BY **JANINE KERR**, HAZARDS PLANNER AND RESEARCHER IN NATURAL HAZARDS. INSTITUTE OF GEOLOGICAL & NUCLEAR SCIENCES

CIVIL DEFENCE AND PLANNING

THE CIVIL DEFENCE EMERGENCY MANAGEMENT ACT 2002 PLACES NEW RESPONSIBILITIES ON LOCAL AUTHORITIES TO MANAGE THE IMPACTS OF ALL HAZARDS - BOTH NATURAL AND TECHNOLOGICAL.

This article briefly outlines the range of legislation currently in place to carry out this task with emphasis on the new Civil Defence Emergency Act 2002 and how this Act will influence the way that planners approach their RMA responsibilities for the avoidance and mitigation of natural hazards.

Last year the Civil Defence Emergency Management Act (CDEM Act) was enacted to repeal and replace the Civil Defence Act 1983. The Act is supported by the vision "Resilient New Zealand - strong communities, understanding and managing their hazards".

Prior to the CDEM Act, the need to manage the risks posed by natural hazards has not gone unnoticed by New Zealanders' legislature. Management of natural hazards is legislated for in the Resource Management Act 1991, Soil Conservation and Rivers Control Act 1941, Building Act 1991, Earthquake Commission Act 1993, and even the Land Drainage Act 1908.

So why was there a need to create further legislation to manage hazard risk?

NATURAL HAZARDS IN NEW ZEALAND

New Zealand is a small island nation surrounded by the Pacific Ocean, perched across the converging Australian and Pacific tectonic plates, and in the path of the 'Roaring Forties and Furious Fifties" . It is therefore no small wonder that it is subject to the wide range of natural hazard phenomena from earthquake shaking and fault rupture, volcanic eruptions, landslides, land deformation, flood, tsunami and extreme storm events.

Events that you, your parents or grandparents may remember include the 1929 Murchison Earthquake, the 1931 Napier Earthquake, 1968 Wahine Storm, 1976 Abbotsford Landslide, the 1987 Edgecumbe Earthquake, Cyclone Bola 1988 and the 1999 Otago Floods. Over the past 70 years however, New Zealand has experienced a relatively calm period of significant natural hazard events. No major urban areas for example, have been hit by an earthquake causing loss of life since the 1931 Napier earthquake. Our capital city sits astride the Wellington Fault, and though it is often stated that the city is due for the "big one", latest research from the Earthquake Commission show that people are generally not preparing their homes to deal with the impacts of an expected magnitude 7+ earthquake[2].

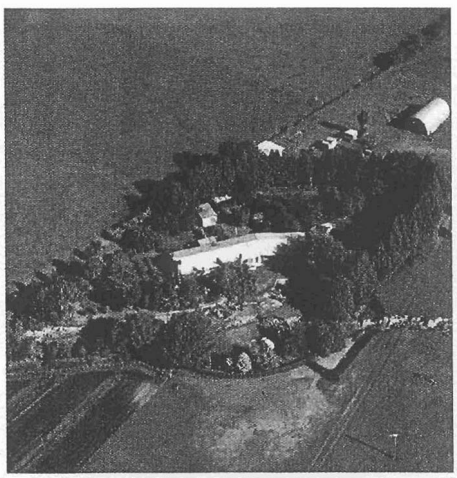
That few New Zealanders have experienced disastrous events can, of course, be viewed as a good thing. The downside however, is the resultant complacency and limited understanding of natural hazard risk. Experience of hazard events leads to more accurate risk perceptions and this in turn can lead to higher levels of planning and preparedness[3]. The challenge faced by government is how to reduce the impacts of future hazards when there is limited personal experience of such events.

NATURAL HAZARD RISK

Natural hazards cannot be prevented so the challenge is to put measures in place to mitigate their potentially disruptive impacts. At an individual level hazard events can result in loss of life, injury, damage to private property, psychological trauma and general disruption to day to day living. At a community level they can result in business interruption resulting in economic hardship. Natural hazards can interfere with the operation of lifeline utilities such as water, gas, electricity, telecommunications and transport resulting in disruption to the day to day necessities on which we rely.

Hazard events can lead to a loss of confidence in New Zealand markets and impact adversely on local and overseas investment.

Hazard impacts are not limited to people and business, but extend to environmental damage from erosion and landslide (as a result of excessive rainfall or earthquakes) sedimentation and damming (from landslides) with consequential impacts on flora and fauna.



Left: Fault Rupture Edgecumbe Earthquake 1986. CDEM Groups will help provide planners with knowledge of hazards that will enable the development of appropriate land use policies to reduce hazard risk in thefuture. For example, Wellington City Council has recently clarified the location of the Wellington Fault. This will increase awareness of the hazard risk, and allow for the development of targeted land use policies to restrict certain development close to the fault.

Nowhere in New Zealand is exempt from the range of impacts resulting from natural hazards. Even if the impacts of a natural hazard event were focussed on a small limited geographical area, most areas of the country would inevitably be affected in one way or another because of New Zealand's small size, and interdependencies of infrastructure and business.

THE CIVIL DEFENCE EMERGENCY MANAGEMENT ACT 2002

The genesis of the CDEM Act occurred during the 1990's when concerns were raised about the ability of local authorities and the Government to adequately manage a civil defence emergency. Proposed changes recommended that local authorities take more responsibility for managing local risk, alongside the need for improvement in central government capability to manage large-scale emergency events.

To manage this new approach, the Ministry of Civil Defence & Emergency Management (MCDEM) was established in 2000 to replace the existing Ministry of Civil Defence. MCDEM was tasked with developing the CDEM Act.

A key aim of the CDEM Act is to increase the role and functions of civil defence organisations, and make clear the responsibilities of government departments, lifeline utilities and emergency services in reducing hazard risk. The traditional focus of civil defence activities (waiting for a disaster to happen) has been expanded to encompass the 4 R's of Reduction, Readiness, Response, and Recovery.

The CDEM Act requires the formation of CDEM Groups by 1 June 2003. These Groups will replace the existing civil defence functions presently carried out by every local authority. Instead of 84 local civil defence organisations each with their own plans there will now only be 14-16 CDEM Groups. Within two years of forming, each CDEM Group is expected to produce a CDEM Plan.

CDEM Group Plans will logically build upon and improve existing civil defence emergency management arrangements, and will add a risk management approach to addressing hazards. The Groups are required to identify all hazards in their areas, assess existing risk controls across the 4 R's, identify gaps, and the means to address these gaps.

CDEM Groups will seek to coordinate the policies and plans of local authorities, emergency services, lifelines and other agencies in their areas that have a hazard risk component. In doing so, the Group will draw upon the planning, hazard, risk and emergency management expertise of these organisations.

NATURAL HAZARD MANAGEMENT AND THE RMA

The RMA requires that both regional councils and territorial authorities have a role in the management of natural hazards[s]. Section 30 sets out the functions of regional councils, and Section 31 the functions of territorial authorities. Specifically, regional council responsibilities are:

30 *(5)(c) (iv) The control of the use of land for the purpose of the avoidance or mitigation of natural hazards*

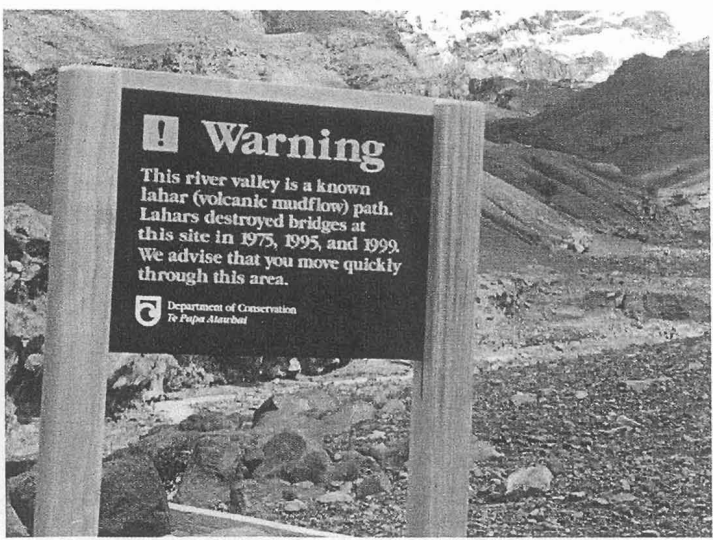
(5)(d)(v) In respect of any coastal marine area in the region, the control of any actual or potential effects of the use, development, or protection of land, including the avoidance or mitigation of natural hazards and the prevention or mitigation of any adverse of the storage, use, disposal, or transportation of hazardous substances.

and territorial authorities are:

31 (b) The control of any actual or potential effects of the use, development, or protection of land, including the implementation of rules for the avoidance or mitigation of natural hazards and the prevention and mitigation of any adverse effects of the storage, we, disposal, or transportation of hazardous substances.

Confusion over responsibilities for natural hazard management between regional councils and territorial authorities over interpretation of these sections has often arisen. Section 62(1)(ha) however, says that the regional policy statement has to state which tier has the responsibility for "developing objectives, policies and rules relating to the control of the use of land for the avoidance or mitigation of natural hazards". Councils need to discuss and

Bottom: Identifying and understanding hazard risk before a natural hazard event occurs will allow emergency managers and planners to develop appropriately targeted practices and policies to reduce the risk.
The recent Mt Ruapehu volcanic eruptions (1985/86) have led to improved understanding of eruptions, from the dynamics of ash fall to the need for effective warning systems.



agree upon the division of responsibilities for managing hazards to make sure it is being done, and to avoid duplication.

The mechanism for carrying out these functions by regional councils is through regional policy statements and regional plans, and for territorial authorities through district plans. Although a majority of district plans do contain policies about natural hazards, to date, no regional councils have developed a regional hazard management plan. All policy for hazard management at a regional level is contained within broad regional policy statements.

CENTRAL GOVERNMENT'S ROLE IN MANAGING NATURAL HAZARDS

At central government level, the Ministry for the Environment has the authority to prepare both national environmental standards and national policy statements for environmental issues, which may include managing natural hazards[6]. These are not mandatory, and to date none have been developed. The mandatory New Zealand Coastal Policy Statement[1], required by the Minister of Conservation does contain a number of policies relating to managing natural hazards. Under the CDEM Act, not all responsibility for managing natural events has been passed to local government. MCDEM will retain its role in managing national level emergencies and will be required to develop a National CDEM Plan.

THE LINK BETWEEN EMERGENCY MANAGERS AND PLANNERS

A key benefit of CDEM Group Plans is that they will 'pull together' existing knowledge and processes rather than duplicate existing plans and policies. A major focus of CDEM Groups will be on identifying existing reduction (mitigation) activities and identifying gaps and inefficiencies in this area (that is, the 'reduction' part of the 4 R's).

It is expected that reduction requirements identified as part of this process will be implemented mostly through regional and district plans. It is here that RMA planners will have a vital role to play in assisting the CDEM Group Plan process. In reviewing existing hazard policies within RMA plans to ensure they correspond with hazards issues and priorities identified by CDEM Groups, many planners may find themselves working closely with emergency managers and writing elements of CDEM plans. The link between RMA plans and CDEM plans will require RMA planners and emergency managers to liase and build closer working relationships.

BENEFITS TO ALL

The vulnerability of New Zealand to hazard risk is very clear given our exposure to natural hazard events. CDEM Act requirements have the potential to significantly reduce this risk through the need to identify hazards, assess and prioritise the risk posed by these hazards, along with emergency managers working closely with government, lifelines and emergency services to reduce this risk.

FOOTNOTES

1. The cooling of the ice sheet in Antarctica creates cold, dense air, which moves at an accelerating rate towards the ocean. This cold flows northwards away from Antarctica towards the warmer ocean air forming intense low pressure systems or polar cyclones that ride in the Southern Ocean. The strong circumpolar westerly winds that blow unimpeded around the mid-latitudes are known to sailors as the Roaring Forties and Furious Fifties.

2. Charleston, AW, Cook, B, Bowering, G 2003. Assessing and increasing the level of earthquake preparedness in Wellington homes. Proceedings of the 2003 Pacific Conference on Earthquake Engineering, No 137.

3. Paton, D, Johnston, D, 2001. Disaster and communities: vulnerability, resilience and preparedness. Disaster Prevention and Management 10:270-277.

4. Reports on the civil defence sector are numerous. See - 1991 Law Commission Report on Emergencies, the 1992 Civil Defence Review Panel Report, the Ahahina Accord, the 1995 Emergency Services Review Task Force Report, and the 1997 Review of Disaster Recovery Preparedness.

5. Resource Management Act 1991, s 30 (c)(iv) and s 31 (b)

6. Resource Management Act 1991, s 24 (a)

7. Department of Conservation New Zealand Coastal Policy Statement (Wellington, 1994).

Below: Rapid and constant build-up of the Waiho River, Franz Josef poses a significant flood risk to residents of; and visitors to, the township. The Ministry of Civil Defence & Emergency Management, Ministry for the Environment, Westland District Council and West Coast Regional Council are working closely together to manage this risk. One initiative taken has been to identify high-riskflood areas on district plan maps alongside appropriate policy to restrict development in these areas.