# Washington state Department of Ecology logo.Dam Owner Annual Inspection Form Earthen Dams

## Project Data

|  |  |
| --- | --- |
| Dam Name: | |
| County: | State Dam No. (if known) |
| Owner Name: | |
| Owner Address: | Telephone No.:  E-mail address: |
| Inspected by: | |
| Inspection Date: | Weather: |

## Directions

* During inspection, check all boxes that apply. Fill in the overall condition of each structure and what actions will be taken to remedy any issues found. Mail or email a copy of the completed form to the Dam Safety Office.
* Mark approximate location of any problems on plan of dam footprint on page 6 and attach photos on page 7
* For concrete structures associated with your dam, check the “concrete in poor condition” box if you notice signs of settlement, misalignments, heaving, offset joints, cracks, or exposed reinforcements and make a note of what you have found in the line for overall condition.

## Reservoir Data

Reservoir Level at time of inspection       feet below dam crest

Reservoir Outflow at time of inspection       cfs or       gpm

Condition of Dam (embankment, abutments, foundation)

**Dam crest** Check all that apply:

low areas

horizontal misalignment

surface cracking

ruts

animal burrows

trees

brush

Overall condition:

Actions needed:

**Upstream face** Check all that apply:

slumps

slides

scarps

sinkholes

slope protection

wave erosion

animal burrows

trees

brush

Overall condition:

Actions needed:

Condition of Dam Cont. (embankment, abutments, foundation)

### Downstream face and toe Check all that apply:

wet or soft areas

slumps

slides

scarps

sinkholes

change in slope

erosion

unusual movement

animal burrows

water-loving vegetation

trees

brush

Is there seepage?  Yes  No If yes,

Location of seep:

Estimated flow:

Is the seep?  clear  turbid  N/A

Is there sediment?  Yes  No

Overall condition:

Actions needed:

### Pond liner Check all that apply:

slope slumping

tears, punctures, abrasion, other damage

seam separation

liner attachment issues to pipes, ramps, manholes

ballooning of liner

gas vents obstructed

safety ladders/ropes integrity issues

anchor trench/batten straps issues

liner subgrade support movement or displacement

Overall condition:

Actions needed:

### Internal leak detection system

Check water level in sump. Is water present:  Yes  No

Damage to pipe boot at riser?  Yes  No

Odors coming from inside riser boot?  Yes  No

Overall condition:

Actions needed:

## Drop Inlet Spillway or Culvert (Pipe) Spillway

Spillway entrance or approach channel Check all that apply:

debris

vegetation

slides

other obstructions

erosion protection

other debris barrier

trash rack in good condition

Overall condition:

Actions needed:

Intake or riser structureLook at riser crest, sidewalls, floor, trash rack, air vent. Check all that apply:

misalignment

movement

settlement

cracking

concrete deterioration

seepage at joints or cracks

metal corrosion

missing bolts

air vent obstruction

debris

vandalism

Overall condition:

Actions needed:

## Drop Inlet Spillway or Culvert (Pipe) Spillway Cont.

Gates and gate controls Check all that apply: (leave blank if not applicable)

operable and working

corrosion

deterioration

vandalism

other damage

annual maintenance has been done

Overall condition:

Actions needed:

Outlet pipeline Look at concrete or metal condition, protective coating, pipe joints. Check all that apply:

debris

other blockage or obstruction

joint separation

movement

cracks

deterioration

settlement

corrosion

cavitation

seepage from drains/pipe exterior

Overall condition:

Actions needed:

Pipeline outfall or stilling basin Check all that apply:

debris

vegetation

concrete condition poor

movement

cracks

deterioration

settlement

erosion

undermining

gabions in poor condition

riprap layer in poor condition

Overall condition:

Actions needed:

### Lead-out drain outfall(s)

Able to locate?  Yes  No Is there evidence of seepage?  Yes  No

Overall condition:

Actions needed:

## Open Channel Spillway or Weir Drop Structure

### Spillway entrance and overflow section, or weir overflow structure

Look at channel base, side slopes; concrete floor, sidewalls; weir boards. Check all that apply

debris

vegetation

slides

other obstructions

concrete in poor condition

movement

cracks

deterioration

settlement

cavitation

erosion in earth or grass-lined channel

gabions in poor condition

riprap layer in poor condition

weir boards in poor condition

log boom in poor condition

other debris barrier in poor condition

Overall condition:

Actions needed:

## Open Channel Spillway or Weir Drop Structure Cont.

Gates and gate controls Check all that apply: (leave blank if not applicable)

operable and working

corrosion

deterioration

vandalism

other damage

annual maintenance has been done

Overall condition:

Actions needed:

Outlet channel Check: channel base, side slopes; concrete floor, sidewalls. Check all that apply:

debris

vegetation

slides

other obstructions

concrete in poor condition

movement

cracks

deterioration

settlement

cavitation

erosion in earth or grass-lined channel

gabions in poor condition

riprap layer in poor condition

seepage from under-drains or along concrete exterior

Overall condition:

Actions needed:

Spillway outfall or stilling basin Check all that apply:

debris

vegetation

concrete in poor condition

movement

cracks

deterioration

settlement

erosion

undermining

gabions in poor condition

riprap layer in poor condition

Overall condition:

Actions needed:

Under-drain outfalls Check all that apply:

Able to locate?  Yes  No Is there evidence of seepage?  Yes  No

Overall condition:

Actions needed:

**Low-Outlet Works** (visible elements)

**Intake structure** (if visible)Check all that apply:

debris

other obstructions

trash rack in poor condition

other debris barrier in poor condition

concrete in poor condition

metal in poor condition

Overall condition:

Actions needed:

Gates/valves and control mechanisms Check all that apply:

operable and working

corrosion

deterioration

vandalism

other damage

annual maintenance has been done

Overall condition:

Actions needed:

**Low-Outlet Works Cont.** (visible elements)

Outlet pipeline and pipe outfall Look at concrete or metal condition, protective coating, pipe joints. Check all that apply:

debris

other blockage or obstruction

joint separation

movement

cracks

deterioration

settlement

corrosion

cavitation

undermining at outfall

seepage from drains/pipe exterior

gabions in poor condition at outfall

riprap in poor condition at outfall

Overall condition:

Actions needed:

Internal seepage/drainage controls (leave blank if not applicable)

### Lead-out drain outfalls:

Able to locate?  Yes  No

Clarity of flow:

Color or staining?  Yes  No

Presence of fines or sediment?  Yes  No

Estimated/measured flow(s):

Measuring devices:

Overall condition:

Actions needed:

### Piezometers:

Able to locate?  Yes  No

In secure location?  Yes  No

Readings:

Condition of casing:

Overall condition:

Actions needed:

## Emergency Action Plan (EAP) and Operation and Maintenance (O&M) Manual

Date of EAP or last update on file with Ecology? Date:

Date of O&M Manual or last update on file with Ecology? Date:

## Additional Comments

|  |
| --- |
|  |

## Plan View of Dam



(Insert plan view of dam and spillways)

## Photographs

 

(Insert photographs)

** **

**Mail or email a copy of this completed form to the attention of the Dam Compliance Technician at Ecology’s Dam Safety office:**

By email: [damsafety@ECY.WA.GOV](mailto:damsafety@ECY.WA.GOV)

By mail: Washington State Dept. of Ecology

Dam Safety Office

Attn: Dam Compliance Technician

PO Box 47600

Olympia, WA 98504-7600

**Problems found during your inspection?**

If a problem is observed, please call the Dam Safety Office at (360) 407-6872 during business hours for guidance and assistance.

If it is an emergency call:

1. Call **911**

2. Call State Division of Emergency Management

* 1. Call the Duty Officer (available 24 hours/day) at **1-800-258-5990**
  2. Clearly state that this is a “**dam safety emergency**”

**Would you like a customized inspection form?**

If you have found that this form has sections that do not apply to your dam or there are aspects to your dam that are not captured in this form, contact the Dam Compliance Technician at (360) 407-6613 or [damsafety@ECY.WA.GOV](mailto:damsafety@ECY.WA.GOV) and we will create an Annual Inspection Form specific to your dam.

**Helpful Documents and Information**

[Ecology’s Dam safety website](https://ecology.wa.gov/Water-Shorelines/Water-supply/Dams): <https://ecology.wa.gov/Water-Shorelines/Water-supply/Dams>

Documents found there:

* General information and dam ownership responsibilities
* Dam owner’s guidance manual
* Impacts of animals on earthen dams
* Impacts of plants on earthen dams
* Burrowing animal guidance