

**Formal Annual Inspection
Pre-Inspection Information**

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

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 Principal Contact Person: _____
Principal Contact's Bus Phone: _____ Principal Contact's Cell Phone: _____
Principal 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 deficiencies 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): _____ m³/s IDF Return Period: _____
1000 yr Flood: _____ m³/s (If available): _____
Probable Maximum Flood: _____ m³/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: _____

Dam Emergency Plan (DEP)

Has the emergency contact information in the DEP 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>Type</u>	_____	Location	_____				
	Recommendations: _____						
SLOPE PROTECTION		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>Type</u>	None/Grass/Riprap/Other _____						
	Notes _____						
EROSION	Yes/No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>Type</u>	Wave/Runoff/Unknown _____						
	Length	_____	Width	_____			
	Notes _____						
INSTABILITIES		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Slides	Yes/No/Could not Inspect _____						
	Length	_____	Width	_____	Location	_____	
	Notes/Causes _____						
Cracks	Yes/No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Transverse/Longitudinal/Other _____						
	Quantity	_____	Length	_____	Width	_____	
	Location _____						
	Notes/Causes _____						
Bulges/Depressions/Hummocky	Yes/No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Size	_____	Height	_____	Depth	_____	
	Location _____						
	Notes/Causes _____						
OTHER		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Burrows, Ruts, Other Concerns	_____						
	Location _____						
	Notes/Causes _____						

2. Crest

ACCESS		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>Trees</u>	Yes/No _____						
	Location _____						
	Notes _____						
<u>Brush</u>	None/Sparse/Dense _____						
	Location _____						
	Notes _____						
<u>Ground Cover</u>	Bare/Grass/Other _____						
	Quantity (bare/sparse/adequate/dense) _____						
	Appearance (too tall/too short/good) _____						
	Notes _____						
EROSION	Yes/No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
<u>Type</u>	Wave/Runoff/Unknown _____						
	Length	_____	Width	_____			
	Notes _____						
SETTLEMENT		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Location _____						
	Notes/Causes _____						

Required Action Photo #s

INSTABILITIES

Cracks Transverse/Longitudinal/Other
 Quantity _____ Length _____ Width _____
 Location _____
 Notes/Causes _____

None	Monitor	Maintenance	Repair	N / A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OTHER

Burrows, Ruts, Other Concerns
 Location _____
 Notes/Causes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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3. Downstream Slope

VEGETATION

Trees Yes/No _____
 Location _____
 Notes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Brush None/Sparse/Dense _____
 Location _____
 Notes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Ground Cover Bare/Grass/Other _____
 Notes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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SLOPE PROTECTION

Type None/Grass/Other _____
 Notes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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EROSION

Yes/No _____ Location _____
 Location _____
 Notes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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INSTABILITIES

Slides Length _____ Width _____ Location _____
 Notes/Causes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Cracks Yes/No Transverse/Longitudinal/Other
 Quantity _____ Length _____ Width _____
 Location _____
 Notes/Causes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Bulges/Depressions/Hummocky Yes/No _____
 Size _____ Height _____ Depth _____
 Location _____
 Notes/Causes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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OTHER

Burrows, Ruts, Other Concerns
 Location _____
 Notes/Causes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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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 _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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EMBANKMENT DRAINS

Yes/No _____
 Type _____
 Flow rate _____ Size _____ Number _____
 Location _____
 Notes _____

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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MONITORING INSTRUMENTATION CONDITION

None found Piezometers Weir Flume

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Notes _____

Required Action **Photo #s**

None Monitor Maintenance Repair N / A

Concrete Dam
1. Upstream Side and Crest

ALIGNMENT/OFFSETS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Movement at Joints? _____						
Settlement? _____						
JOINT FILLER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Any Loss? _____						
Vegetation? _____						
UNUSUAL CRACKS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
New? _____						
Efflorescence? _____						
Displacement? _____						
DETERIORATION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Concrete Breakdown? _____ Diagnosis: _____						
Erosion _____						
Scour _____						

2. Downstream Side

ALIGNMENT/OFFSETS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Movement at Joints? _____						
Settlement? _____						
JOINT FILLER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Any Loss? _____						
Vegetation? _____						
UNUSUAL CRACKS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
New? _____ Type? _____						
Efflorescence? _____						
Displacement? _____						
DETERIORATION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Concrete Breakdown? _____ Diagnosis: _____						
Erosion _____						
Scour _____						
UNUSUAL LEAKAGE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Increase? _____ Clear? _____						
Weir? _____ Flow Estimate? _____						
DRAINS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
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 _____ Required? 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 _____

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	Photo #s
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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 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: