

Dam Inspection and Assessment of Effects Form

This form is to be completed by dam owners when applying to renew expiring resource consents but particularly for dams under 3 metres in height and storing under 20,000 cubic metres of water, and for the taking of water from storage. Some questions may not be applicable to you. To complete this questionnaire, we expect dam owners will need to inspect their dam, its spillway, pipes etc. If you have any questions regarding this form please contact Neil Tyson, Consent Planner, Water on (03) 543-8497, or e-mail neil.tyson@tdc.govt.nz.

Dam Details

Council Dam ID Number (if known): _____

Property Valuation Number (where dam is located): _____

Current Consent Number: _____

Dam Owner Name: _____ Contact Phone: _____

Dam Location: _____

Date Dam Constructed: _____

Dam Design and Engineered By: _____

Dam Condition

Dam size and material

Catchment Area (ie, Area Upstream of Dam) (ha): _____

Dam Height (m): _____ Storage Capacity (m³): _____

Crest Width (m): _____ Crest Length (m): _____

Upstream dam wall

Slope: _____

On the upstream dam face, identify the percentage (if any) of the dam crest lost to (wavelap) erosion since construction.

Comment whether this appears to have stabilised:

None Minor loss (0-10%) >10% but now stable >20%

The dam embankment's minimum actual crest width is (m): _____

Comments: _____

Downstream dam wall

Slope: _____

On the dam embankment, are there any trees growing? Yes No

Earth dams may seep when full – but the amount of seepage should be very minor. Generally, there should be no flowing water or spring exiting from the compacted dam wall – and any flowing water should be clear, not discoloured. Please confirm any significant seepage or flow:

None Minor seepage Excessive seepage and flow

On the dam's downstream face, are there any signs of embankment slumping or subsidence?

No Minor More than minor, continuing movement

Comments: _____

Miscellaneous Outlets

Discharge pipe

Is there a discharge pipe through the dam? Yes No

If "yes", state:

Pipe size (mm): _____ Gate valve size (mm): _____

Comments: _____

Spillway

Type: _____ Slope: _____

Intake level (below crest): _____ Spillway bed width (m): _____

Has spillway capacity ever been exceeded in a flood? Yes No

Which of the following best indicates the maintenance and condition of the spillway? Blockages could be as a result of slumping of the banks, vegetation growth etc.

Fully maintained and operational. No erosion, blockages etc evident.

Minor erosion and/or blockage of spillway. Erosion less than 5% of spillway area.

Moderate erosion and/or blockage of spillway. Erosion over 5-25% of spillway area.

Significant erosion or blockage. May include gullyng. Significant repairs required.

Comments: _____

Low flow pipe

Is there a low flow pipe through the dam? Yes No

If "yes", state:

Size (mm): _____ Depth below spillway (mm): _____

Condition: _____

Comments: _____

Dam Hazard Condition

Below your dam are there downstream occupied houses, or bachs or temporary accommodation where people's lives could be at risk if the dam failed and rapidly discharged? Yes No

Are there downstream chemical stores, buildings etc which could be destroyed or damaged if the dam failed? Yes No

If your dam has a crest height >3 metres, how often has it been checked by an experienced civil engineer?

At completion only Once since completion More than twice

Do you have adequate insurance cover in case your dam fails? Yes No

Dam Repairs Proposed

The following repairs are proposed to the dam:

Digital Photographs

Please provide recent photographs or (preferably) digital images of your dam and forward them to Council.
Digital images of the dam are being emailed to Council?

Yes No

Environmental Assessment

This section deals with the environmental effects of the dam. Please complete the applicable questions.

1. Regarding gully dams and the permanence of the stream flow entering your dam, is it?
 All year (ie, permanent) No summer inflow (ie, ephemeral) N/A (No natural inflow, as water is pumped to storage)
2. Are there upstream dam(s) or other water uses affecting the flow of water into your dam?
 Yes No
3. Are there years when run-off is inadequate and the dam is not filled prior to summer?
 Yes No Which years? _____
4. Are there any downstream water users, landowners etc who you think are affected by your damming or your use of water, or is potentially affected, or have complained?
 Yes No
5. Please identify if any of the following are observed in your dam:
 Eels Cockabullies Other Fish Freshwater Crayfish (Koura) Shags
6. Where your dam is across a permanent or semi-permanent flowing stream, please indicate if any of the following are observed either upstream or downstream of your dam:
 Eels Cockabullies Inanga Other Fish Freshwater Crayfish (Koura)
7. Owners of dams are encouraged not to completely drain their dams because of adverse effects on resident eels. Please comment whether you drain your dam:

8. Please name any chemical applied to the water stored in your dam, and the reason for its use:

9. Please comment on any problems (and/or solutions) regarding water quality in your dam. Have you experimented with straw bales to control algal growth? Have you had problems with insects such as midges in your dam?

10. Where stored dam water is used for irrigation state:
Area of land irrigated (ha): _____ Hourly irrigation rate (m³/hr): _____
Estimated maximum daily use (m³): _____
Note: Taking and use of less than 5 m³/day/property from a dam does not require a resource consent.
Is the pipe(s) taking water from storage screened to avoid entraining of fish and eels?
 Yes No

