

THIS CHAPTER COVERS:

Geological hazards

- Volcanic eruption
- Earthquakes
- Liquefaction
- Tsunami

Weather-related hazards

- Coastal erosion
- Flooding
- Riverbank erosion and landslides
- High winds and tornadoes
- Droughts
- Climate change

NATURAL HAZARDS

New Zealand's location on the active Pacific-Australian plate boundary means much of the country is susceptible to geological hazards such as volcanic eruptions, earthquakes, liquefaction and tsunami. The country can also be subject to weather-related hazards such as flooding, landslides, high winds, tornadoes and droughts.

A major event can have dramatic social and economic effects. Preparing for and responding to natural hazards in terms of reduction, readiness, response and recovery is a key component of the Council's work.



Natural hazards



*'A severe tornado occurs about
once in every four years.'*

Natural hazards

New Zealanders live on the edge of the active Pacific-Australian plate boundary and earthquakes and volcanoes have shaped the country's landscape. New Zealand is also subject to a large number of meteorological or weather-related hazards. Historical evidence and scientific research show the potential impact on New Zealand's population and economy as a consequence of natural events to be significantly greater in more recent years, as witnessed in Christchurch in 2010 and 2011.

In Taranaki, significant potential hazards include volcanic activity, earthquakes, flooding, high winds, drought and erosion and landslips, although to some extent, vulnerability to natural hazards depends on where in the region residents live.

Experts generally agree that climate change is affecting New Zealand's weather patterns. In Taranaki, rainfall is predicted to decrease in summer and increase in winter. An increase in extreme rainfall is likely as the temperature increases through the 21st century, potentially increasing both the severity and frequency of flooding. South Taranaki is predicted to become drier on average, with more frequent droughts. Gale and storm force winds from the west are also predicted to increase.

Regional and district plans, and emergency management plans identify potential natural hazards for Taranaki, and contain controls to reduce hazard risks. The regional and district councils undertake flood prevention work and have flood event procedures in place to minimise risk. Building controls, refurbished infrastructure (such as water and power supplies) and improvements to road networks all enhance the region's resilience. However, an increasing reliance on technology can lead to greater vulnerability.

The Taranaki Civil Defence Emergency Management (CDEM) Group identifies significant hazards and risks for management in the *Taranaki Civil Defence Management Group Emergency Plan*. In addition, the CDEM Group promotes community awareness and education on natural hazards, including measures and responses to reduce risk.

Together, all agencies involved in civil defence in the region work to minimise the risk of natural hazards to the people, places and economy of the region.

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