

Chapter 9.6

Tranz Rail Limited

Description of Network

Tranz Rail Ltd operates the railway lines through Hawke's Bay. They comprise the Palmerston North – Gisborne Line (PNGL), and the Ahuriri Branch Line, which links the Port of Napier with the PNGL at Pandora, Napier. These lines are part of a larger network running from Wellington to Auckland through the central North Island.

In general the rail link from Palmerston North follows the same valley systems as the state highway, from Waipukurau to Napier. The topography is mostly easy, but with heavy grades at Opapa, and long bridges across major rivers. From Bay View, the topography is more difficult, and the line follows an inland route, rejoining the state highway at Tutira. From there, it generally follows the highway to Nuhaka. The route is characterised by numerous tunnels, some large steel and concrete viaducts, and many timber piered bridges across narrow waterways. From Nuhaka the route mainly follows the coast to Gisborne.

The Ahuriri Branch Line follows the western side of Bluff Hill to the Port. Tranz Rail has fuel and repair facilities at Pandora.

North of Eskdale and south of Hastings train control is via radio-based track warrants from the Wellington Train Control. Tranz Rail operates its own radio network. From Hastings to Eskdale signals and points are remote controlled from Wellington, via Telecom circuits. When power fails, many installations have back up supplies, or can be manually operated. Tranz Rail has operating procedures which allow it to work around failed equipment. However, these are dependent on communications systems.

Results of Risk Assessment Study

The study has highlighted that seismic activity presents the greatest overall risk for Tranz Rail in the Hawke's Bay region. The major problems are likely to result from settlement and displacement in the southern part of the region, affecting rail formation. This is due to the nature of underlying strata, rather than the rail formation itself. It is therefore difficult to take measures to deal with this problem.



Westshore rail bridge. (Photo courtesy John Keenan)

Tranz Rail has procedures which will ensure that trains do not pass over any affected lines before a safety inspection has been carried out. After a major seismic event, it is expected that trains will be running at reduced speed within a reasonable time frame.

Although key structures on the rail network are less vulnerable than rail lines, any damage to them could disrupt the rail services for longer. The up-to-date data gathered for this study will be applied to structures in due course, to reassess their vulnerability.

Generally, seismic hazard presents less of a risk north of Napier than to the south. To the north, flooding and landslip are more of a threat. Again, Tranz Rail has procedures to ensure that trains do not pass over any affected lines before a safety inspection has been completed. It is expected that trains will run at reduced speeds within a reasonable time frame after flooding of landslip.



Train Gisborne bound. (Photo courtesy John Love)