

## **VOLCANIC AND SEISMIC HAZARD IN AUCKLAND: JUST HOW SHAKY IS OUR ISTHMUS?**

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The city of Auckland is built on and around a potentially active, basaltic, intraplate volcanic system, the Auckland Volcanic Field (AVF), which hosts around 50 small volcanoes and has been active for the last quarter of a million years. The most recent eruption occurred from Rangitoto 550 years ago and was witnessed by early indigenous Maori. There are also at least two faults in the wider region that are considered active (the Wairoa North fault in the Hunua Ranges, and the Kerepehi fault in the Hauraki rift). Although Auckland is considered to be one of New Zealand's most tectonically stable areas, the region does experience low-level seismicity; since 1983, the Auckland seismic network has recorded > 80 earthquakes above c. M 2.5. Although volcanic eruptions and earthquakes in Auckland are relatively small and infrequent, the risk associated with future activity is very high, given the high physical and economic vulnerability of Auckland (population ca. 1.5 million). In this presentation I will provide an overview of volcanic and seismic hazard and associated risk in Auckland, and outline some of the key findings of recent research and some of the challenges of monitoring volcanic and seismic activity in an urban environment.