

Kia ora

Our work repairing damage to the 180km North Auckland Line (NAL), has stepped up a gear with contractors now beginning work at multiple sites.

There were more than 200 damage sites along the NAL after the late January weather event and Cyclone Gabrielle – ranging from overslips, slumps, washouts and underslips.

The damage is on a huge scale and in many cases the fixes are complex. While slips onto the rail line can be relatively easily cleared, land falling away beneath the tracks can be difficult to remedy.

We have already undertaken numerous, more minor repairs and in September completed work on a series of large slips around Tahekeroa.

The slip prone soils in Northland mean progress has been hampered by ongoing rainfall over winter, with slips continuing to move in the sodden conditions. We also needed to complete a large amount of geotechnical assessment work.

Essentially, we needed the weather and land to settle and to fully understand what is happening below the ground before we could design and implement effective repairs in many places.

With improved weather and the geotech now complete, seven different contracting firms are in the process of starting work on around 110 moderate sites along the NAL. We are also well into designing engineered responses to a further 33 major damage sites.

At this stage we still expect Northland's rail line will remain closed into the New Year.

As mentioned previously, we have received a further \$50 million investment from the Government for resilience improvements along the NAL. This includes enlarging culverts and strengthening embankments that were not damaged in this year's weather events but could be in later ones.

Reopening the NAL is important for KiwiRail and for freight coming into and out of Northland. Not only do we need to get it open again, we are also committed to ensuring it is able to better handle what the future may hold.

If you have any questions about the work we're doing, please contact us at: northlandrail@kiwirail.co.nz

Eric Hennephof

Northland Rail Upgrade Programme Director

Progress repairing the North Auckland Line

Work is completed repairing more than 50 kilometres of line north of Swanson (to near Makarau), including repairs to significant washouts in north Auckland.

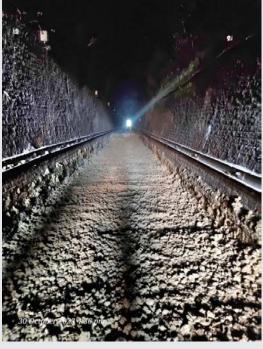
The massive Tahekeroa slip, where 35,000 cubic metres of earth slip fell close to 400 metres across the road and rail line, was completed in September.

Two other large slips in the area were also remediated.

Repairs are getting underway



During this year's weather events slips fell down across both ends of Tunnel 1. At the northern end large amounts of water carried sediment into the tunnel, ruining the ballast that the tracks sit on. Forty metres of track inside the tunnel was removed and the affected ballast excavated, down to the track foundation



Tunnel 1 cleared – ready for ballast and the tracks to be put back in.





Clearing slips next to the southern entrance of Tunnel 1. The digger is reducing the slope of the bank, which will then be hydroseeded (sprayed with grass seed) to help stabilise it.

on 110 moderate damage sites, with 7 contractors covering 15 construction packages.

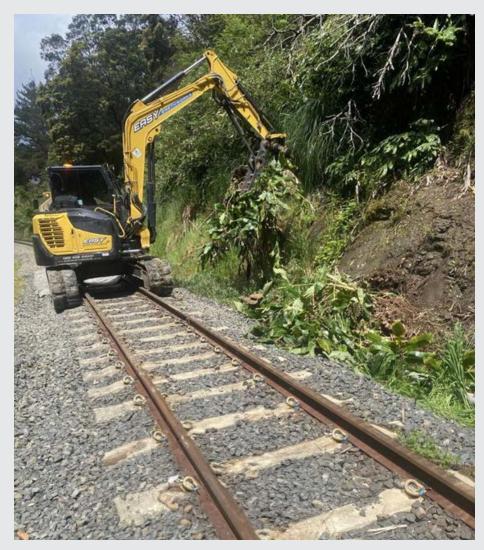
The initial focus is on the southern end of the line, with repairs to Tunnel 1, between Swanson and Waitakere, underway. In the coming weeks work will commence on many other moderate sites along the length of the NAL.

Of the 33 major damage sites, contractors have been appointed, preferred remediation design options have been chosen for more than half the sites and we expect to complete detailed designs by mid-December. We expect to carry out significant physical works over the Christmas/New Year period.

Some of the slips on the NAL have moved land that is in native bush and some areas of bush will need to be cleared to rebuild the rail line.

We have engaged ecologists and erosion/ sediment control specialists who are working with our construction teams to safeguard sensitive native flora and fauna. Any areas that need to be cleared will be re-planted, to reinstate habitats, once the rail work has been completed.

Resilience improvement work on the NAL will be carried out at the same time as the weather damage repairs.



Clearing a small slip just south of Tunnel 1.