

# 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](mailto: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 (m<sup>3</sup>): \_\_\_\_\_

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 (m<sup>3</sup>/hr): \_\_\_\_\_  
Estimated maximum daily use (m<sup>3</sup>): \_\_\_\_\_  
*Note: Taking and use of less than 5 m<sup>3</sup>/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

