ☐ ☐ _____

Movement at Joints? _____

Settlement? _____

JOINT FILLER ☐ ☐ ☐ ☐ ☐ _____

Any Loss? _____

Vegetation? _____

UNUSUAL CRACKS ☐ ☐ ☐ ☐ ☐ _____

New? _____ Type? _____

Efflorescence? _____

Displacement? _____

DETERIORATION ☐ ☐ ☐ ☐ ☐ _____

Concrete Breakdown? _____ Diagnosis: _____

Erosion _____

Scour _____

UNUSUAL LEAKAGE ☐ ☐ ☐ ☐ ☐ _____

Increase? _____ Clear? _____

Weir? _____ Flow Estimate? _____

DRAINS ☐ ☐ ☐ ☐ ☐ _____

Flow? _____ Calcite Build-up? _____

	Required Action					Photo #s
	None	Monitor	Maintenance	Repair	N / A	

Spillway

GENERAL CONDITIONS

Type _____ Gated? - Yes/No

Notes _____

1. Spillway Crest or Control Section

OBSTRUCTION

Debris Yes/No

Location _____

Notes _____

Vegetation None/Sparse/Dense

Location _____

Notes _____

Other (beaver activity, trash rack problems, etc.)

_____

LOG BOOM Yes/No Reguired? Yes/No

Condition: Logs _____ Connections _____ Anchors _____

Notes _____

SPILLWAY CREST MATERIALS

Condition _____

Notes _____

SPILLWAY GATES Yes/No _____ Type: _____

Condition _____

Notes _____

OTHER SPILLWAY CREST PROBLEMS

Damage _____

Location _____

Notes/Cause _____

2. Spillway Conveyance Section: Channel, Chute or Conduit

OPEN CHANNEL CROSS SECTION _____

CHANNEL OBSTRUCTION _____

SPILLWAY CONVEYANCE MATERIALS _____

OTHER SPILLWAY CONVEYANCE PROBLEMS _____

Damage _____

Location _____

Notes/Cause _____

3. Energy-Dissipating or Terminal Section

EROSION CONTROL STRUCTURE

Type Endwall/Headwall/Plunge pool/impact basin/Baffled chute/Rock lined channel/Other/None

_____

Notes _____

Required Action Photo #s

None | Monitor | Maintenance | Repair | N / A

Low Level Outlet

GENERAL

Gate Type _____ ☐ None

ACCESS TO VALVE/GATE Under all circumstances? Yes/No

☐ Not accessible ☐ from shore ☐ Walkway ☐ By boat ☐ Other

Notes _____

Walkway Condition _____

LOW LEVEL OUTLET COMPONENTS

Valve Control Device

☐ Yes ☐ None ☐ No Stem ☐ Damaged stem ☐ Other

Other/Notes _____

Operational under all conditions?

☐ Yes ☐ No ☐ Poorly

Tested Annually? Yes/No Tested as per OMS manual? Yes/No

Notes _____

Valve / Gate

Location _____

Condition _____

Leakage ☐ Yes ☐ No

Flow Rate _____

Outlet Pipe

☐ Metal ☐ Plastic ☐ Concrete ☐ Other _____

Diameter _____

Condition _____

Outlet Obstruction (note vegetation, sediment blockage, etc.)

Notes _____

OUTLET EROSION CONTROL STRUCTURE

Type _____

Concrete Condition _____

Outlet Area Seepage

Description _____

Flow Estimate _____

Location _____

Undermining

Location _____

Notes/Cause: _____

Downstream Channel _____

Free Draining? _____

Blockages or Potential Blockages? _____

Erosion Control? Rip-Rap? _____

	Required Action					Photo #s
	None	Monitor	Maintenance	Repair	N / A	

Other Key Information

Is site access adequate for safe operation, maintenance and surveillance? _____
Instrumentation adequate for site conditions? _____
Are there concerns about reservoir slope stability? _____
Any there other concerns in the watershed that could impact the dam? _____
Operational Constraints that impact Dam Safety? _____
Are the required Public Safety signs in place (for dams on Crown land)? _____
Other comments on Public Safety: _____
Should new development in the downstream inundation zone initiate a review of the Failure Consequence Classification?:
Yes/no? _____Comments: _____

Maintenance

In the last year have the spillway gates been exercised and tested in accordance with the OMS? _____
If so, when and by whom? _____
In the last year has the low level outlet gate been exercised and tested in accordance with the OMS? _____
If so, when and by whom? _____
Is the instrumentation well maintained? _____

NOTES:

Required Action					Photo #s
None	Monitor	Maintenance	Repair	N / A	

SKETCH OF ISSUES: