

Investment in infrastructure resilience - can we afford to wait?

The recent findings from the Wairarapa Engineering Lifelines Association (WELA) serve as a stark warning: **Wairarapa's infrastructure is alarmingly vulnerable to natural disasters.**

A risk framework maintained by WELA identifies what remedial work is needed to improve the resilience of our region's infrastructure. WELA has identified four key risks which highlight Wairarapa's vulnerability to natural hazard events. Unless mitigated, these events will leave the region's infrastructure network highly exposed.

Climate-driven weather events will continue to increase in frequency and severity but the resilience of the region's infrastructure networks is not keeping pace. Wairarapa is also exposed to seismic

events. There are a limited number of roads which connect the region to the rest of the North Island. A major earthquake could cause road isolation and the loss of essential supply chains that serve Wairarapa.

If damaged in a major earthquake, the Ruamahanga Bridge on State Highway 2 and surrounding land would require a seismic upgrade. A Bailey Bridge at the location of the bridge would take approximately three months to install. Permanent strengthening work does not come cheap; Waka Kotahi/NZ Transport Agency estimates the cost to upgrade the bridge to be in excess of \$10 million.

Earthquakes also threaten water supplies, and the towns in Wairarapa are similarly exposed. Liquification potential at water sources is a particular concern, and again, seismic strengthening has a high price tag.

The electricity network faces similar threats. In high winds, there is a real risk of powerlines succumbing to vegetation and landslips. Ongoing vegetation management is an obvious mitigation activity, but ensuring robust connectivity to

key facilities is crucial to providing a more resilient network.

Also at risk are Wairarapa's network of stop banks. A major earthquake or rain event could damage them or a severe weather event could cause water to overtop the banks, leading to major flooding events. Greater Wellington and Wellington Region Emergency Management Office are working with communities and farmers in the flood risk zones to maximise flood awareness and preparedness. It is essential that floodplain management plans are current and appropriate and a strategy for re-establishment of the stop banks is critical.

Our region needs clear, significant funded strategies to upgrade infrastructure, not just contingency plans for when the worst happens. The question we must ask ourselves is this - do we wait for disaster to force our hand, or do we act now to secure our future?

Councillor Adrienne Staples
Chair, Wairarapa Engineering Lifelines Association

RISKS TO WAIRARAPA'S INFRASTRUCTURE POSED BY NATURAL HAZARDS

AS IDENTIFIED BY THE WAIRARAPA ENGINEERING LIFELINES ASSOCIATION

Wairarapa is prone to natural hazards. It also has an ageing infrastructure network. This means that the essential services, or 'lifelines' we rely on every day are likely to suffer damage in a natural disaster.

WHAT CAN I DO?

We can't predict disasters, but we can prepare for them.

You can help to raise awareness of the need to strengthen our infrastructure lifelines by supporting your district council, asset owners and key decision makers to prioritise and fund improvement projects.

If you want to know how to make your household more resilient, visit www.wremo.nz to learn more about how to get prepared.

WATER AND WASTEWATER NETWORKS

Water supply and wastewater networks in Wairarapa are vulnerable to earthquake events. Some critical supply networks are located in high liquefaction areas. This could lead to water network outages of weeks to months following a major earthquake.

ROAD NETWORK

Wairarapa has only three key roads that connect the region to the rest of the North Island. Bridges and culverts are essential to maintain network connectivity but some are in need of seismic strengthening such as the Ruamahanga Bridge on SH2 south of Mt Bruce, a key northern lifeline.

FLOOD DEFENCE

A major earthquake or flood event could cause stop banks to be damaged or spill over, risking flooding of farms and homes. Repairing stop banks could take weeks or months.

ELECTRICITY NETWORK

In high winds or heavy rain, powerlines are likely to be taken out by falling trees and landslips.

FIND OUT MORE AT: www.wremo.nz/about-wremo/lifeline-utilities