

2 5 Recommended resilience improvements Eskdale Information sheet

July 2024

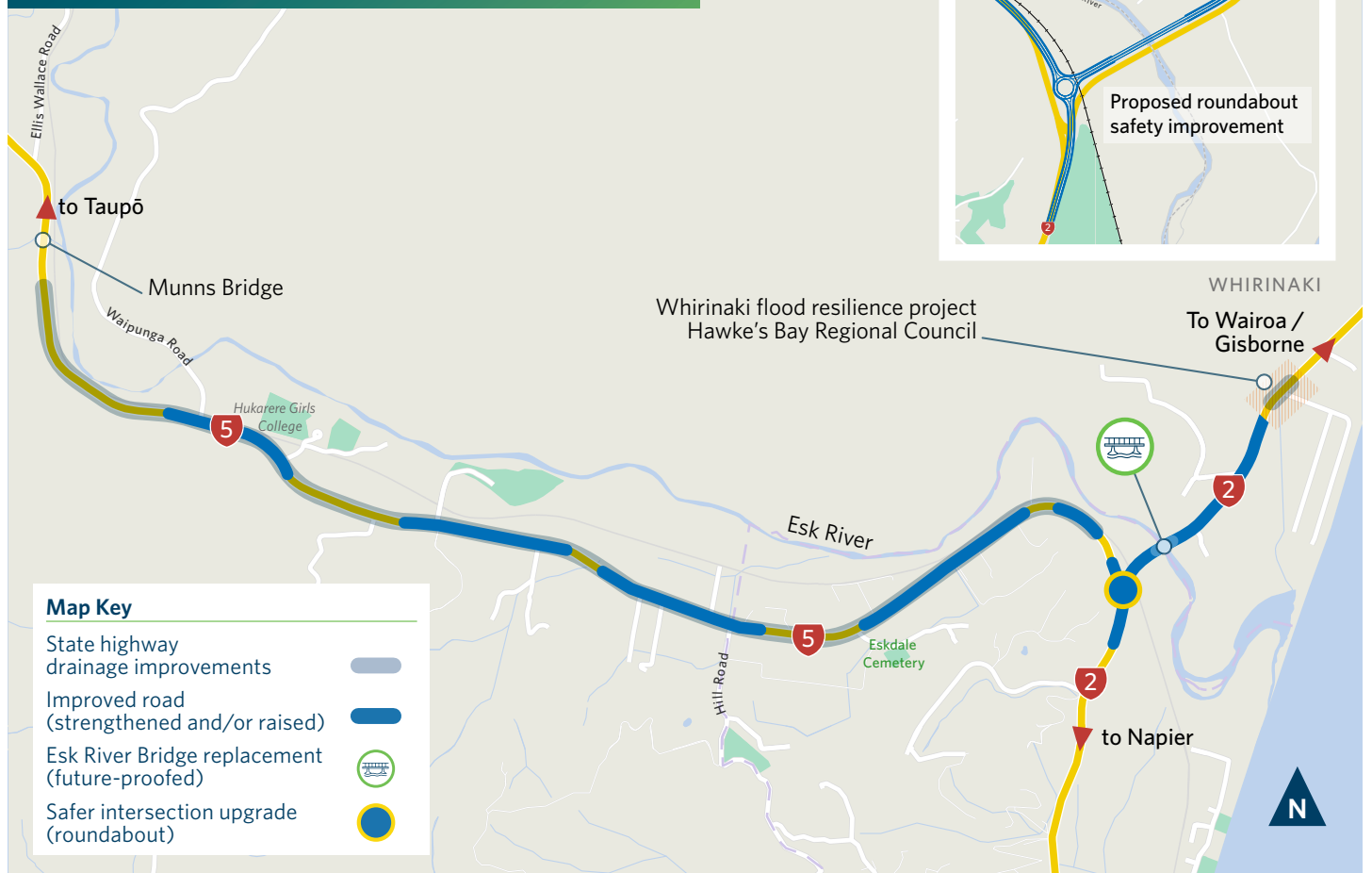
The Esk Valley was one of the hardest hit areas in Hawke's Bay after the Esk River burst its banks, causing extensive damage to the roads.

In Cyclone Gabrielle, both SH2 and SH5 were overtopped by floodwaters. SH2 and SH5 were closed for weeks and disrupted for months while silt and woody debris was cleared, and damaged pavement and embankments were repaired. This amounted to over 3,000 hours (the equivalent of more than four months) of disruption. Each day that SH2 and SH5 are closed results in \$1.5m of Gross Domestic Product (GDP) loss to the regional economy.

Along with carrying out urgent recovery work, we've looked at what could be done to make state highways more resilient in the future.

We presented some ideas in March and April 2024 and we wanted to hear from stakeholders and the public on these concepts. We have used your feedback and continued our technical work to refine possible options.

SH2/SH5 Eskdale Recommended Option



Rebuild and resilience projects are subject to NZTA Board endorsement and funding.

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Esk Valley - SH5 damage

The preferred rebuild option for the Esk Valley

Our recommended rebuild option for SH5 is to improve highway drainage and to raise and strengthen the road at specific locations where it is vulnerable to more frequent flooding. This will reduce the frequency of floodwaters overtopping the road, depositing silt and woody debris, and damaging the pavement.

On SH5 there will be a 40-50% reduction in disruption duration and closures. Closures will be reduced to between 1 - 4 weeks following a major flooding event.

For SH2, our recommended option includes levelling and strengthening the road between the Esk River Bridge and the Whirinaki Drain. This will reduce the frequency of floodwaters overtopping the road and minimise the damage during severe weather events. We are also working in close coordination with the Hawke's Bay Regional Council Whirinaki Project team, who are progressing with a scheme to raise SH2 over a new stop bank and improving drainage across the state highway.

On SH2 there will be a 95% reduction in disruption duration and no full closures. During major flooding events, significant reduction in disruption with only partial closures of up to 1 day expected.

Through our engagement, the community raised concerns regarding safety at the SH2/SH5 intersection. The recommended option includes upgrading the intersection to a single lane roundabout. This will reduce the number and severity of crashes at the intersection.

The SH2 Esk River Bridge is a critical link for people and freight connecting Gisborne, Wairoa and the Hawke's Bay to Taupō and the rest of the Upper North Island and is vulnerable to seismic and weather events. Our recommended option includes replacement of the bridge, providing long term resilience to this part of the strategic transport network.

The preferred rebuild option would require an investment of \$170 to \$230 million.



No new alignment

We know many people provided feedback with concerns about an offline (new alignment) option for SH5 through the Esk Valley, to the south of the flood plain. This option has been discarded by us because of high costs, length of time to construct, and impact on neighbouring landowners – including businesses and the school. This option is not recommended in the business case.

Recovery and response plans

While our recommended option will reduce the frequency and duration of disruption from the majority of flood events in the Esk Valley, the road will still be impacted during the most severe weather events. Our recommended option will increase resilience and enable a faster response and recovery. Transport emergency response plans and processes are being developed to ensure a rapid response to clear the road of silt and woody debris and repair any damage to the highway.

We are also proposing the relocation of road closure points to allow fast and safe closure of the state highways in a large event. New electronic sign boards are also proposed to support accurate and timely communication about closures and detours.



The recommended option will have the following benefits:



Reduced disruption and economic benefits: Up to 95% reduction of flooding related road closures. More reliable and secure lifeline access for people, freight and emergency services



Improved state highway flood resilience: Upgrading SH2 and SH5 through Eskdale means the transport network will recover quicker following natural hazard events



Safe and efficient traffic flow: SH2/SH5 intersection upgrade achieves a significant 67% reduction in crashes, improving the efficient movement of people and goods



Seismic resilience and lifeline connections: A new Esk River Bridge will future-proof this critical lifeline against longer closures following a large seismic event, retaining this economically significant connection between Gisborne, Wairoa and the East Coast to the Hawke's Bay



Reduced road closures and disruption durations: will give the community greater confidence in the availability of the transport network to access schools, emergency services and for employment

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Whakapā mai ■ Get in touch

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