

## Kia ora

We have been working hard repairing damage to the North Auckland Line (NAL) from the late January weather event and Cyclone Gabrielle, but there is huge amount still to do.

Despite recent bad weather we have made excellent progress repairing the 35,000 cubic metre slip at Tahekeroa, but on other parts of the line things have been more difficult.

There were more than 200 damage sites along the entire length of the NAL, including slips onto and beneath the rail line, slumps and washouts. Ongoing weather has made the state of some sites worse.

Where it's practical we are looking to do temporary fixes so that the line can reopen, with permanent fixes coming later. However, at least 10 sites will require a significant engineering response – which will take time – and a temporary fix may

However, at least 10 sites will require a significant engineering response – which will take time – and a temporary fix may not be possible.

Given the damage to infrastructure in Auckland, Northland, the East Coast and Hawke's Bay, specialist geotechnical and

engineering design resources are in high demand. This is slowing down procurement and delivery of the assessments and designs needed to repair and reopen the NAL.

Unfortunately, at this stage we expect the NAL will remain closed until at least the end of this year. We are developing our work programme and expect to have a clearer timeframe in the coming months.

If you have any questions about the work we're doing, please contact us at <a href="mailto:northlandrail@kiwirail.co.nz">northlandrail@kiwirail.co.nz</a>

## **Eric Hennephof**

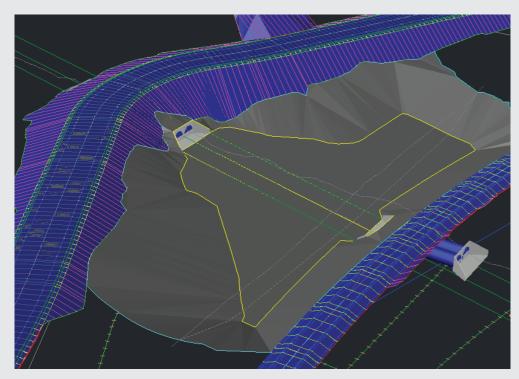
Northland Rail Upgrade Programme Director

## Progress repairing the North Auckland Line

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

Two sizeable slips under the rail line, both just south of Tahekeroa, have got worse due to ongoing weather and we are currently looking at what temporary work can be done so that work trains will be able to get to Tahekeroa.

At Tahekeroa, the rail culverts are complete and installation of the road culverts is 80 per cent complete. Bulk earthworks to create the rail basin between the road and rail line below it, which will act as an overflow to protect the rail line in case future slips fall over the road, are finished. Work is



Indicative design for the Tahekeroa rebuild – showing the road over a bund (top left), culverts and basin area to protect the rail line, and rail line (bottom right)

underway to rebuild the rail formation and road embankment. Next steps include completing the road culverts and building the road bund over them, and continuing excavation for and construction of the replacement rail formation. Repairs are progressing between the Tahekeroa and Whangārei areas but there are 35 sites still going through the geo-technical assessment process, and they will require an engineering response to remediate. This includes the 10 sites needing

significant engineering.

We are preparing a work programme so that as soon those detailed engineering designs are done, repairs can begin immediately.



Road culverts being installed. The road bund and new road, will be built on top of them. See the temporary earth bund, to protect the site during construction, and the scarred hillside in the background.



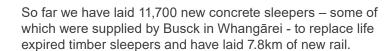
Completion of the graded rock apron in the basin between the road (right) and rail (left) culverts. A large amount of landslip material had to be removed from this area.

## NZ Upgrade Programme work – Whangārei to Kauri

We continue to make good progress renewing and upgrading the line between Whangārei and Kauri, where Fonterra has a dairy plant. This is part of the Northland rail upgrade work funded through the Government's NZ Upgrade Programme.



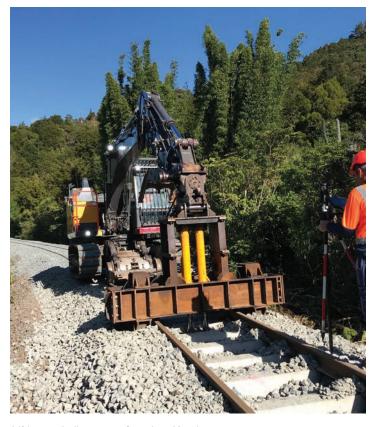
Installing concrete sleepers with sleeper laying frame at Kauri



This work will raise the standard of the track, allowing it to handle heavier trains (18 tonne axle loads). The aim is to complete as much renewal work as possible before the NAL reopens and avoid further disruption for customers.



Track laid on ballast bed between Kensington and Kamo Road crossings in Whangārei



Lifting and alignment of track at Kauri.



Track renewal and drainage work at Bridge 182 underpass