

Active Fault Guidelines of New Zealand and its implications

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Some local authorities in New Zealand have controlled the land use on or close to active faults using permission system called 'resource consent' in compliance with Resource Management Act. However, there is considerable variation in the way that individual councils have approached their responsibilities of land use planning.

'Planning for Development of Land on or close to Active Faults' (known as Active Fault Guidelines) were released in 2004 by the Ministry for the Environment, aiming to assist in planning to avoid or mitigate the fault rupture hazard (Kerr et al, 2004). The guideline is based on the four principles; 1) Gather accurate active fault hazard information, 2) Plan to avoid fault rupture hazard before development and subdivision, 3) Take a risk-based approach in areas already developed or subdivided, 4) Communicate risk in built up areas subject to fault rupture. The guidelines focus on the need for a risk-based approach to planning for land use on or near active faults. The main elements of the risk-based approach are the 'fault recurrence interval' (the likelihood of a fault rupturing in the near future), the 'fault complexity' (the distribution and deformation of land around a fault line), and the Building Importance Category (the acceptable level of risk of different types of buildings within a fault avoidance zone). With respect to the principle 2) and 3), the guidelines provide two Consent Category Tables, for greenfield sites, the other is for already subdivided areas, suggesting resource consent activity statuses for areas where active fault may be present.

The follow up study was conducted in 2005 by postal questionnaire and interviews to the local authority staff members (Becker et al., 2005). The conclusions are as follows; 1) reasonable numbers of local authorities are aware and supportive of the guidelines, whose category tables are viewed as problematic, 2) few had made any longer term changes, such as district plan or consent processing change, in spite of a third of the respondents had already used the guidelines in their day to day planning activities.

The guidelines are considered to take realistic approach to mitigate and/or avoid fault rupture hazard. We are going to assess how planners and relevant professionals evaluate and accept the guidelines in Japan.