

Mt Ruapehu Crater Lake Lahar threat response

– SCIENTIFIC ADVISORY PANEL

Between late 2000 and 2011, a lahar (mudflow) is predicted to flow down the Whangaehu Valley on East Mt Ruapehu when a weak dam of volcanic ash and other volcanic material (tephra) holding the Crater Lake fails. Courses of action have been implemented to minimise threats to public safety from this dam failure (explained in more detail in factsheets 1 - 4).

In August 2001, the Minister of Conservation appointed an independent scientific advisory panel to provide advice on issues relating to the lahar threat. The six-member panel comprises geologists (structural, engineering and volcanic specialists), and lahar specialists.

The panel was asked to advise the Minister on three issues:

- The stability of the outlet dam as the water rises against it.
- Likely dam failure mode and duration.
- Any modifications to the predicted worst-case lahar hazard.

An important aspect of the panel's work is to advise the Minister on any refinements or changes to the worst-case lahar hazard as the Crater Lake refills. Current planning is based on the panel's first report to the Minister in November 2001. This is for a somewhat larger and faster moving worst-case lahar scenario than that used in the Assessment of Environmental Effects (AEE) published in 1999.

The first work carried out by the advisory panel has supported the technical approach adopted by the Department of Conservation to date. The panel recommended further lahar modelling and other investigation work be carried out during the 2000/01 and 2002/03 summers.

The panel made further reports in 2003, 2004 and 2006.

The panel receives regular updates from the Department on the level of Crater Lake and the state of the dam at Crater Lake. If a significant change in understanding or perceived hazard occurs as a result of this monitoring, the panel will inform the Minister.



The Department of Conservation's mission is: To conserve New Zealand's natural and historic heritage for all to enjoy now and in the future. Ko ta Te Papa Atawhai he whakaute he tiaki i nga taonga kōiora me nga taonga tuku iho hei painga mo te katoa inaianei, mo ake tonu ake.