

1

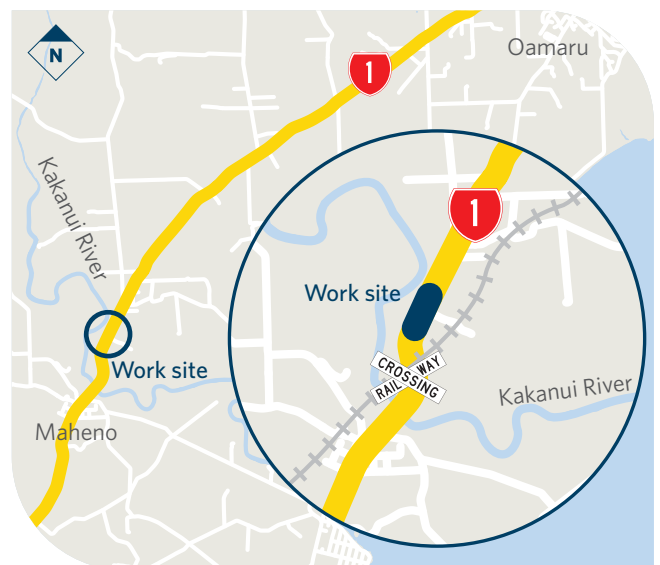
# Kakanui flood protection project



[nzta.govt.nz/projects/sh1-kakanui-flood-protection-improvements](https://nzta.govt.nz/projects/sh1-kakanui-flood-protection-improvements)

Work on greatly improving flood protection involving raising a 350-metre low-lying area of SH1 near the Kakanui River south of Oamaru, by 1.25m, gets into full swing in early January 2024.

The \$3 million contract for this project, which will last 6–10 months, which is being delivered by the NZ Transport Agency Waka Kotahi (NZTA), was awarded in November to Oamaru's Whitestone Contracting Ltd. Since then, it has been carrying out site preparations, including earthworks, ahead of work on the highway starting early in the New Year.





*On site highway road shoulder work looking south toward Maheno.*

Changing weather patterns are increasing the frequency of large floods, which occur about every three to five years, that can result in the closure of this section of road.

This stretch experiences periodic closures of the highway due to flooding from the Kakanui River. Closures can disrupt people's travel plans for up to two days. The floods have a major impact on communities and businesses who depend on the goods and services moved on this key highway connection.

Considerable planning has gone into ensuring smooth and efficient traffic management, which is important to the success of the project. While temporary speed limits have been in place, the team has managed to maintain two-way traffic flows.

Traffic management has been removed for the Christmas-New Year holiday break and will resume on 8 January 2024, allowing for normal traffic conditions on this short section of highway at a busy time of year.

When work on this project starts again in the New Year, please allow extra time for your journey, as traffic management measures will be operating to keep people safe. These measures include traffic signals and single lane vehicle flows, all of which will remain in place until the project is completed in mid-2024.

## The work

- Raising a 350-metre section of SH1 by up to 1.25 metres through the Kakanui River floodplain.
- New road surfacing and markings.
- Better access to historic Clarks Mill and construction of a new bridge structure over the existing, historic Mill Stream Culvert.
- Greater safety from a wider raised road featuring 300 metres of safety barrier on its western side.



*Site clearance work at the northern end of the project area.*

A rail crossing at the southern end of the site remains operational. If you are driving on this section of highway, stay safe and follow the directions of the traffic management people at both the temporary on-highway traffic lights and rail crossing signals.

In February and March 2024 there will be full road closures. The purpose of these closures is to facilitate the installation of two substantial concrete precast panels. The first closure is planned for early February and the second for early March. The highway will be closed from 8:00 pm until 2:00 am, and will span from Island Stream Road to Woolshed Road, and an alternative detour route with a duration of up to 15 minutes will be in place.

Several options were investigated to reduce the flood risk on this vulnerable section of highway, with no practical detours. Those that could be used, involve hours of extra travel and hundreds of additional kilometres in travel, all adding considerably more cost to people's journeys.

Of the options investigated to reduce flooding on this section of SH1, the best involved retaining the current highway layout and raising the road height by just over a metre. Our modelling shows this increase in highway height significantly reduces the amount of floodwater covering the highway. This work will mean that SH1 should avoid flooding in a one in 50-year flood and no closures for the more regular three to five-year floods.

## The benefits

- Fewer flood related disruptions with the highway passable during one in 50-year floods.
- Reduced flood-related delays on the main road freight route between Canterbury and Otago.
- Improved road access to keep communities connected during major flooding.
- Greater resilience on a flood-prone section of SH1 between Oamaru and Dunedin.