

A guide to the new national and regional rules for freshwater

# Fish passage

The new regulations in the National Environmental Standards for Freshwater manage the placement, use, alteration, extension and reconstruction of culverts, weirs and other instream structures in order to protect the passage of fish in waterways.

There are specific design standards in the national regulations and the proposed Southland Water and Land Plan for culverts and weirs that you'll need to meet to remain a permitted activity. If you can't meet one or more of the conditions, then you'll need to apply for a consent.

Give our consents team a call if you want to chat through your own situation or anything on this list.

There are also new reporting and information requirements for **all of these activities whether a consent is needed or not.**

## ► Culverts

### National Environmental Standards for Freshwater criteria

- The culvert must provide the same passage for fish upstream and downstream as would exist without a culvert (except while undertaking works)
- It must be laid parallel to the slope of the bed of the river
- The mean cross-sectional water velocity in the culvert must be no greater than that in all immediately adjoining river reaches
- Culvert width where it intersects with the bed of a river ( $s$ ) and the width of the bed ( $w$ ) both measured in metres, must compare to the following:
  1. where  $w \leq 3$ ,  $s \geq w$
  2. where  $w > 3$ ,  $s \geq (1.2 \times w) + 0.6$
- Bed substrate must be present over the full length of the culvert and stable at the flow rate at or below which the water flows for 80% of the time
- The culvert provides for continuity of natural processes (such as movement of sediment and debris).

### Proposed Southland Water and Land Plan criteria

- Culvert meets the general conditions in Rule 55A
- The maximum diameter of a single culvert is 1200 mm
- It's designed to pass flood flows and does not increase risk of flooding to neighbouring properties
- The fill over any culvert is not greater than 4 metres
- Any structure is not within any mataitai, nohoanga or taiapure
- For the maintenance of the culvert, the conditions of Rule 66 must be met
- For the alteration or extension of a culvert, the conditions of Rule 67 must be met
- For the removal of a culvert, the conditions of Rule 68 must be met

### Reporting and information

- Regulation 62 and 63 of the national regulations contain a schedule of reporting requirements for all permitted activity conditions other than for the use of the culvert.

If a culvert is to be installed in a wetland, then it needs to meet the requirements of the proposed Southland Water and Land Plan as well as the wetland regulations in the national regulations to be permitted.

The permitted activity conditions for weirs set out in the national regulations do not overlap with the conditions in Rule 60 of Southland's proposed plan. Both the national



regulations and Rules 55A, 60, 66, 67, and 68 apply for any installations, use, extension or reconstruction of a weir.

The use of customary weirs is excluded from the national regulations but are required to meet the permitted activity conditions of Rule 60 in Southland's proposed plan.

## ► Weirs

### National Environmental Standards for Freshwater criteria

- Weirs must provide the same passage for fish upstream and downstream as would exist without the weir (except while undertaking works)
- The fall of the height of the weir must be no more than 0.5m
- The slope of the weir must be no steeper than 1:30
- The face of the weir must have roughness elements that are mixed grade rock of 150 to 200mm diameter and irregularly spaced no more than 90mm apart to create hydraulically diverse flow structure across the weir (including any wetted margins)
- The weirs lateral profile must be V-shaped, sloping at the banks, and with a low-flow channel in the centre, with the lateral cross-section slope between 5° to 10°

### Proposed Southland Water and Land Plan criteria

- The weir meets the general conditions in Rule 55A
- If the maximum height of the weir exceeds 4 metres or the impoundment volume exceeds 20,000 cubic metres of water or other fluid, a building consent is obtained for the weir prior to construction

- The weir is located below a catchment area of less than 500 hectares
- The weir is not located upstream of any railway, formed public road or residence where these are likely to be affected by any failure of the structure
- The weir has a spillway, or an auxiliary spillway, that is capable of safely conveying flood flows
- The weir does not impound water or adversely affect drainage beyond the landholding on which it is constructed, unless agreed to in writing by affected landowners
- The discharge from the weir is to the original channel and does not cause significant erosion of, or depositions diameter of a single culvert is 1200 millimetres
- The weir is designed to pass flood flows and does not increase the risk of flooding to neighbouring properties
- The fill over any culvert is not greater than 4 metres
- Any structure is not within any mataitai, nohoanga or taiapure

### Reporting and information

- Regulation 62 and 63 contain a schedule of reporting requirements for all permitted activity conditions other than for the use of the weir.