Resilience hazard maps

Low frequency hazards

The resilience hazard maps provide an assessment of key low frequency, high impact natural hazards (such as earthquakes) that may impact the availability of the network, and includes an assessment of the extent and duration of the outage. (See **http://nzta.maps.arcgis.com/home/gallery.html#c=organization&o=modified** and click on SH Resilience option.)

We have gathered information from a number of sources to assess the likely resilience of our state highways to a variety of major events.

This is a useful resource for providing evidence on the relative exposure of our networks to low frequency significant natural hazards like earthquakes and volcanic activity. This will help inform where we need to invest in the future.

In the state highway resilience maps section, click along the Themes tab at the top to see the different hazard type assessments.

Availability State

The Availability State indicates whether the road section would be fully available, at various reduced levels or not at all. This gives an indication of the degree of access on a link after an event.

Outage State

The Outage State indicates the duration over which the road will be in the Availability State above. This gives an indication of the duration of loss or reduced access in links along the road network.

Disruption State

The Disruption State combines the availability and outage states to produce a single parameter indicating the level of disruption caused by the hazard type at each road section.

Earthquake

Storm/flooding


Tsunami

Volcano
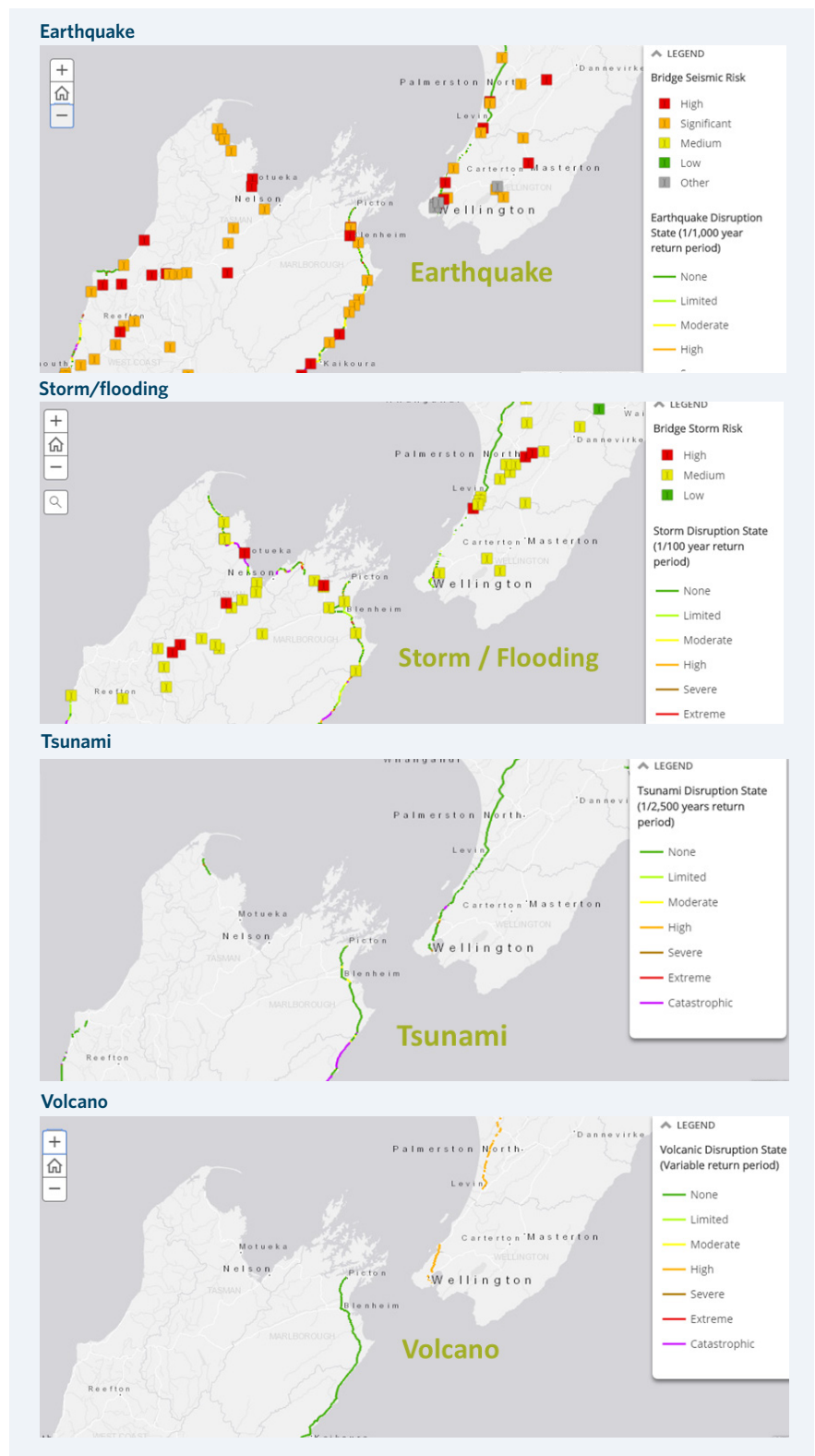
Resilience hotspots

The Resilience Prioritisation Maps, found on the right hand tab, is to help identify and prioritise where we need to focus our attention to maintain or improve the resilience of the state highway network. It gives an overall prioritisation rating across the state highway network, based on natural hazard risk.

It does not consider whether there are sufficient responses in place – rather it shows where we need to ensure 'our ducks are all in a row'. It could be used especially as part of the Point of Entry or Strategic Case evidence to support and inform the case for further investment in next Business Case phases.

It lets you look at the resilience hotspots of state highway segments in aggregated or detailed levels across the network. The assessments underlying the prioritisation take the Low Frequency event assessments shown overleaf, combine them with a High Frequency event data set and cross-reference against the One Network Road Classification system (as a measure of route criticality).

Hotspots map
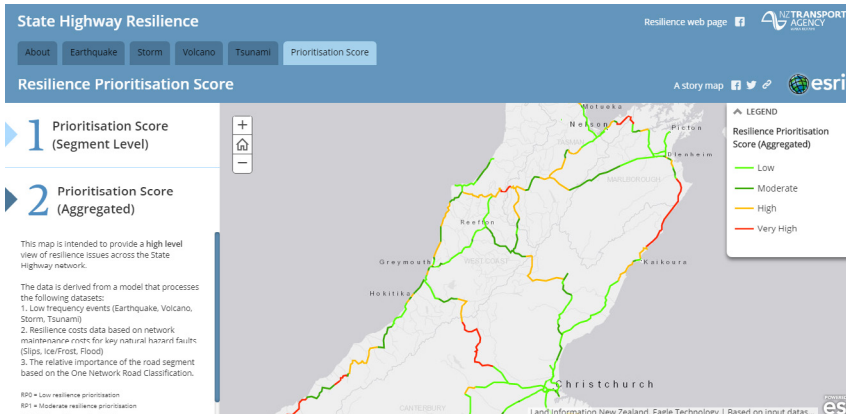
We recognise that our High Frequency data set is not completely satisfactory, so are doing more work on improving that for the locations where there has been little information recorded. In the meantime, click on your link of interest and check out the pop-up box information for additional insights.

For further information visit the NZ Transport Agency website

www.nzta.govt.nz/roads-and-rail/highways-information-portal/technical-disciplines/resilience-project/

or email **resilience-infrastructureplanning@nzta.govt.nz**.