

## Otago Regional Council Proposed Flood Protection Management Bylaw

### **Staff response to Panel requests**

#### **Background**

1. A public hearing in respect of the Otago Regional Council (ORC) Proposed Flood Protection Management Bylaw (Proposed Bylaw) was held in the ORC Council Chamber, Philip Laing House, Dunedin, on Friday 13 May 2022.
2. The Hearing Panel comprised Councillor Kate Wilson (Chair), Councillor Gretchen Robertson and Mr Allan Cubitt (independent commissioner).
3. The Hearing Panel has requested clarification or advice on various matters. These have been addressed below under the following titles:
  - Submission 9, University of Otago
  - Submissions 14, 16 and 19, Emma Peters – Sweep Consultancy Ltd, Charlotte Young and Jason Coutts
  - Submission 23, IH & DJ Bryant
  - Other matters
4. This report is as an addendum to the Summary of Submissions report dated 9 May 2022. An amended Appendix 2 (Proposed Flood Protection Management Bylaw) is attached to this report.

#### **Submission 9, University of Otago**

5. The Hearing Panel has requested the following information to address points raised by the University of Otago submission:
  - Provision for minor earthworks associated with repair/replacement of services (e.g., cables and pipes).
  - Provision for gardening within 20m of a defence against water.
  - Accuracy of Leith Lindsay defence against water mapping, and any implications of this.
  - Confirmation of measurement of 7m and 20m from the Leith Lindsay defence against water.

Provision for minor earthworks within 20m of a defence against water

6. Rule 3.2(i) restricts earthworks in, on, through, under, within 20m of a defence against water (unless those earthworks relate to cultivation), between the bank of a river and the defence against water, and within any excavation sensitive area.
7. The University of Otago advised that they undertake minor services works (e.g., placement, replacement or maintenance of cables and pipes) around 10-20 times a year.
8. Earthworks can present a major risk to flood protection works as they can alter the land surface and change flow patterns (both during and after the completion of earthworks activities), and it is important that there is appropriate consideration of risk and mitigation measures, even for what may appear to be relatively minor earthworks.
9. As such, we consider that it is appropriate that the University of Otago obtain Bylaw Authority for the types of works described, particularly given their relative frequency. We consider this Bylaw Authority could be in the form of a global bylaw authority which references a Works Programme required to be approved by ORC prior to works being undertaken. This would allow for flexibility as the Works Programme could be periodically updated, rather than the University of Otago having to apply for new Bylaw Authorities each time.

1.9.1 Provision for gardening within 20m of a defence against water

10. Rule 3.2(i) restricts earthworks in, on, through, under, within 20m of a defence against water, between the bank of a river and the defence against water, and within any excavation sensitive area. Rule 3.2(i)(ii) restricts earthworks within 20m of a defence against water unless those earthworks relate to cultivation.
11. Cultivation is defined in the Proposed Bylaw as:

*Cultivation means the alteration or disturbance of land (or any matter constituting land including soil, clay, sand and rock) for the purpose of sowing, growing or harvesting of pasture or crops, to a depth of no more than 300 millimetres below the existing ground surface.*
12. It is considered that cultivation is allowable within 20m of a defence against water, because by its nature (minor land disturbance and planting of small crops) it is not likely to adversely affect the integrity or operation of flood protection works. We consider that cultivation can also be extended to include planting associated with gardening which is comparable to crops, and includes grasses, ground cover, bulbs

and small flowering plants but which excludes large plants such as shrubs, hedges or trees.

13. As such, we propose that the definition of cultivation is amended as shown below, to allow for small scale gardening activities within 20m of a defence against water:

*Cultivation means the alteration or disturbance of land (or any matter constituting land including soil, clay, sand and rock) to a depth of no more than 300 millimetres below the existing ground surface for the purpose of sowing, growing or harvesting of pasture, ~~or~~ crops, or domestic gardening; cultivation does not include the planting of trees, shrubs or hedges.)*

Accuracy of Leith Lindsay defence against water mapping, and any implications of this

14. A question was raised regarding the accuracy of the Leith Lindsay maps showing defences against water adjacent to the Leith channel, through buildings, etc., and not down the middle of the river bed.
15. We clarify that the Leith Lindsay defence against water is the concrete-lined bed and concrete walls of the river and/or earth bunds adjacent to the river and is not the line shown on the map.
16. We propose to amend the location of the Leith Lindsay defence against water lines in the Second Schedule by showing it in the location identified above. We also consider the definition of defence against water could be amended to say:

*Defence against water means any defence against water shown in the Second Schedule ~~and includes the bed.~~ The beds of the Water of Leith and Lindsay Creek and associated flood protection structures are defences against water. The locations of the Water of Leith and Lindsay Creek are marked in red on the Leith Lindsay map blue in the Second Schedule.*

Confirmation of measurement of 7m and 20m from the Leith Lindsay defence against water

17. Rules 3.2(c), (d), (d), (e), (f), (g) and (i) restrict activities within either 7m or 20m of the landward side of a defence against water. There was some confusion relating to from where the distances from the Leith Lindsay defence against water should be measured.
18. The relevant statement of the rules is copied below:

*“within seven metres of the landward side of any defence against water”*

*“within 20 metres of the landward side of any defence against water”*

19. In our view this rule applies to the distance measured from the landward edge of the defence against water. In the Leith Lindsay, this is considered to be from the outer edge of the top of the concrete wall or the landward toe of the earth bund.
20. We also note that the Leith Lindsay map legend incorrectly refers to the defence against water as a 'floodbank' and propose that this is amended to 'Leith Lindsay defence against water'.

**Submissions 14, 16 and 19, Emma Peters – Sweep Consultancy Ltd, Charlotte Young and Jason Coutts**

21. The Hearing Panel has requested the following information to address points raised in the titled three submissions:
  - Appropriate time for objections to be made, and if the objection made within this time must contain all objection material.
  - Filling restrictions between 7m and 20m from a defence against water.

Appropriate time for objections to be made, and if the objection made within this time must contain all objection material

22. The submitters stated that 15 working days was not long enough to prepare an objection (Rule 5.3(a)), given that it may require technical and expert inputs. A question was also raised whether it was expected that all information in relation to the objection is included within the stated timeframe.
23. The Local Government Act 2002 does not require an objections process or define any time period associated with an objection, but to provide more time it could be extended out to 20 working days which is consistent with the Resource Management Act 1991.
24. Clause 5.3(b)(ii) states that matters that the Council must have regard to when making its determination, including the matters presented in support of the objection. As such, we consider that all information being presented in the objection should be provided within the stated timeframe. We note that there is nothing restricting a person requesting an extension to the objection period.
25. For consistency, we consider that the period for making a written submission on the revocation of an Authority also be extended to 20 working days (Rule 6.1(b)(ii)(2)).

Filling restrictions between 7m and 20m from a defence against water

26. Submissions 14, 16 and 19 raised the matter that under the 2012 Bylaw, filling is allowed between 7 and 20metres from a defence against water, but that the Proposed Bylaw amendment has removed this allowance.
27. We note the proposed change from the use of the term 'excavation' to 'earthworks' in Rule 3.2(i) results in any filling activities within 20m of the landward side of a defence against water requiring an Authority. The submissions highlighted that this would cause them operational issues on their farm.
28. We have discussed the risks of undertaking excavation and fill works within 7 and 20 metres from a defence against water with Council Staff. We have been advised that excavation earthworks need to be restricted up to 20m from a defence against water because they contribute to increased risk of piping, erosion and floodbank failure. Earthworks involving fill, however, need only be restricted to within 7m from a defence against water for the operation or integrity of flood protection works.
29. As such, we propose that the term 'filling' be deleted from the definition of earthworks, to allow for fill earthworks more than 7m from a defence against water.

*Earthworks means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, ~~filling~~ or excavation of earth (or any matter constituting the land including soil, clay, sand and rock).*

30. We acknowledge that this also impacts Rules 3.3 (floodways) and 3.4 (groynes, cross-banks and training lines) and are comfortable that this is appropriate with respect to those flood protection works.

### **Submission 23, IH & DJ Bryant**

31. IH & DJ Byrant's submission raised that their property has been identified as an Excavation Sensitive Area, but noted that various reports stated that there is minimal risk to floodbanks from excavation on their property.
32. We have sought advice from Tonkin + Taylor and concluded thatit is appropriate for the Excavation Sensitive Area on IH & DJ Bryant's property to be reduced. A map showing the extent to be deleted is attached to this addendum.

### **Other matters**

#### Removal of pest tree plants (e.g., willows, sycamores)

33. Cr Wilson requested clarification on whether the removal of pest tree plants, such as willows and sycamores should be enabled.

34. The removal of trees presents a significant risk to defences against water by changing flow paths and/or resulting in holes susceptible to erosion and scour. This risk remains regardless of whether they are native species or pest plant species such as willows and sycamores. The requirement to obtain a bylaw authority means that appropriate consideration of the risk occurs, and for this reason we consider it appropriate to include the pest plants in this clause.
35. If landowners are looking to remove pest plant species from their properties, it is likely ORC staff would work with the landowner with respect to their removal and any Bylaw Authority. We note that the Proposed Bylaw states that Council may waive the whole or any part of a fee payable under this bylaw and this could be a situation where a waiver may apply. This would be considered on a case-by-case basis.

#### Permitted planting guidance

36. The Proposed Bylaw places restrictions on planting any tree, shrub, hedge or part thereof within 7m of a scheduled drain, defence against water, groyne, cross-bank or training line, or in a floodway or within flood protection vegetation. Smaller plants that are not trees, shrubs or hedges (e.g., grasses, groundcover, bulbs and small flowering plants) can be planted without requiring a Bylaw Authority (please see paragraphs 12 - 15 which recommend authorising planting associated with gardening. Cr Wilson requested more information on whether ORC can provide some guidance to assist people wishing to undertake riparian planting works that don't require Bylaw Authority.
37. There are riparian planting guides available on the ORC website (<https://www.orc.govt.nz/managing-our-environment/water/good-practice-information>), however we acknowledge that there are not many plants in these lists that can be planted without a Bylaw Authority.
38. The interactions between planting and flood effects are complex, and there are risks that inappropriate planting can adversely affect the integrity and operation of flood protection works, for example restricting flow capacity or diverting flows, resulting in changed flow direction and increased erosion and scour. The risks of plantings adversely affecting flood protection works are site-specific.
39. We have consulted with Council Staff and consider the best approach is for individual groups to approach ORC staff for site-specific guidance on plantings that would be appropriate from a flood management perspective, rather than to provide blanket recommendations which could present a risk to flood management works in some

locations. We suggest a statement inviting people to discuss could be added to the website.

Use of term authorised in Rule 3.0

- 40. Cr Wilson raised the matter that the statement following statement in Rule 3.0 uses the word 'authorised' and that it was unclear if this meant the same as the term 'authority' as defined in the Proposed Bylaw (authority means written approval issued by the Council under this Bylaw), or instead meant "permitted/allowed/approved".
- 41. In our view, the term 'authorised' means "permitted/allowed/approved", rather than requiring 'authority' as defined in the Proposed Bylaw. We consider this could be clarified by amending the wording to say:

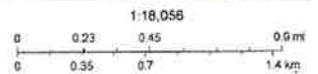
*"Nothing in this Bylaw applies to Council employees or persons contracted by Council undertaking maintenance or emergency works on flood protection works"*



May 19, 2022

- District Boundaries
- ORC Properties
- Street Address
- Roads

approximate proposed extent of excavation sensitive zone on largest property (accuracy tbc)



LINZ, DCC, WDC, CDC, OLC, COOC and ORC: Eagle Technology; Land Information New Zealand, GIBCO, Community maps contributors, Otago Regional Council

Proposed  
Flood Protection  
Management Bylaw  
20122

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## **Chairperson's Foreword**

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### First Schedule

Maps of scheduled drains and overland flow paths.

### Second Schedule

Maps of defences against water and excavation-sensitive areas.

### Third Schedule

Descriptions and maps of floodways.

### Fourth Schedule

Maps of groynes, cross-banks, training lines and flood protection vegetation, ~~anchored tree protection and plantings.~~

**Appendix One**

Diagrams referencing Activities requiring Bylaw Authority

**Appendix Two**

Bylaw Approval Authority Application Form.

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## FLOOD PROTECTION MANAGEMENT BYLAW 20122

The Otago Regional Council, pursuant to the powers contained in the Local Government Act 2002, makes the following Bylaw:

### Title

This Bylaw shall be known as the Flood Protection Management Bylaw 20122.

### Commencement

This Bylaw shall come into force on the 1<sup>st</sup> of September [date] 20122.

### 1.0 PURPOSE

The purpose of this Bylaw is to manage, regulate and protect the effective operation and integrity of flood protection works owned by or under the control of the ~~Otago Regional Council~~ Council.

~~Flood protection works can include *scheduled drains, overland flow paths, defences against water, floodways, groynes, cross-banks, training lines and flood protection vegetation, anchored tree protection and plantings.*~~

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This Bylaw ~~only~~ controls activities that may affect the integrity or operation of flood protection works.

### 2.0 DEFINITIONS

Note: ~~W~~ where a word is defined it is shown in the Bylaw text in *italics*.

~~**Anchored Tree Protection** means any anchored tree protection shown in the Fourth Schedule.~~

~~**Authorised access** means legally established access that was in place prior to this Bylaw coming into effect or access that is authorised under this Bylaw.~~

**Authority** means written approval issued by the *Council* under this Bylaw.

**Bed** means the space of land which the waters of the *river* cover at its fullest flow without overtopping its banks.

**Council** means the Otago Regional Council and includes any person duly authorised by the *Council* to exercise any of the powers conferred upon the *Council* by this Bylaw.

**Cross-bank** means any cross-bank shown in the Fourth Schedule.

**Cultivation** means the alteration or disturbance of land (or any matter constituting land including soil, clay, sand and rock) to a depth of no more than 300 millimetres

below the existing ground surface for the purpose of sowing, growing or harvesting of pasture, or crops or domestic gardening; cultivation does not include the planting of trees, shrubs or hedges, to a depth of no more than 300 millimetres below the existing ground surface.

**Defence against water** means any defence against water shown in the Second Schedule. The beds and includes the bed of the Water of Leith and Lindsay Creek and associated flood protection structures are defences against water. The locations of the Water of Leith and Lindsay Creek areas marked in red-blue on the Leith Lindsay map in the Second Schedule.

**Ditches** means any drainage network, other than scheduled drains.

**Drain**, in clause 3.3 Floodways, means any drain shown in the First Schedule artificial watercourse designed, constructed, or used for the drainage of surface water or subsurface water, but excludes artificial watercourses used for the conveyance of water for electricity generation, irrigation, or water supply purposes (note also the definition of Scheduled drain).

**Earthworks** means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock).

**Excavation** means the removal of material, which results in a hole or cavity.

**Excavation-sensitive areas** means any excavation-sensitive area shown in the Second Schedule.

**Flood protection works** include scheduled drains, overland flow paths, defences against water, floodways, groyne, cross-banks, training lines and flood protection vegetation, anchored tree protection and plantings.

**Flood protection vegetation** means all trees and shrubs, including those deliberately planted, or self-seeded, owned or controlled by Council for flood or erosion protection purposes occurring between the 'Flood protection vegetation' lines in the Fourth Schedule. Where only one 'flood protection vegetation' line is shown, the area of vegetation to be managed for flood protection will be the area between the line and the adjacent edge of the active channel in the Fourth Schedule.

**Floodway** means any floodway shown in the Third Schedule.

**Groynes** means any groyne shown in the Fourth Schedule.

**Occupier** in relation to any property, means the lawfully authorised inhabitant occupier of that property and persons who have legal right to undertake activities on that property.

**Overland flow path** means any overland flow path shown in the First Schedule.

**Owner** in relation to any property, means the person entitled to receive the rack rent thereof, or who would be so entitled if the property were let to a tenant at a rack rent.

**Plantings** means any planting shown in the Fourth Schedule.

**River** means a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse.

**Scheduled drain** means any drain or river shown as a Scheduled drain in the First Schedule.

**Structure** includes any building, crossing, equipment, device or other facility made by people and which is fixed to land; and includes any raft (and also includes, but is not limited to, any driveway, fence, gate, line or cable and any culvert, pipe, or other kind of conduit) but does not include any lines or cables to be carried upon existing bridges or utility support structures authorised in accordance with this Bylaw.

**Training line** means any training line shown in the Fourth Schedule.

### 3.0 ACTIVITIES REQUIRING BYLAW AUTHORITY

Nothing in this Bylaw applies to Council employees or persons ~~authorised~~ contracted by Council undertaking maintenance or emergency works on those flood protection works subject to the Bylaw

Resource consent or authorisation may also be required from the ~~Otago Regional Council~~ Council, relevant territorial authority or the Department of Conservation.

Note: Diagrams are included in Appendix 1 to illustrate the relevant areas of the flood protection works covered by ~~sections~~ clauses 3.1 and 3.2.

#### 3.1 Scheduled Drains and Overland Flow Paths

No person shall, without the prior *authority* of the Council –

- a. Alter any scheduled drain or overland flow path;
- b. Remove or interfere with any machinery or equipment relating to any scheduled drain;
- c. Plant ~~or allow to grow~~ any tree, shrub, hedge or part thereof
  - i. in any scheduled drain or overland flow path, or
  - ii. on, or within, seven metres of the top of the bank of, any scheduled drain;
- d. Construct or put any *structure*
  - i. in, over, through or under any scheduled drain or overland flow path, or
  - ii. on, or within, seven metres of the top of the bank of, any scheduled drain;
- e. Dump or deposit any thing in any scheduled drain or overland flow path;
- f. Obstruct any scheduled drain or overland flow path;
- g. Drive, take or operate any vehicle, machinery or equipment, in or through any scheduled drain;
- h. Allow livestock in or through any scheduled drain;
- i. Connect any pipe, channel or other conduit to any scheduled drain or overland flow path.

### 3.2 Defences Against Water and Excavation-Sensitive Areas

No person shall, without the prior *authority* of the Council –

- a. Alter any *defence against water* except as provided for by rule 3.2 (fg);
- b. Remove or interfere with any machinery or equipment relating to any *defence against water*;
- c. Plant ~~or allow to grow~~ any tree, shrub, hedge or part thereof
  - i. on any *defence against water*, or
  - ii. within seven metres of the landward side of any *defence against water*, or
  - iii. between the bank of any river and associated *defence against water*;
- d. Cut down or remove any tree
  - i. on any *defence against water*, or
  - ii. within seven metres of the landward side of any *defence against water*, or
  - iii. between the bank of any river and associated *defence against water*;
- ~~d.e.~~ Construct or put any *structure*
  - i. in, on, over, through or under any *defence against water*, or
  - ii. within seven metres of the landward side of any *defence against water*, or
  - iii. between the bank of any river and associated *defence against water*;
- ~~e.f.~~ Remove or alter any *structure*
  - i. in, on, over, through or under any *defence against water*, or
  - ii. within seven metres of any *defence against water*, or
  - iii. between the bank of any river and associated *defence against water*, or
  - ~~iv.iii.~~ within any *excavation-sensitive area*;
- ~~f.g.~~ Dump or deposit any thing
  - i. on any *defence against water*, or
  - ii. within seven metres of the landward side of any *defence against water*, or
  - iii. between the bank of any river and associated *defence against water*; excluding materials for maintenance of existing authorised access ~~or~~ where dumping or deposition of material is an inherent part of an activity that is permitted under any other rule in this Bylaw;

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- g-h. Allow livestock, vehicles, machinery or equipment to adversely affect the integrity of any *defence against water*;
- h-i. Carry out any ~~excavation~~ earthworks
- i. in, on, through or under any *defence against water*, or
  - ii. ~~within 20 metres of the landward side of any *defence against water* which lowers the existing ground surface by more than 300 millimetres in depth, or~~
  - ii. within 20 metres of the landward side of any *defence against water* unless the earthworks relate to *cultivation*, or
  - iii. between the bank of any river and associated *defence against water*, or
  - iv. within any *excavation-sensitive area*, if the *earthworks* involve *excavation*.

### 3.3 Floodways

No person shall, without the prior *authority* of the Council –

- a. Alter any *floodway* except as provided for by rules 3.3 (e) and (g);
- b. Remove or interfere with any machinery or equipment relating to any *floodway*;
- c. Plant ~~or allow to grow~~ any tree, shrub, hedge or part thereof in any *floodway*;
- d. Construct or put any *structure* in, on, over, through or under any *floodway*;
- e. Dump or deposit any thing in any *floodway*, excluding materials for maintenance of existing authorised access, where dumping or deposition of material is an inherent part of an activity that is permitted under any other rule in this Bylaw, or as a result of maintenance of ~~ditches~~ drains undertaken in accordance with rule 3.3 (g);
- f. Obstruct any *floodway*;
- g. Carry out any ~~excavation~~ earthworks in any *floodway*, excluding maintenance of ~~ditches~~ drains;
- h. Connect any pipe, channel or other conduit to the Hilderthorpe or Hendersons and Waikoura Creeks floodways.

**3.4 Lower Waitaki River Groynes and Cross-banks and Training Lines and Anchored Tree Protection**

No person shall, without the prior authority of the Council—

- a. Alter any ~~groyne or cross-bank or training line or anchored tree protection~~;
- b. Remove or interfere with any machinery or equipment relating to any ~~groyne or cross-bank or training line or anchored tree protection~~;
- c. Plant ~~or allow to grow~~ any tree, shrub, hedge or part thereof ~~on, or within seven metres, of any groyne, cross-bank or anchored tree protection~~;
  - i. ~~on any groyne, or cross-bank or training line~~; or
  - ii. ~~within seven metres of any groyne or cross-bank or training line~~;
- d. Construct or put any ~~structure~~
  - i. in, on, over, through or under any ~~groyne, or cross-bank or training line or anchored tree protection~~, or
  - ii. within seven metres of any ~~groyne, or cross-bank or training line or anchored tree protection~~;
- e. Remove or alter any ~~structure~~
  - i. in, on, over, through or under any ~~groyne, or cross-bank or training line or anchored tree protection~~, or
  - ii. within seven metres of any ~~groyne, or cross-bank or training line or anchored tree protection~~;
- f. Dump or deposit any thing on, or within fifty metres of any ~~groyne, or cross-bank or training line or anchored tree protection~~; excluding materials for the purpose of ~~authorised access authorised maintenance or where dumping or deposition of material is an inherent part of an activity that is permitted under any other rule in this Bylaw~~;
- g. Carry out any ~~excavation earthworks~~
  - i. in, on, through or under any ~~groyne, or cross-bank or training line or anchored tree protection~~, or
  - ii. ~~within fifty metres of any groyne, or cross-bank or training line unless the earthworks relate to cultivation or anchored tree protection which lowers the existing ground surface by more than 300 millimetres in depth, or~~
  - iii. ~~between the bank of any river and associated groyne, or cross-bank or training line or anchored tree protection~~;
- h. Allow livestock, vehicles, machinery or equipment to adversely affect the integrity of any ~~groyne, or cross-bank or training line or anchored tree protection~~.

### 3.5 ~~Lower Waitaki Plantings~~ Flood Protection Vegetation

No person shall, without the prior *authority* of the Council –

- a. Remove, alter or interfere with any ~~plantings~~ flood protection vegetation; or
- b. ~~Add to any plantings.~~ Plant ~~or allow to grow~~ any tree, shrub, hedge or part thereof within any flood protection vegetation;
- c. Allow stock to graze within any flood protection vegetation.

~~*Note: The extent of this vegetation is defined as the area between the 'flood protection vegetation' lines, or where there is only one 'flood protection vegetation' line, the area of vegetation to be managed for flood protection will be the area between the line and the adjacent edge of the active channel as shown in the Fourth Schedule.*~~

#### 4.0 ACTIVITIES REQUIRED TO BE UNDERTAKEN

##### 4.1 Structures

The *owner* of every *structure* impacted by clause 3.1 to 3.4 shall keep it in good repair.

##### 4.2 Floodways

- a. Within any *floodway* every fence and gate shall be maintained free of debris.
- b. Within the Hilderthorpe *Floodway*, every fence shall include a floodgate which enables the free flow of flood water.

##### 4.3 Fencing of Drains

The *Council's* Chief Executive may, by written notice, require every *owner*, and every *occupier* of land adjoining any *scheduled drain* to, in the time and manner stated in the notice, erect fencing to prevent livestock entering the *scheduled drain* at the cost of the *owner*, if in the opinion of the Chief Executive, fencing is necessary to ensure the effective operation and integrity of the *scheduled drain*.

##### 4.4 Access

The *Council's* Chief Executive may, by way of notice displayed on site, prohibit or restrict access to any *flood protection works*, if, in the opinion of the Chief Executive the restriction or prohibition is necessary to ensure the effective operation and integrity of the *flood protection works*.

## 5.0 APPLYING FOR AN AUTHORITY

### 5.1 Authority

- a. An application to the *Council* for *authority* under this Bylaw shall be made in accordance with the Bylaw ~~Approval~~ *Authority* Application Form (Appendix ~~One~~ *Two*) and be accompanied by the prescribed fee;
- b. Any *authority* under this Bylaw may be granted on such conditions as the *Council* considers appropriate. When considering applications for *authority*, the *Council* shall have regard, but not be limited to, the following assessment criteria, in order to ensure the effective operation and integrity of the *flood protection works*:
  - Capacity
  - Stability, scour and erosion risk
  - Access for inspection and maintenance purposes
  - Duration of authority
  - Water quality
- c. If *Council* refuses an application for *authority*, the *Council* shall give written reasons for that decision.
- e.d. Every person to whom an *authority* is granted shall produce that *authority* for inspection on request by the *Council*.

### 5.2 Fees

- a. The *Council* may, by using the special consultative procedure in Section 83 of the Local Government Act 2002, prescribe any fee payable by any person who applies for an *authority* under this Bylaw.
- b. The *Council* may, in such situations as the *Council* may determine, refund, remit, or waive the whole or any part of any fee payable under this Bylaw.

### 5.3 Objections Process

- a. Any person who applies for *authority* under this Bylaw, within ~~five~~ *20* working days of receiving any decision or *authority* in relation to this Bylaw, may object in writing to the *Council* in regard to that decision or *authority*. Objections to a decision or *authority* are limited to a refusal of the *authority* or the conditions placed on the *authority*.
- b. The *Council* may uphold, amend or rescind the decision or *authority*, and in making its determination must have regard to:

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- i. the evidence on which the decision or authority was based;
  - ii. the matters presented in support of the objection; and
  - iii. any other relevant matters.
- c. The Council must, as soon as practicable, give written notice to the applicant, including the reasons for that determination.

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## 6.0 COMPLIANCE AND ENFORCEMENT

### 6.1 Revocation of Authority

- a. The *Council* may, in accordance with this clause, revoke any *authority* granted under this Bylaw, if the holder of the *authority* contravenes or fails to comply with any condition of the *authority*.
- b. Subject to 6.1(d), before revoking any *authority*, the *Council* shall give written notice to the holder of the *authority* that the *Council* may revoke the *authority* which:
- i. ~~written notice to the holder of the *authority* that the *Council* may revoke the *authority* sets out the respects in which the holder has contravened or failed to comply with any condition of the *authority*; and~~
  - ii. ~~the holder an opportunity of making, within 14 days, written submissions relating to the possible revocation of the *authority*; if the breach or failure is capable of remedy, gives the holder a reasonable time within which to remedy it; and~~
  - iii. warns the holder that the *Council* may revoke the *authority* if the holder does not either:
    1. remedy the breach or failure within the time specified or within such further time as the *Council* may allow on application; or
    2. make, within 2014 working days, a written submission to the *Council* setting out reasons why the *authority* should not be revoked.
- c. On receipt of a request by the holder for further time pursuant to clause 6.1(a)(iii)(1), or of a submission pursuant to clause 6.1(a)(iii)(2), the *Council* may at its sole discretion:
- i. grant the further time sought; or
  - ii. accept the submission made (as the case may be); or
  - iii. or revoke the *authority*.
- d. *Council* may revoke *authority* to obtain immediate efficacy and effectiveness of the *flood protection works* or in the event of pending or current flood events.
- e. Nothing in this clause applies to a revocation of authority under clause 6.1(d).

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### 6.2 Offence

- a. Every person commits an offence against this Bylaw who -

- i. Commits a breach of any clause of ~~RuleSection-3~~ or 4 of this Bylaw;
  - ii. Causes or permits to be done anything in contravention of any clause of ~~Section-Rule 3~~ or 4 of this Bylaw;
  - iii. Omits to do anything required by this Bylaw or the conditions of the relevant *authority*;
  - iv. Fails to comply with any written notice served under this Bylaw.
- b. Every person who commits an offence against this Bylaw is liable to the penalties prescribed by section 242 of the Local Government Act 2002.

### **6.3 Notice to Remedy**

The *Council* may, by written notice, require any mitigation or remediation considered necessary by *Council*, in relation to the contravention of any clause of ~~Section-Rule 3~~ or 4, or the conditions of the relevant *authority*, in the time, and in the manner stated in the notice, at the cost of the *owner*.

### **6.4 Removal of Works**

The *Council*, or any agent of the *Council*, may remove or alter any work or any thing, constructed or being in contravention of any provision of this Bylaw, or any conditions of an *authority*, and may recover the costs incurred by the *Council* in connection with the removal or alteration.

The undertaking of this action shall not relieve any person from liability to any penalty incurred by reason of the breach.

## **First Schedule - Drains and Overland Flow Paths**

Maps of *scheduled drains* and *overland flow paths* owned by or under the control of the *Council*, to which this Bylaw applies.

Lower Clutha Scheduled Drains

Tokomairiro Scheduled Drains

East Taieri Scheduled Drains and Overland Flow Paths

West Taieri Scheduled Drains and Overland Flow Paths

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## **Second Schedule – Defences Against Water and Excavation-Sensitive Areas**

Maps of *defences against water* and *excavation-sensitive areas* owned by or under the control of the *Council*, to which this Bylaw applies.

Lower Clutha Defences Against Water  
Lower Taieri Defences Against Water and Excavation-Sensitive Areas  
Leith Lindsay Defences Against Water  
Alexandra Defences Against Water  
Albert Town Defences Against Water

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## Third Schedule - Floodways

Descriptions and maps of *floodways* owned by or under the control of the *Council*, to which this Bylaw applies.

Lower Clutha Floodway  
Lower Taieri (Upper Pond) Floodway  
East Taieri Silver Stream Floodway  
Lower Taieri River Floodway  
Miller Road and Otokia Road Contour Channel Floodways  
Hendersons and Waikoura Creeks Floodway  
Hilderthorpe Floodway

### Lower Clutha Floodway

This channel provides flood relief to Balclutha, shortening the flow path of the Koau branch between the Bifurcation (point at which the Clutha splits into the Koau and Matau branches) and Finegand. It runs in a SSE direction, is approximately 500 m wide and 1.9 km long. The floodway is grass-lined (pastoral farmland when not in operation) with floodbanks on either side and a lower height sill at the bottom end (to prevent the bottom end being drowned in river flows less than the operating threshold).

### Lower Taieri (Upper Pond) Floodway

The Lower Taieri Flood Protection Scheme incorporates two flood storage ponds designed to maximise the peak flow the Scheme can accommodate. The northern most pond (upper pond) has a defined spill point from the Taieri River. A demountable barrier structure (with collapsible props) gives some control to the discharge but most of the spillway is 'uncontrolled' (flatter riverward batter and a steeper landward batter lined with rock, with concrete grouting). Although not physically delineated, the area of pastoral farmland between the spillway and Riverside Road conveys flow spilled from the Taieri River to the upper ponding area.

### East Taieri Silver Stream Floodway

Although not physically delineated, this floodway encompasses an area adjacent to the Silver Stream (Gordon Road) Spillway. This floodway conveys flow spilled from the Silver Stream which eventually discharges to the Upper Ponding Area via gated culverts through the cutoff bank.

The Silver Stream (Gordon Road) Spillway is a lowered section (approximately 1km long) of the true right Silver Stream floodbank between Gordon Road and Riccarton Road. This section is a design feature of the Lower Taieri Flood Protection Scheme. It is designed to mitigate the flood risk for Mosgiel (protected by the true left floodbank) by allowing spilling over the true right floodbank. ~~Spill starts when the flow in the Silver Stream reaches approximately 170 m<sup>3</sup>/s.~~

### Lower Taieri River Floodway

The Taieri River Floodway defines the area of river berm between Allanton and the Waipori River confluence that assists with the conveyance of flood flows. The true left extent of the floodway between Allanton and the Waipori River confluence is defined

by higher ground (lower than the opposite bank floodbank crest level). The true right side of the river from Otokia to the Waipori River confluence is defined by floodbanks or elevated sections of State Highway 1 (locally known as the "Flood Free Highway").

**Miller Road and Otokia Road Contour Channel Floodways**

Two uncontrolled spillways are located on the Contour Channel left bank, one just upstream of Miller Road and one immediately downstream of Otokia Road. These spillways consist of a lowered (relative to adjoining sections) section of Contour Channel floodbank. Thus when the water level in the Contour Channel reaches the spillway crest level, spill will begin automatically. The spilled water occupies the floodways before reaching the old course of Lee Creek (now a scheduled drain). This water eventually reaches the Waipori pump station and is discharged into Lake Waipori.

**Hendersons and Waikoura Creeks Floodway**

The Hendersons and Waikoura Creeks floodway consists of artificially constructed channels designed to collect flood flows on the north-eastern side of Georgetown-Pukeuri Road (SH83) and convey them to the Waitaki River during significant rainfall events. This floodway is not part of a wider flood protection scheme.

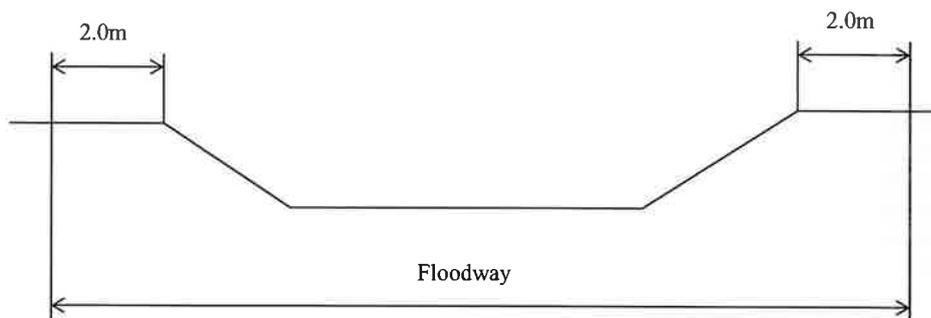
The floodway starts at the artificially constructed sections of the creeks and join at Irvine Road where combined, they follow Irvine Road for approximately 800 metres then follow Jardine Road for about 2,500 metres before entering the Waitaki River through a drop structure.

**Hilderthorpe Floodway**

The Hilderthorpe Floodway is a channel, both natural and artificially constructed, designed to convey overland flow from Gray Road to the Hilderthorpe Race alongside Steward Road during significant rainfall events. This floodway is not part of a wider flood protection scheme.

The natural sections of the channel follow the course of a paleochannel.

The map indicates the extent of the Hilderthorpe floodway. The general cross section of the Hilderthorpe floodway is shown below.



# Bylaw ~~Approval Authority~~ Application Form



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## 6. Assessment against the assessment criteria

Please assess the effects of the proposed works against the following assessment criteria.

Capacity:

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Stability, scour and erosion risk:

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Access for inspection and maintenance purposes:

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---

Water quality:

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Duration of authority sought

Proposed start date:

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Proposed end date:

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**Signed** \_\_\_\_\_

**Dated** \_\_\_\_\_

*Note: It is the applicant's responsibility to ensure they have all the required permissions from Otago Regional Council and other regulatory agencies, such as District Councils, Department of Conservation, Heritage New Zealand Pouhere Taonga. Please contact these agencies to discuss your proposal.*



# Bylaw ~~Approval Authority~~ Application Form



## 1. Applicant(s) Details

Name: \_\_\_\_\_

Organisation name (if applicable): \_\_\_\_\_

Are you:  the owner  an occupier  agent on behalf

### Key contact details for applicant:

Postal Address \_\_\_\_\_

\_\_\_\_\_ Post Code \_\_\_\_\_

Phone Number Business \_\_\_\_\_ Private \_\_\_\_\_

Mobile \_\_\_\_\_ Fax \_\_\_\_\_

Email Address \_\_\_\_\_

### Key contact details for consultant (if applicable):

Postal Address \_\_\_\_\_

\_\_\_\_\_ Post Code \_\_\_\_\_

Phone Number Business \_\_\_\_\_

Mobile \_\_\_\_\_

Email Address \_\_\_\_\_

## 2. Property to which this Bylaw ~~Authority Approval~~ Relates

Property Address \_\_\_\_\_

Legal description: \_\_\_\_\_

Co-ordinates (NZTM 2000): Northing - \_\_\_\_\_ Easting - \_\_\_\_\_

## 3. ~~Section~~Rule(s) of the Bylaw to which this ~~Approval Authority~~ Relates

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Appendix Two: Bylaw Approval Authority Application Form**

**Fourth Schedule – Groynes, Cross-Banks, Training Line,  
~~Anchored Tree Protection and Plantings~~ and  
Flood Protection Vegetation**

Maps of groynes, cross-banks, training line, ~~anchored tree protection and plantings~~  
and flood protection vegetation owned by or under the control of the *Council*, to which  
this Bylaw applies.

Lower Waitaki River Groynes, Cross-Banks and Flood Protection Vegetation,  
~~Anchored Tree Protection and Plantings~~  
Shotover River Training Line and Flood Protection Vegetation

**Appendix One: Diagrams referencing Activities requiring Bylaw Authority**

Note: These diagrams are for illustrative purposes and are not to scale.

Figure 1: Scheduled drains and overland flow paths

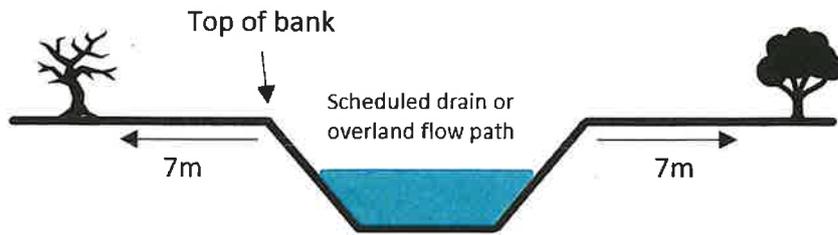


Figure 2: Defences against water - floodbank

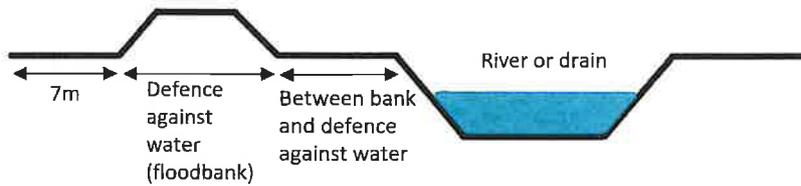


Figure 3: Defences against water - rock buttress

