

# One month since Gabrielle

## State of the network

### Then, now and into the future

It's now been just over one month since Cyclone Gabrielle came and changed lives, landscapes and lifelines.

Waka Kotahi NZ Transport Agency has swung into action, working with Civil Defence, Gisborne District Council, local contractors, consultants, mana whenua and service providers like Eastland Network to re-establish access as quickly and as safely as possible.

Here's a look at what was, what is and what will be for the Tairāwhiti state highway network.

#### SH2 Gisborne - Ōpōtiki

**The damage:** This route was cut off due to flooding in Te Karaka, and multiple slips on Otoko Hill (south of Matawai).



Flooding in Te Karaka on 14 February

**Our immediate response:** Being a critical route for freight bringing food, water, fuel and expert services into the region and into Wairoa, this was a priority route to re-connect.

We first conducted geotechnical investigations for the largest slip site to determine the safety of the area.

On 18 February it was first opened, though has remained vulnerable due to ongoing rain and multiple slips which have closed the road many times since.



A slow moving slip on Otoko Hill - There is enough room here to build a temporary lane around the slip, creating two lanes and allowing contractors to clear and stabilise the site

**Where we're at now:** Our focus now is on stabilising the road and removing the risk of road closure. There are still two major slip sites that need work — from cutting and benching (stabilising), to de-watering, and looking to cutting the toe of the slip back to contain it with barriers.

These are planned works which require a rolling road closure from 22–23 March. The road will be closed from 6:30am to 4:45pm with a 45 minute opening every 2 hours. However, it's short-term pain for long-term gain and the route will be more resilient as a result.

We have removed over 40 trees from slip sites to reduce risk of further damage.

We are also installing a weather station at one slip site so we can monitor rain, wind and other triggers for movement.

**Looking forward:** In addition to slip stabilisation, the road surface needs improving. Following an assessment, we'll be able to quantify the amount of work required and propose the best treatments.

In terms of medium and long-term resilience improvements, we'll work with communities, mana whenua and partners to determine the best approach.



Removing trees from high-risk areas to help stabilise the slip faces

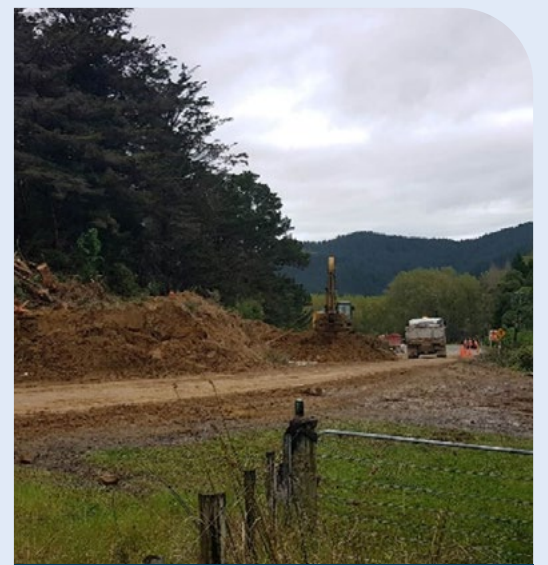
#### SH2 Gisborne - Wairoa

**The damage:** A major slip came down at Moumoukai, just north of Morere, covering both lanes and further north a blocked culvert caused a small lake to accumulate next to the road. The extra water in the area caused subsidence on the road and continuous movement.



A large slip covered both lanes just north of Morere

**Our immediate response:** Contractors from both Gisborne and Wairoa worked to clear the road as quickly as possible, and four days after the cyclone, we were able to open the road during daylight hours.



Contractors clearing the slip at Moumoukai

**Where we're at now:** Contractors have been manually pumping water from one side of the road to the other (where it can flow downhill) to protect the road. Now that the flood water has been pumped away, the silt-filled culvert needs replacing which will require a road closure. The design and method for this replacement is being finalised, and once agreed, will be communicated with as much advance warning as possible.

**Looking forward:** We'll be returning to general maintenance of the route.

## SH35 Gisborne - Pōtaka

**The damage:** Multiple sites were severely affected. Hikuwai #1 Bridge was washed away, and Mangahauini Gorge suffered major damage - multiple drop-outs as well as a large landslide that created a dam. The landslide material filled up the riverbed and redirected the water to run over the road.



Hikuwai #1 Bridge was severed after Cyclone Gabrielle



One of three major drop-outs in the Mangahauini Gorge

Silt and flooding covered the road on State Highway 35.

Just north of Te Puia Springs, there was a large washout where the river eroded the road.

With the high rain levels occurring in the days and weeks after the cyclone, the road kept moving and creating ongoing subsidence challenges.

The road remains cut off from just north of Tolaga Bay up to Te Puia Springs.

**Our immediate response:** To access the areas with the most severe damage, we first needed to clear the thick silt covering the road. From here we were able to identify and inspect the damage to inform our response plan.

The new dam at Mangahauini was a particular challenge with its stability uncertain until GNS conducted thorough geotech analysis, giving reassurance that works could begin here.

The washout north of Te Puia Springs was quickly repaired by Blackbees in order to gain critical access to Te Puia Hospital. Further work will be required here to create a permanent fix.

Many of the issues have not had quick, easy solutions and required thorough investigation and problem solving before works could start.



The washout at Makarika, north of Te Puia Springs, was temporarily repaired quickly by Blackbees

**Where we're at now:** Work has begun this week preparing for the installation of a Bailey bridge for Hikuwai #1. Construction will start next week, and the bridge is expected to open in May.

A community-led initiative is also underway to create a temporary diversion road across private land to open a vital temporary route due to the loss of the Hikuwai #1 Bridge. This road will allow commercial enterprises to recommence operations, as Bailey bridges have some limitations for regular heavy freight movements. We are working with Ngāti Porou and landowners around access for the public, and with Kuru Contracting to contribute some funding towards construction costs. This will draw from the \$250m of Crown funding allocated to emergency works (announced on 20 February). We will also continue to offer advice on safety measures and engineering standards to ensure the road is constructed to the correct standard.

We anticipate this secondary road could be used for two to three years, while a replacement bridge is constructed over the Hikuwai River.



A blessing ceremony was held on Friday 10 March before construction started at the Hikuwai #1 Bridge site.

Great progress has been made in the Mangahauini Gorge, with drop-outs repaired, and a temporary bypass to connect the broken section of SH35 through the gorge should be complete by April (weather dependent).

We continue making repairs to other damage on the network, caused by the cyclone.

Without being able to restore full access in the immediate days and weeks following the cyclone, we have supported Gisborne District Council and local contractors who have created temporary solutions. We are putting funding towards construction costs of the Ihungia-Mata Loop, and a maintenance contract is being established.

A big thank you to local contractors and roading crews who have worked tirelessly to clear, repair and keep people safe.

**Looking forward:** Along with other central government agencies and our council partners, Waka Kotahi is beginning to transition from the response to the recovery stage. Given the sheer scale of damage, an alliance model will be implemented across the wider East Coast, similar to what was in place in Kaikōura following earthquake damage. Discussions with councils are underway to understand regional requirements and contractors will be brought into the conversation along with communities and mana whenua to determine what the longer-term solutions for the roading network will look like.



Progress on the temporary bypass in the Mangahauini Gorge - taken 13 March

## Keep up to date

For more information on the road to recovery after Cyclone Gabrielle, check out [www.nzta.govt.nz/projects/connecting-tairawhiti/tairawhiti-recovery](http://www.nzta.govt.nz/projects/connecting-tairawhiti/tairawhiti-recovery)

**Before you travel** - check our Journey Planner tool at [journeys.nzta.govt.nz/journey-planner](http://journeys.nzta.govt.nz/journey-planner) for road closures, highway conditions and travel times.

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