



## Quarterly Update March 2024

### Nau mai and welcome

We're well into 2024 and continuing to provide more resilience for New Zealand's river communities. In this edition we take a look at three projects around the South Island that received co-funding from Kānoa - Regional Economic Development & Investment Unit to help fast-track them to completion.

### One graduate's journey from wanderlust to engineering Council

#### Tasman District Council

The path to Aleisha's role as a Graduate Project Engineer at Tasman District Council is as diverse as the projects she's now involved in. With the establishment of the graduate position enabled through funding from Kānoa - Regional Economic Development & Investment Unit, Aleisha shares her journey, aspirations, and some of her learnings.

With a curiosity that spans cultures and landscapes, Aleisha's path to her role as a Graduate Project Engineer at Tasman District Council is as diverse as the projects she's now involved in. Her Civil Engineering Degree was earned at distance, meaning travelling to Australia throughout her studies.

Aleisha's journey wasn't confined to lecture halls; she found her passion for civil engineering by exploring the intricacies of infrastructure on her travels - from the ancient Charles Bridge in Prague, to a sinking pillar in Berlin, and more recently, researching new approaches in New Zealand that combine environmental and 'grey' infrastructure (concrete structures such as roads, dams and sea walls) - these experiences have ignited her passion for engineering and environmental sustainability.

Aleisha's role includes project management and offers a dynamic blend of challenges and rewards. From delving into the complexities of drainage systems, to collaborating with site engineers on bus stop designs,



each day presents a new puzzle to solve. Yet, it's the tangible impact of her work that fuels her - witnessing plans materialise into structures that serve and protect her community.

Aleisha's work has included involvement in the Lower Motueka River Floodbank Improvement Project, a Resilient River Communities project which involves strengthening several sections of the Motueka River stopbanks. The project has been supported by \$7.5m of funding from Kānoa - Regional Economic Development & Investment Unit. Originally built in 1956, the existing flood protection scheme protects

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the townships of Motueka and Riwaka, which are both built on the river's floodplains, from frequent flooding in the lower reaches of the river. This project will strengthen the stopbanks back to full effectiveness and improve flood resilience for Motueka and Riwaka. The Motueka River catchment is one of the largest river systems in the Tasman District.

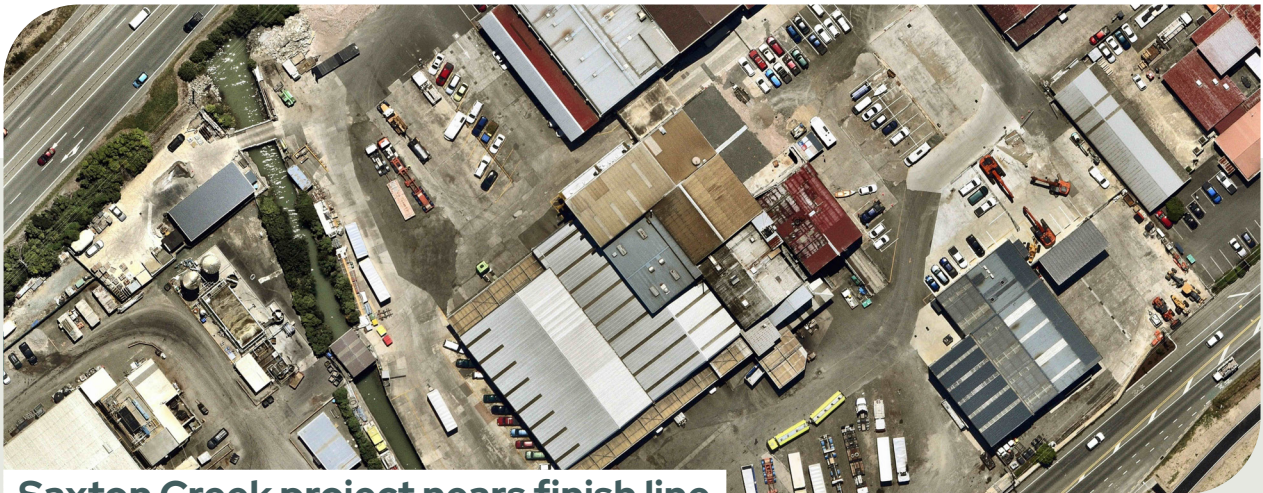
Rekindling her ties with her iwi, Aleshia has also immersed herself in Te Reo courses, connecting her to her iwi and marae. Aleshia's aspiration is to weave Te Ao Māori, the Māori worldview, into contemporary engineering solutions. Inspired by Māori practices and

knowledge, she envisions a future where engineering infrastructure coexists with the environment.

For those venturing into similar territories, Aleshia's advice is as practical as it is profound: stay motivated, network relentlessly, and never shy away from a challenge.

And to those who helped fund this opportunity, she is grateful to them for providing this next step in her career.

**Find out more about the Resilient River Communities project in the Tasman District.**



## Saxton Creek project nears finish line

**Nelson City Council**

**Nelson's Saxton Creek project is nearing completion of its fourth and final stage. The project was significantly accelerated by a \$7.5m investment from Kānoa - Regional Economic Development & Investment Unit and will shift the level of protection in the area from being able to manage a 1-in-5-year flood, to a 1-in-100-year flood.**

Extreme weather events in December 2011 and April 2013 caused significant flooding to both commercial and residential properties in Saxton, Nelson. The 2015-2025 Long Term Plan identified the need for large-scale work to minimise the chance of this occurring again.

The Saxton Creek project began in 2015. Due to the extent of the works required and budget constraints, the project was divided into stages. In 2022 the project was significantly accelerated by a \$7.5m investment from Kānoa - Regional Economic Development & Investment Unit, enabling the fast-tracking of the **Stage 4 work** to upgrade Saxton Creek's channel flood protection capacity and the capacity of the culverts between Main Road Stoke and Whakatu Drive.

The works offer protection to Main Road Stoke (a main access road) and the large commercial and industrial properties in Wakatu Industrial Estate. Flooding from the 2013 event alone caused economic loss of over \$1.5m, taking out 30m of security fencing along Main Road Stoke and causing significant damage to multiple businesses in the estate. Main Road Stoke and State Highway 6 (Whakatu Drive) are also key lifeline connection roads in the area and need to be accessible during major weather events.

The flood protection works will ensure industries critical to the region's economy can operate, including a major meat processing facility, large truck specialist, technical education centre, numerous building trade companies and storage facilities. The overall Saxton Creek Upgrade has enabled the development of land alongside the Saxton Creek upstream of Main Road Stoke which has provided a significant new residential area for the city and improved the amenity of the stream.

**Find out more about this project.**

**▶ Watch the Stage 4 video**



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## New stopbank enhances Gore's flood protection

### Environment Southland

All areas of Gore now have equal levels of flood protection thanks to a new stopbank constructed along Ontario and Toronto streets using gravel taken from a 'gravel island' located just downstream of the Mataura Bridge. The stopbank is one of six Resilient River Communities projects in Murihiku Southland, supported by Kānoa – Regional Economic Development & Investment Unit.

In a significant stride towards enhancing Gore's resilience against floods, Environment Southland has successfully completed the construction of a new stopbank along Ontario and Toronto streets. This new infrastructure replaces an aging concrete flood wall, ensuring a consistent level of protection similar to other stopbanks safeguarding the township.

The construction process utilised gravel sourced from a gravel island downstream of the Mataura Bridge with approval granted by landowners and mana whenua, Hokonui Rūnanga. This strategic use of resources not only facilitated the construction, but also addressed the increased gravel buildup in the Mataura River below the bridge after flooding in February 2020.

By removing excess gravel, the project also aims to enhance the river's capacity to accommodate future floodwaters at Mataura township.

Efforts were made to reinstate fencing and hydroseed (spray with a combination of grass seed, water and mulch) safeguarding the integrity of the stopbank. Proactive measures were also taken to remove high-risk trees along River and Richmond streets, to further protect Gore's stopbanks. The upgrade of flood protection for Gore is part of a comprehensive programme of climate resilience work planned for the Mataura River catchment.

The momentum towards bolstering flood defences in Southland extends beyond Gore. Environment Southland has commissioned a 2D Hydraulic model of the Mataura River flood hazard covering Gore, Mataura, Waimumu and Wyndham. The model will support greater efficiency in flood protection design work (for Stage 2) and will mean that Environment Southland can run different scenarios to determine possible solutions and engage with the affected communities to agree on the best approach. This will also enable the modelling of the effects of different infrastructure within a waterway and the risks these could pose with debris buildup for different flooding scenarios, including the main road and rail bridge in Gore that provide vital links between Murihiku Southland and the rest of the country.

Kānoa – Regional Economic Development & Investment Unit is supporting **six projects in Southland** as part of the Resilient River Communities initiative.

[Read more about this project.](#)



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## About Resilient River Communities

In 2020, Kānoa released \$217m to co-fund 55 climate resilience projects, with a total cost of \$312m, they are collectively known as the Resilient River Communities projects. Resilient River Communities is a joint initiative between Kānoa - the Regional Economic Development & Investment Unit, regional councils and local

authorities focused on developing and upgrading vital river management and flood protection schemes in Aotearoa.

More information about these projects can be found online at [www.resilientrivers.nz](http://www.resilientrivers.nz)



## Resilient River Communities

### Video

This short clip looks at the projects that are taking place around Aotearoa, why the Resilient River Communities programme was established and the people who are passionate about its success. Hear more about the effects of flooding on communities, as well as insurance implications and social outcomes from those directly impacted around New Zealand.

**Watch the clip here.**



## Spread the word

If you know someone who would like to be in the loop on the latest Resilient River Communities news, please forward this email to them so that they can subscribe using the button [here](#).