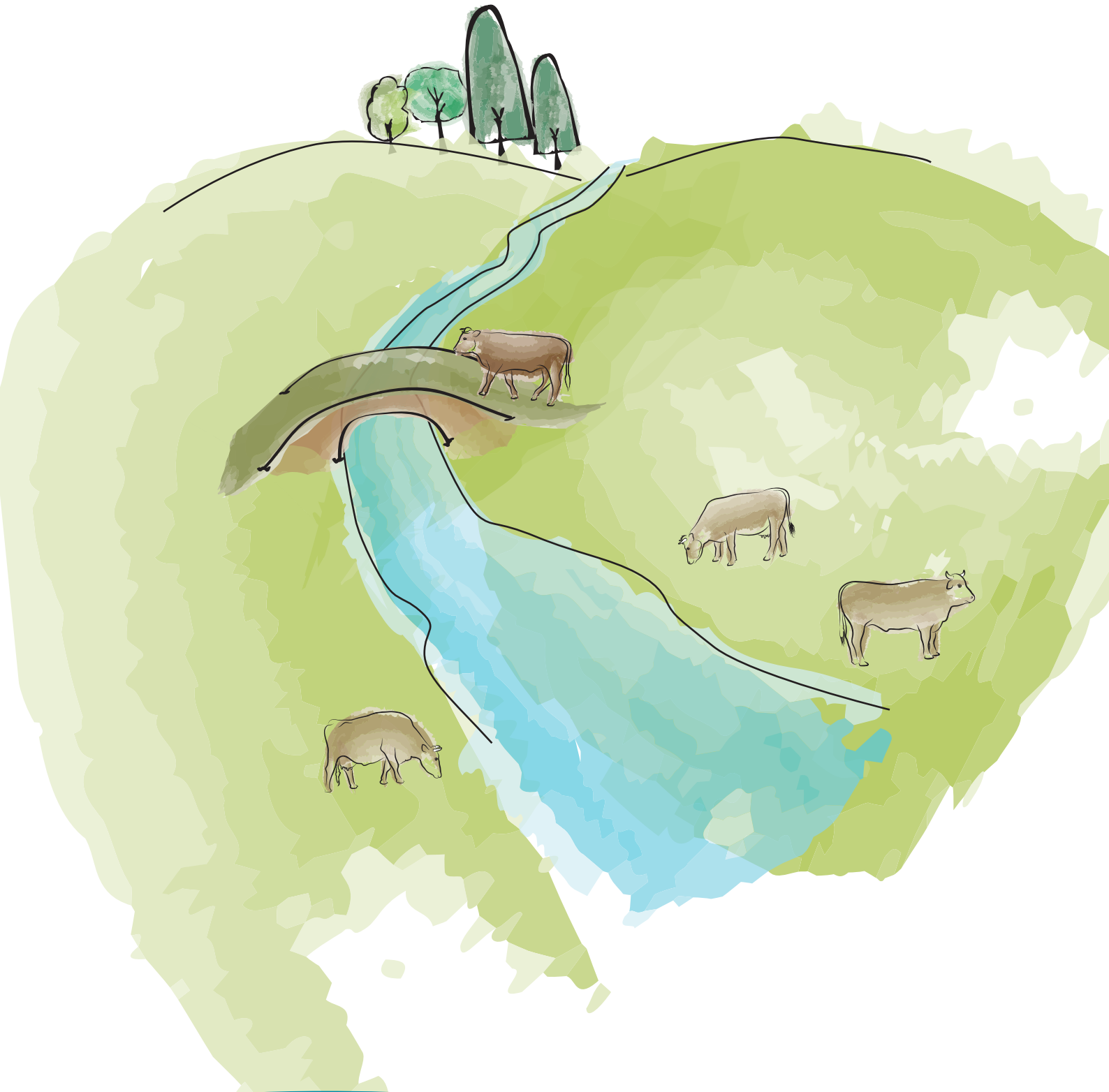


New rules for culverts



You don't need a resource consent if you meet all of the requirements in the Tairāwhiti Resource Management Plan (TRMP)*. Requirements include:

Location

- The catchment area of the stream is less than 100 hectares.
- The culvert isn't in a wetland.
- The culvert isn't in a waterway in the city, a township or in an Outstanding Waterbody.¹
- If the culvert is in an important native fish area² you need to let Council know 5 days before construction.
- If the culvert is a Council drainage area³ you need to let us know 10 days before construction and comply with our construction guidelines.⁴

Design

- The culvert diameter is at least 450mm.
- A 1:5 year flood can pass through the culvert.
- You include provisions for overflow.
- It has a maximum fill height of 2.5metres
- Inlets and outlets must be protected against erosion.
- The natural course of the stream isn't altered and fish passage is not impeded.
- There's no increase to bank erosion or destabilisation of the riverbed.

* See Chapter 6.3.2.1 of the TRMP

1 See section G18 of the TRMP

2 See section G15 of the TRMP

3 See section G22 of the TRMP

4 GDC Culvert Construction Guidelines for Council Administered Drainage Areas 2014

Installation

- Installed at a minimum of 100mm below the level of the bed
- Sediment levels and fish passage is returned to normal within 48 hours of starting work
- Equipment is removed from the river bed when work is completed
- The new culvert is regularly maintained and checked for blockages

Best Practice

There are a several things to consider when you're putting in a stream culvert.

- **Get your sizing and installation right.**
 - Avoid spending more money to fix a mistake or botched job, as well as minimising erosion and damage to the stream.
- **Help the fish**
 - Poor culvert design and installation can restrict fish passage, reducing the amount of habitat available for fish – which equals less fish.
- **Good design**
 - Choose a stable site with a minimum stream bed slope. Consider building a spillway to cope with extreme floods.
 - Make sure your culvert is at least as wide as the stream bed during normal flows to avoid 'perched' outlets or other erosion problems.
 - Make a rock ramp below the culvert or secure some rocks or small concrete blocks in the culvert bed. These can reduce water speed and provide resting areas for fish, but make sure they won't cause the culvert to become blocked by debris during floods
- **Maintain it**
 - Regular checking and maintenance to keep the water flowing and making sure there's no loose debris that can it block up during a flood.

