



Peak ground accelerations

The project consisted of the development of the New Zealand National Seismic Hazard Model that has served as the basis for developing the seismic zone factor maps of the new structural design standard for New Zealand (NZS1170.5). In addition, seismic hazard assessments of many major projects, including dams, bridges and buildings have been based on this model.

Used in conjunction with active fault data, seismicity catalogue data and attenuation relationships and methods, the National Seismic Hazard Model has led to the development of a Probabilistic Seismic Hazard Assessment (PSHA) for New Zealand.

This work has been published at various stages, and is now being carried through by GNS Science staff to incorporate the results into new national building codes. The software has also been used to perform hazard estimates for projects outside New Zealand, using appropriate earthquake source models and attenuation models.

Project Description

Project: New Zealand National Seismic Hazard Model

Location: New Zealand

Client: Earthquake Commission (EQC) and Foundation for Research, Science and Technology (FRST)

Total Project Value: Confidential

Start Date: July 1998

End Date: July 2000

Lead Company: GNS Science

Associated Consultants: None

Key Features:

- Geological Surveys
- Structural and Design Engineering
- Earthquake Engineering
- Development of Seismic Zone Factor Maps
- Development of New Zealand Building Standards (NZS1170.5)