

Managing volcanic unrest on the Tongariro Alpine Crossing

The Tongariro Alpine Crossing traverses Tongariro, an active volcano. The Ngāuruhoe, Red Crater and Te Maari vents on Tongariro have all erupted in the last 100 years. The Department of Conservation actively manages volcanic risk on the track and responds decisively to increased volcanic unrest.

We manage volcanic risk on the Tongariro Alpine Crossing and Tongariro Northern Circuit by identifying closure points based on the GeoNet Volcanic Alert Level (VAL).

The three active vents on Tongariro – Ngāuruhoe, Red Crater and Te Maari – normally sit at VAL 0 (no volcanic unrest).

When the VAL increases to 1 (minor volcanic unrest), we close the track and assess the probability of an eruption occurring. The length of this initial VAL 1 closure period is determined by the data available, risk assessments and input from GNS and/or other subject matter experts. If we are confident based on the data that the probability of an eruption is low, and the level of risk is tolerable, then the track is reopened.

See the GeoNet website for more information on the VAL system:
<https://www.geonet.org.nz/about/volcano/val>

At VAL 2 and above, the track is closed until the activity has deescalated to VAL 1 or VAL 0. Again, the assessment to reopen involves risk assessments and expert input.

The lesson from the Te Maari eruptions in August and November 2012 was the need to manage risk decisively and respond quickly to increasing unrest with track closures.



Te Maari steaming after the 6 August 2012 eruption