



Fish barrier Factsheet



What is a fish barrier?

A structure that can help recover native fish populations, protecting them from exotic fish.

Why build a fish barrier on Thomsons Creek?

Thomsons Catchment Project is installing a fish barrier in-stream to stop competing species, like trout and perch, from moving up the section of Thomsons Creek that runs through the Williams, Mansons, Stratfords, Websters and Hill family farms.

This work will help protect the biodiversity of Thomsons Creek and the native fish that make their home in the waterway. The key species we are protecting is the Central Otago roundhead galaxias, one of New Zealand's most endangered fish species.





A survey of the entire catchment in 2021 highlighted the significant decline in galaxiid numbers. A subsequent management plan developed by Otago Regional Council, Fish & Game, the Department of Conservation and freshwater ecologist Matt Hickey identified that a fish barrier on the main stem of Thomsons would stop trout moving upstream to the main galaxiid site. Upstream of Mawhinney Road the creek naturally runs dry over summer – as it goes underground and stops trout in the headwaters coming downstream at the times they are most likely to move.

With the fish barrier in place, the galaxiids are protected.

What do these fish barriers do?

The main fish barrier on Thomsons Creek is a 1m high concrete weir that has been built to protect the biggest remaining population of Central Otago roundhead galaxias in Thomsons Creek.

There are also two perched culverts due to be installed by 2024. These will be installed thanks to the Morgan and Naylor families, and will act as barriers to protect smaller populations.

The weir is designed to withstand the large floods that occur in Thomsons Creek.

The concrete lip below the weir prevents the formation of a pool, which would otherwise assist the trout to jump up the weir. The front face is square to the floor. The rocks behind and alongside the weir protect it from flood damage.

Who is involved in the fish barrier construction?

The fish barriers have been specially designed with input from ecologist Matt Hickey and the Department of Conservation and the Otago Regional Council and have been consented by Otago Regional Council.

Thomsons Catchment Project will monitor the protected section to ensure the structures are working to keep out the competing species.

Three local firms are involved in the fish barrier weir structure:

- ▶ Mt Aurum Engineering designed and managed the build of the main fish barrier.
- ▶ Breen Construction built the barrier, including the prefabricated concrete parts.
- ▶ Central Excavating prepared the site for installation and placed the rocks and returned the site and creek to its course once work was done.



What's next?

Putting in a weir in 2023 is just the beginning. Otago Regional Council scientist, Pete Ravenscroft, is electric fishing upstream of the weir to remove all trout and perch, with help from the Department of Conservation and Fish & Game. The team will return each autumn to monitor whether trout and perch numbers remain eliminated.

There are a number of other creeks in Central Otago where remaining galaxiid populations are sandwiched between upstream and downstream populations of trout.

The Thomsons Creek weir is an opportunity to share learnings and protect more native fish populations.

The Fish Barrier will remain in the ownership of the Manuherekia Catchment Group. Thomsons Catchment is part of the Manuherekia Catchment Group.



A great community and agency effort

This project would not be possible without the active support of landowners. A huge thanks to Mike and Amanda Williams and their family for having the fish barrier on their property. Also, to the Mansons, Websters, Stratfords and Hills for supporting the electric fishing to remove trout and perch.

This weir was funded by the Thomsons Catchment Project Ministry for Environment Jobs for Nature fund, with support from Otago Regional Council, and in-kind expertise from Brendan Sheehan (Mt Aurum Engineering) and the late Matt Hickey. It required consent from Otago Regional Council, and approval from affected parties Department of Conservation, Fish & Game Otago and Aukaha.

Find out more about the project

You can follow the fish barrier creation on the Thomsons Facebook page or at [mcwater.co.nz/Thomsonsproject](https://www.mcwater.co.nz/Thomsonsproject) or sign up to our newsletter.



Thomsons Catchment Project – you can get involved too.

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OR FIND OUT MORE ABOUT US AT

www.mcwater.co.nz/Thomsons-Catchment-Project

www.otagocatchments.co.nz/thomsonscatchment

Te Taiao:

Thinking about the environment in this way encourages us to aspire to a future where humanity and the natural world sustain each other in an interconnected relationship of respect, and we all act as land stewards.