



## **Council Planning and Policies: Positive Ageing and Planning for Adverse Natural Events**

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## 1. INTRODUCTION

A resilient future for New Zealand's communities depends on the ability of communities to harness the material resources and knowledge embedded in the diversity of people that live in those communities. Structural ageing in New Zealand, where there are increasingly higher proportions of older people relative to younger people, mean both the needs and the skills and expertise of older people will be key components in the ability of communities to make their way through adverse natural events and recover from them. Internationally it is recognised that this requires older people to be more able to protect themselves, built environments to be more resilient, and the primary and secondary responses to adverse events to be more effective. This requires better planning and co-ordination across the domains and sectors in which older people operate.<sup>1</sup>

Councils, both regional and local, are the key place-based agencies with responsibility for local communities and the populations that live in them in good times and bad. Their planning for and support for positive ageing and the extent to which older people are recognised in emergency planning are important elements of community resilience.

This report presents a systematic analysis of emergency management documents and positive ageing documents promulgated by New Zealand councils. It has been conducted as part of the *Community Resilience and Good Ageing: Doing Better in Bad Times* research programme. It considers two questions:

- To what extent are older people's specific needs and circumstances integrated with emergency management policies, preparation and planning in communities?
- To what extent are older people engaged in planning for resilience in the face of adverse natural events?

The report is structured as follows:

- Section 2 sets out the objectives of the research programme.
- Section 3 contextualises the research programme in relation to both adverse natural events in New Zealand and structural ageing.
- Section 4 outlines the framing of positive ageing and resilience in New Zealand public policy.
- Section 5 analyses how councils in New Zealand articulate positive ageing in their documents around planning, preparation and response to adverse natural events.
- Section 6 analyses the extent to which adverse events are evident in councils' positive ageing policy, planning and practice evidenced in their key positive ageing documents.
- Section 7 assesses the extent of co-ordination and integration between positive ageing and adverse event planning evident in councils' key documents.

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<sup>1</sup> Greenberg, M., 2014.

- Section 8 looks at the issues which older people participating in this study identified as undermining or supporting their well-being and resilience in the context of adverse natural events.
- Section 9 comments on ways councils can optimise their effectiveness by supporting older people to help themselves and their communities to manage and recover from adverse events.

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## 2. PROGRAMME CONTEXT, OBJECTIVES AND METHOD

*Community Resilience and Good Ageing: Doing Better in Bad Times* responds to New Zealand's vulnerable landscape. Considerable attention has been given to the impact of earthquakes on communities in recent years.<sup>2</sup> The focus of this research is on weather-related adverse events.

Weather-related events make up the bulk of adverse natural events in New Zealand. Between 1920 and 1983, New Zealand had 935 severe floods. From 1968 to 2011, 94 percent of insurance claims related to events other than earthquakes. Those adverse natural events included flooding, coastal inundation, heavy snow, land subsidence and storms. Often the impact of those events is geographically limited, but sometimes damage can be extensive. Individuals and communities can become isolated and without access to basic amenities, particularly electricity, for days. In those times, individuals and communities are often on their own. Staying safe during adverse natural events is only one part of what can be a long and winding road to recovery for individuals and communities.

The resilience and recovery of communities depends more and more on the skills and resilience of older people for three reasons:

- i. The structural ageing of New Zealand's population means that older people (aged 65 years and above) are going to constitute increasingly higher proportions of the populations of many local communities.
- ii. Associated with structural ageing in the population, is the increase in the numbers of people who must cope with some form of disability (Figure 3.1). Their needs and optimising people's contributions through enabling environments will be an important dimension of adverse natural event preparation, response and recovery into the future.
- iii. There is substantial evidence that older people can be particularly vulnerable to injury and negative health impacts associated with adverse events. Adverse events can precipitate older people's movement into higher dependency living and the loss of their connections to their local communities.<sup>3</sup>

### 2.1 Programme Objectives

The goal of *Community Resilience and Good Ageing: Doing Better in Bad Times* is to encourage the development of community resilience through older people having support and services to help themselves and their communities respond to, and recover from adverse natural events. The researchers hope to support all those who have an interest in our communities to do better in bad times to:

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<sup>2</sup> Thornley, L., et al 2013; Davey, J. and J. Neale, 2013; Wylie, S., 2012; Carswell, S., 2011.

<sup>3</sup> Gibson, M., 2006; Ardalan *et al.*, 2010; Miller, A., and B. Arquilla, 2008.

- Understand better the vulnerabilities of older people in adverse natural events;
- Identify ways to integrate models and services for positive ageing and community resilience into adverse event planning, response, and recovery; and
- Develop resources to allow older people to make their dwellings resilient and optimise their financial and accommodation security during and after adverse natural events.

The Infobox below sets out the six key questions and three objectives that structure the *Community Resilience and Good Ageing: Doing Better in Bad Times* research programme.

<p>How vulnerable are NZ's older people to adverse natural events such as storms, floods, slips and seismic events and are their needs and expertise integrated into community responses? What factors push older people from their homes because of adverse natural events into higher dependency and disengage them from their communities and what are the implications of displacement?</p>	<p><b>Objective 1: Older People &amp; Communities: Resilience in Adverse Events</b> To enhance outcomes of communities and older people dealing with adverse natural events by establishing the: (a) vulnerabilities of older people to adverse natural events when living in the community; (b) extent to which adverse response and recovery plans recognise particular needs and potential contributions of older people; (c) extent to which older people's services integrate adverse event crisis and recovery.</p>
<p>How can positive ageing models and services be integrated into community resilience? How can older people be engaged in community resilience planning and what is the potential of digital and smart technologies and capability building to improve outcomes for older people and their communities in the context of adverse events?</p>	<p><b>Objective 2: community resilience: smart people, smart plans, smart technologies:</b> to realise older people's potential to self-help and contribute to community crisis and recovery by: (a) identifying ways to integrate positive ageing and community resilience models to meet adverse natural events; (b) developing and testing processes for crisis and recovery planning with older people and key agencies in rural, provincial and urban settings; (c) assessing technological solutions to locating and responding to older people living in the community; (d) developing and testing resource kits for capability building among older people and key sectors responding to older people in adverse events.</p>
<p>What dwellings protect older people during adverse, natural events and how can restoration costs and time be reduced to enable older people to resume active lives within their communities? What income, financial and insurance products and assistance do older people need to secure their quality of life given the risks of hard to predict, severe adverse natural events impacting on their community?</p>	<p><b>Objective 3: Securing Older People's Futures: Dwellings that Protect &amp; Optimise Recovery:</b> To improve older people's futures after adverse events: (a) through dwelling materials, design and critical systems that better protect older people in adverse events and easier and more affordable restoration of dwellings; and (b) protecting older people's financial and living security by enabling older people in different tenures to make effective choices and investments in their financial and accommodation security.</p>

## 2.2 Reviewing Council Documents

Two types of council documents were reviewed to assess the extent to which positive ageing principles are integrated into civil defence and emergency management planning. Those documents were: civil defence and emergency management (CDEM) documents and positive ageing documents.

### *Civil defence and emergency management (CDEM)*

The CDEM documents that were reviewed covered information about preparedness, response and recovery planning in the event of an adverse natural event. From April – July 2013, searches for CDEM documents were made on the websites of territorial authorities, regional councils and unitary authorities. In some cases where documents could not be located, phone calls were made to councils to locate relevant documents.

Fifty-two CDEM plans and documents were located and analysed. They comprised:

- 23 group plans and regional documents
- 29 local plans and local documents.

For each council the following information was extracted from the CDEM documents:

- Document name
- Page and text reference to older people.

Specific attention was paid to noting any information in the plans about:

- Older population profiling
- The location(s) of the older population
- Issues specific to the vulnerability and safety of the older population
- Issues specific to the resilience and recovery of the older population
- Exposure of the older population to natural hazards
- Procedures for identifying vulnerable older people
- Procedures for evacuation
- Targeting of messages to older people
- Older stakeholder groups and organisations.

Less than half of the CDEM plans and documents (22) had a reference to older people. Five had two references and three had three references. Table 2.1 shows the types of references.

**Table 2.1: Type of Reference to Older People**

<b>Reference to older people</b>	<b>Number of Councils</b>
Age profile	11
Vulnerability, risk	11
Needs of older or disabled	4
Target group for information	2
Lists disabled organisation	1
Volunteer network	1
Evacuation priority	1

Multiple response

### *Positive ageing documents*

In June 2013, searches for positive ageing documents were made on the websites of territorial authorities, regional councils and unitary authorities. In some cases where documents could not be located, phone calls were made to councils to locate relevant documents. Some councils included information about positive ageing in other documents, such as social wellbeing strategies, long term plans, housing strategies, community profiles or growth strategies. Positive ageing information from those sources was also included in the analysis.

Of a total of 78 councils, 34 had positive ageing documents (including policies, plans, strategies) and 44 councils had no document. For each council the following information was extracted from the positive ageing documents:

- Document name.
- Page and text reference to adverse natural event or CDEM planning in relation to older people.
- Page and text reference to information about older people's resilience.
- Page and text reference to information about older people's housing resilience.

Of the 34 councils with positive ageing documents, almost half the councils (18) made references in those documents to specific activities they undertake to support older people's preparedness, response and recovery in an adverse natural event. Most councils identified only one activity, although one council noted five areas of activity (see Table 2.2).

**Table 2.2: Positive Ageing Activities directed to Adverse Natural Events**

<b>Number of Activities Directed to Adverse Natural Event</b>	<b>Number of Councils</b>
1 Positive Ageing Activity	12
2 Positive Ageing Activities	3
3 Positive Ageing Activities	2
4 Positive Ageing Activities	0
5 Positive Ageing Activities	1
<b>Total</b>	<b>18</b>

### 3. AN AGEING AND VULNERABLE NEW ZEALAND

This section is concerned with two aspects of New Zealand: its structural ageing and its vulnerabilities to adverse events.

#### 3.1 Structural Ageing in New Zealand

One of the ironies found in the rhetoric around New Zealand's ageing population is the use of the tsunami metaphor; the idea that New Zealand will be swamped with an enormous wave of older people as the baby boomers reach retirement. There are two aspects of this metaphor which are problematic. The first is that while the numbers of older New Zealanders aged 65 years or more is forecast to rise, by international standards New Zealand has neither a particularly old population nor a simple dynamic of structural ageing. The Maori and Pacific populations in New Zealand remain relatively young. There are considerable regional differences in old age dependency ratios (Table 3.1). There are a number of countries with higher old age dependency ratios than New Zealand (Table 3.2).

**Table 3.1: Old Age Dependency Ratio by Region 2013 New Zealand Census**

Region	15-64 Years	65 Years and Over	Age Dependency Ratio
Marlborough Region	26,757	8,907	33.3
Northland Region	91,176	27,762	30.4
Tasman Region	29,271	8,463	28.9
Bay of Plenty Region	163,149	46,869	28.7
Hawke's Bay Region	92,814	25,461	27.4
Nelson Region	29,580	8,109	27.4
Manawatu-Wanganui Region	139,995	37,128	26.5
Taranaki Region	68,658	17,802	25.9
West Coast Region	20,820	5,184	24.9
Southland Region	59,529	14,616	24.6
Canterbury Region	354,894	83,844	23.6
Otago Region	135,864	31,695	23.3
Waikato Region	256,581	59,574	23.2
Gisborne Region	26,802	6,126	22.9
<b>Total New Zealand</b>	<b>2,769,387</b>	<b>607,032</b>	<b>21.9</b>
Wellington Region	317,043	62,268	19.6
Auckland Region	956,037	163,155	17.1

Table 3.2: Old Age Dependency Ratio by Selected Countries 2011<sup>4</sup>

Rank	Country	Old Age Dependency Ratio	Year
1	Japan	36.93	2011
2	Italy	31.51	2011
3	Germany	31.18	2011
4	Sweden	28.63	2011
5	Greece	28.01	2011
6	Portugal	27.21	2011
7	Finland	26.99	2011
8	Belgium	26.88	2011
9	France	26.44	2011
10	Austria	26.42	2011
13	Denmark	25.85	2011
16	United Kingdom	25.57	2011
17	Spain	25.27	2011
18	Switzerland	25.06	2011
19	Hungary	24.32	2011
20	Slovenia	24.11	2011
21	Netherlands	23.61	2011
23	Norway	22.58	2011
25	Uruguay	21.65	2011
26	Czech Republic	21.55	2011
29	Canada	20.84	2011
31	Malta	20.58	2011
32	Australia	20.33	2011
33	Luxembourg	20.33	2011
<b>34</b>	<b>New Zealand</b>	<b>20.05</b>	<b>2011</b>
36	United States	19.96	2011
38	Poland	19.32	2011
41	Iceland	18.17	2011
42	Cuba	18.02	2011
43	Ireland	17.82	2011
44	Russia	17.72	2011
46	Israel	17.04	2011
48	Slovak Republic	16.87	2011
49	Cyprus	16.66	2011
50	Argentina	16.52	2011

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<sup>4</sup> <http://data.worldbank.org/indicator/>

The second problem with the tsunami metaphor is that it focuses on the sheer numbers of older people in the New Zealand population. The issue of population ageing is not merely a matter of the absolute numbers of older people, but the balance between the numbers of older people, younger adults and children. New Zealand had, for instance, a very high dependency ratio because of the considerable numbers of children. It also has had the opportunity to take advantage, largely missed, of the demographic dividend; the period in which the ratio of the so-called working age population was comparatively large relative to pre- and post- working age populations. New Zealand is now faced with an increasing old age dependency ratio. This is not because we have a lot more older people, but because we have a lot fewer younger people. Certainly New Zealanders have longer lives, but we also have falling fertility rates. New Zealand faces not so much a tsunami of older people but a rising level of old because of falling births.<sup>5</sup>

### 3.2 New Zealand and Adverse Events

New Zealand is susceptible to a wide range of natural hazards including floods, storms, coastal surges, other extreme weather events, land subsidence, bush fires, earthquakes and volcanic eruption. While earthquakes constitute the most significant insurance losses, floods outweigh other events for frequency. Both the severity and frequency of weather events are likely to increase in future due to climate change, and this will heighten the vulnerability of areas already prone to flooding.<sup>6</sup>

The New Zealand insurance framework has a number of features that combined, make it a relatively strong and unique system.<sup>7</sup> Insurance coverage is permitted for a range of natural hazards, provision for cover is compulsory (i.e. if you have house insurance you cannot opt out) and relatively universal (all risks are permitted into the pool). Insurance is provided by combined state provision through the Earthquake Commission and private insurers. Insurance penetration – the numbers who have insurance – is very high in New Zealand; this is very important for resilience in a country with a low population as risks can be spread widely across the population. One weakness in the current system is a low emphasis on mitigation, which is important for future risk reduction.

Maintaining the affordability of insurance for older people is an increasing challenge. Premiums have begun to increase due in part to the Canterbury earthquakes, but not only to those. Maintaining the availability of flood insurance for high risk properties is

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<sup>5</sup> Jackson, N. 2011; Pool, I., *et al.*, 2013.

<sup>6</sup> Office of the Chief Science Advisor, 2013:10.

<sup>7</sup> Information presented here is summarised from a report produced for the *Community Resilience and Good Ageing: Doing Better in Bad Times* research programme: Priest, S., 2014, *Review of international flood insurance and recovery mechanisms: implications for New Zealand and the resilience of older people*. Report prepared for the public good science programme, Community Resilience and Good Ageing: Doing Better in Bad Times. Flood Hazard Research Centre, Middlesex University, London.

also likely to become a major challenge. While this will impact on all householders, older residents may be disproportionately impacted, as those on fixed incomes will be less able to use their own funds to recover from flooding. The move to ‘sum insured’ may create new barriers for older people as it requires a higher level of engagement with estimating the re-building, and much consumer information and assistance is online. Older people are considerably less likely to have a home internet connection.

### **3.3 Older People, Place and Adverse Events**

There are three aspects of older peoples’ lives that can make them potentially more vulnerable in the context of adverse natural events. The first relates to the geographical distribution of older people relative to sites vulnerable to adverse events. The second is the issue of disability and functional impairment. The third relates to the household structures in which older people live.

#### *Older People and Vulnerable Places*

There is a raft of research that suggests that if older people move from their existing dwellings and communities at retirement it is prompted by one of three considerations. First a desire to be closer to children or family networks. Second, a desire to be close to amenities, particularly health care, and, third, to establish a new life in an environment focused on recreation and using discretionary time. Those considerations are manifest in the marketing of many retirement villages in New Zealand which are particularly adept at providing a sense of combined recreation and care. It is also evident in the clustering of older people in what is broadly described as the ‘sunshine’ belt. That includes Tasman, Nelson, Marlborough and the Bay of Plenty. In this research it was found that vulnerable, and sometimes isolated, landscapes near beaches, rivers or on elevated sites with views were not uncommon choices among older people. There was a strong desire to treat retirement as a holiday and, associated with that, a desire to build or buy dwellings in the sort of place in which they had holidayed in the past.

To establish definitively whether older people are concentrated in sites that are more vulnerable than younger people is beyond the scope of this research. The myriad of natural hazards in New Zealand and their implications for the development and building of New Zealand’s settlements is being explored by a variety of researchers. In the context of this very small research programme, a particular focus was placed on the exposure of older people in the context of New Zealand’s coastal developments<sup>8</sup> and the application of Riskscape modelling flood and storm tide impacts in case study areas known to have significant concentrations of older people.

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<sup>8</sup> Bell, R., and S. Wadwha, 2014

The coastal analysis was undertaken on a national basis. It estimates on a regional basis the numbers of residents within 0-<3 m, 3-<5 m, and 5-<10 m elevations above mean high water around New Zealand's coasts. It addresses coastal inundation hazards susceptibility where storms, surges, tides tsunamic or sea-level rise can drive water onto land areas and through flowpaths defined by the local topography. The estimates of population vulnerable to those events is based on the 2006 census using meshblock analysis.

That analysis clearly shows that older people are over-represented among the population vulnerable to coastal inundation although the total numbers are relatively small at a little under 22,000 older people. About 152,000 people in 2006 lived within the 0-<3 m coastal elevation zone. Of those 14.5 percent were aged 65 years or more. That compares to an overall representation of older people in the population in 2006 of 12.3 percent.

In some regions the proportion of the vulnerable population within the 0-<3 m coastal elevation zone not only exceeds the representation of older people in the population but exceeds the already over-representation of older people in the vulnerable coastal population. Indeed, only in Southland, Marlborough, and Manawatu-Wanganui are older people under-represented among the vulnerable coastal population compared to the proportion of older people in the population as whole. The regions with high proportions of the vulnerable coastal population who are aged 65 years or over are:

- Waikato – 20.1 percent of the population living in the 0-<3 m coastal elevation zone.
- Otago – 19.5 percent of the population living in the 0-<3 m coastal elevation zone.
- Tasman – 18.5 percent of the population living in the 0-<3 m coastal elevation zone.
- West Coast – 17.2 percent of the population living in the 0-<3 m coastal elevation zone.
- Taranaki – 16.9 percent of the population living in the 0-<3 m coastal elevation zone.
- Bay of Plenty – 16.7 percent of the population living in the 0-<3 m coastal elevation zone.
- Northland – 16 percent of the population living in the 0-<3 m coastal elevation zone.
- Nelson – 15.4 percent of the population living in the 0-<3 m coastal elevation zone.

Notably, some regions with lower than the national representation of 14.5 percent of people living in the 0-<3 m coastal elevation zone have the highest absolute numbers of older people in those zones. For instance, in the Canterbury Region 13.8 percent of the population in the 0-<3 m coastal elevation zone are older people, but that constitutes over 8,600 older people, the largest single population of older people living in that vulnerable zone in New Zealand. The regions in 2006 with the largest numbers of older people living in the 0-<3 m coastal elevation zone are:

- Canterbury – 8,605.

- Hawkes Bay – 3,203.
- Auckland – 2,915.
- Wellington – 1,676.
- Bay of Plenty – 1,649.
- Waikato – 1,194.

The exposure of older people to river flooding is even more difficult to establish as is the exposure of older people to stormwater flooding in rural areas. RiskScape currently being developed in New Zealand provides some ability to measure vulnerabilities where base data is available to both model flood events and to assess impacts on buildings and people. The availability of the data necessary to drive that modelling is one of the limiting factors. Nevertheless, four case studies were undertaken in areas in which there a significant proportions of older people around specific floodplains: Takaka River (Tasman District), Maitai River (Nelson City), Otaki River (Kapiti District) and Ngaruroro River (Hastings District). Flood inundation hazard impact and losses were modelled for all cases. For the Matai River the storm-tide inundation hazard impact and losses were also modelled.

For the Takaka River (Tasman District), Maitai River (Nelson City), and Ngaruroro River (Hastings District) RiskScape shows differences in the estimates of damage and impact. It also highlights a number of dimensions around flood impacts and recovery. Many of these are consistent with the experiences reported by older people participating in this research and living in communities affected by flooding. They are as follows:

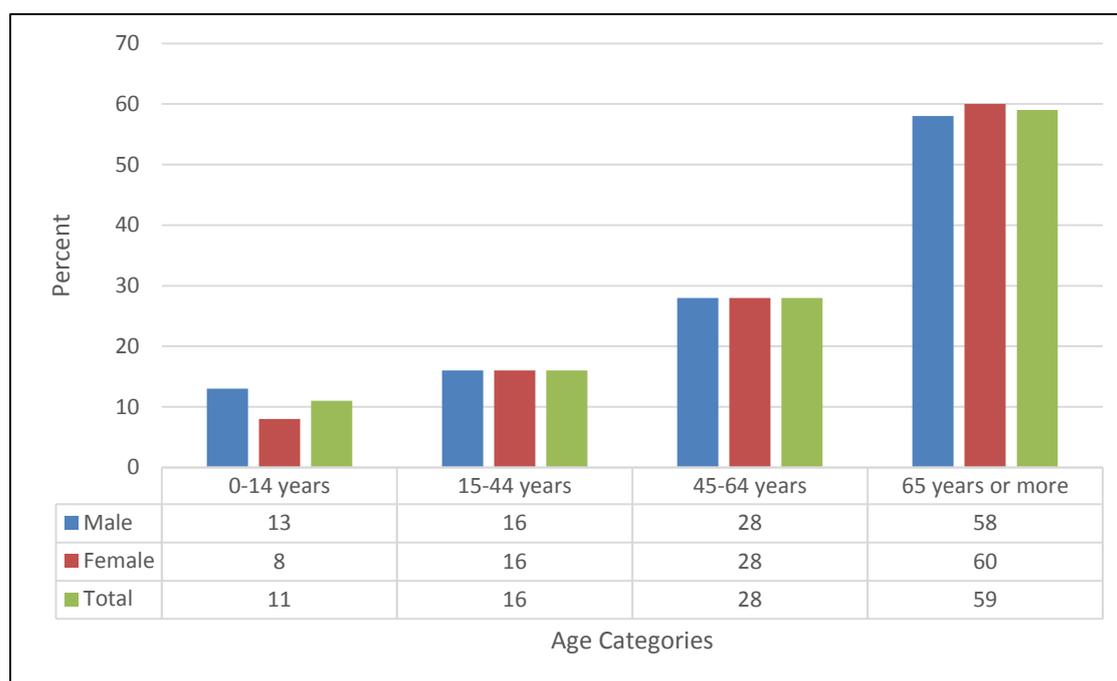
- Residential dwellings are vulnerable to significant flood events and under some conditions and in some areas the majority of the building stock affected will be residential.
- Where residential stock is affected proportions vary but in some areas up to 85 percent of residential stock could be affected by 100 year or 200 average recurrence interval (ARI) floods respectively.
- In some areas the building assets affected by even 20 year ARI floods may be primarily residential rather than commercial or industrial.
- When residential buildings must be evacuated due to flooding between two-fifths and two-thirds of displaced people can expect to be displaced for longer a month and in some cases up to six months.

### ***Older People, Functionality and Disability***

For many years there has been a complex debate around the relationship between ageing, disability, functionality and extended life expectancies. Within that unresolved debate there are two broad positions. One position argues that extended lives will increase the burden of disability within communities because ageing is associated with functional impairment. The other position argues that in western societies longevity provides a productive dividend because better health care and nutrition mean that the

onset of disability is delayed and the extent of disability reduced. That is, older people today are ‘younger’ functionally than older people of yesterday.<sup>9</sup> The likely outcomes of that continuing debate are unclear. What is clear is that older people do have higher rates of disability than younger people. The 2013 Health and Disability Survey estimates that the rate of disability in the population aged 65 years and older is more than twice the rate of those in the 48-64 year old category (Figure 3.1). Around 370,000 older people have some sort of disability. The most prevalent disability types are physical disabilities and sensory disabilities (Table 3.2).

**Figure 3.1: Rate of Disability by Age (NZ Health and Disability Survey 2013)**



**Table 3.2: Disabled Population by Impairment Type by Age (NZ Health and Disability Survey 2013)**

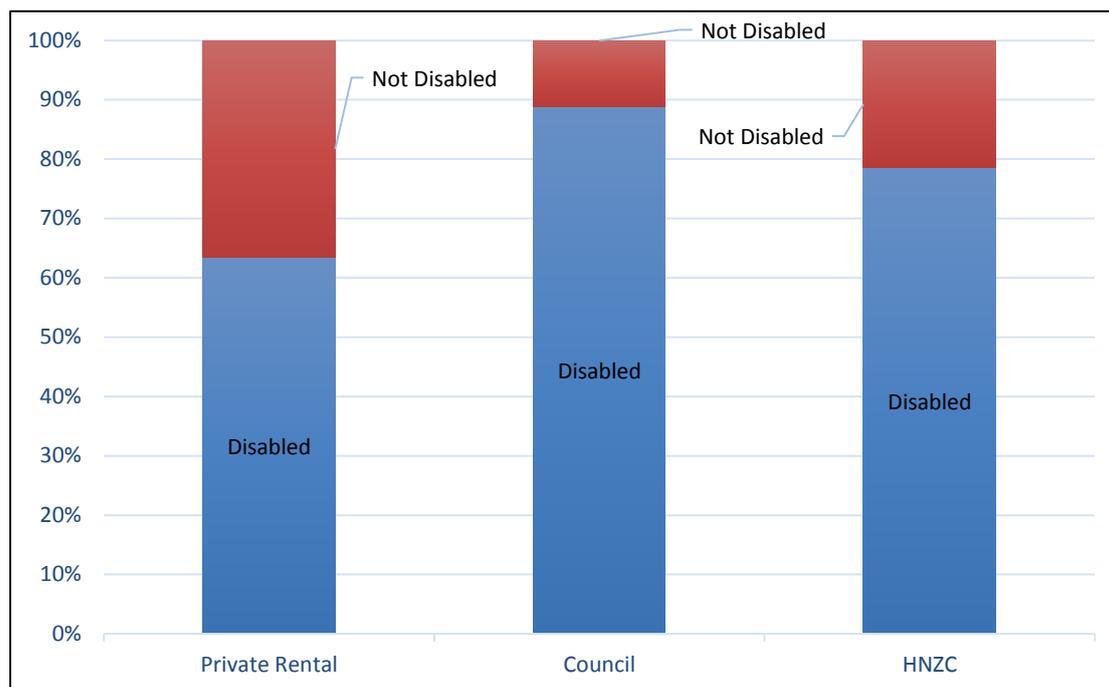
Disability Type	Population with a Disability (000)				
	All Ages	0-14 years	15-44 years	45-64 years	65 years or more
Sensory	484	18	98	162	206
Physical	632	13	122	190	307
Intellectual	89	22	37	17	13
Psychiatric/psychological	242	38	102	67	35
Other	358	70	106	93	88
<b>Total</b>	<b>1,062</b>	<b>95</b>	<b>283</b>	<b>314</b>	<b>370</b>

<sup>9</sup> CRESA, Public Policy & Research, and Auckland Disability Resource Centre, 2007.

### *Older People, Dwellings and Households*

Over 96 percent of all people with disabilities live in their communities. The vast proportion of older people also live within their communities. Notably among older tenants, the disability burden falls most heavily on those living in council rentals (Figure 3.2).

**Figure 3.2: Disability among Older Tenants by Landlord (NZ Health and Disability Survey 2013)**



Importantly in the context of adverse events and access to support during and subsequent to adverse natural events, older people are much more likely to live alone than younger people. The 2013 census data on household composition has not yet been released, but projections suggest over a quarter of households by 2031 will be one-person households and about 12 percent of the population will be living alone. Almost three-quarters of the growth in one-person households will be from people aged 55 years or more.<sup>10</sup>

<sup>10</sup> Statistics New Zealand, 2013.

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#### 4. POSITIVE AGEING AND RESILIENCE IN NEW ZEALAND

New Zealand's Positive Ageing Strategy (2001) is the guiding framework for developing policy with implications for older people.<sup>11</sup> The Strategy promotes ideas about older people being able to stay in their homes and communities for as long as possible, and participate in their communities in ways that they wish. Although there is no explicit focus on natural hazards or emergency planning, one of the Strategy's goals shows the importance of place-based policies and services to help older people to age safely and securely in their own communities. Since the inception of the Strategy, councils have developed their own positive ageing strategies or documents and have been involved in activities to support older people to age well in place. Although councils are no longer explicitly encouraged to develop their own local positive ageing strategies, many have continued to use the national framework and goals to develop their policies to support older residents.

Positive ageing requires individual and community resilience. So too does recovery from an adverse natural event. There has been a significant paradigm shift in emergency management policies and planning, resulting in greater emphasis on the social dimensions of hazards, identification of vulnerable communities, community participation in hazards planning and building community resilience. There has been a shift from reliance on controlling hazards and emergency response and recovery, to planning for hazard-resilient communities. This is demonstrated by the framework of the Civil Defence Emergency Management Act 2002.<sup>12</sup>

As well as having important roles in supporting and providing age-friendly environments that help older people to age well in their communities, councils have significant responsibilities for emergency management planning and response. The Civil Defence Emergency Management Act 2002 requires the establishment of Civil Defence Emergency Management (CDEM) groups, which are based on existing regional council boundaries. There are 16 CDEM groups in New Zealand.<sup>13</sup> CDEM groups are legally required to prepare a CDEM group plan for their area. As well as their involvement in a CDEM group, some councils also have their own local CDEM plans and documents that set out local procedures and responses. Councils also provide CDEM information on their websites.

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<sup>11</sup> <http://www.msd.govt.nz/what-we-can-do/seniorcitizens/positive-ageing/strategy/>

<sup>12</sup> Glavovic, B. 2010; Glavovic, B. *et al.*, 2010; Mitchell, A. *et al.*, 2010.

<sup>13</sup> [http://www.civildefence.govt.nz/memwebsite.NSF/wpg\\_URL/For-the-CDEM-Sector-CDEM-Groups-Index?OpenDocument](http://www.civildefence.govt.nz/memwebsite.NSF/wpg_URL/For-the-CDEM-Sector-CDEM-Groups-Index?OpenDocument)

To encourage a nationally consistent approach, the Ministry of Civil Defence and Emergency Management has made suggestions about the critical elements a CDEM group plan should contain, a suggested structure and detailed descriptions of what should be included in each section. While there is no explicit reference to the needs or vulnerabilities of the older population, some of the identified components of a plan can enable, but do not necessarily require, a focus on the older population.

Those include:

- A description of the risk profile
- Risk reduction
- Organisational and community readiness
- Response planning and recovery planning.<sup>14</sup>

Ministry guidelines suggest that at each stage of the planning process, the planning team should address the needs of ‘at risk’ groups in the community.<sup>15</sup> There is also a guide for community engagement: *Community Engagement in the CDEM Context*. Again, this document does not specifically consider older people, although it does suggest that community engagement planning includes profiling the age structure of the community and identifying vulnerable groups.

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<sup>14</sup> CDEM Group Plan Review Director’s Guideline for Civil Defence Emergency Management Groups [DGL 09/09].

<sup>15</sup> Ministry of Civil Defence and Emergency Management 2002 Working Together: Developing a CDEM Group Plan Director’s Guidelines for CDEM Groups [DGL 2/02].

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## 5. CIVIL DEFENCE AND EMERGENCY MANAGEMENT

This section looks at the extent to which older people's specific needs and circumstances are taken into account in councils' emergency management planning documents. Fifty-two CDEM plans and documents were analysed. They comprised: 23 group plans and regional documents and 29 local plans and local documents.

Less than half of the CDEM plans and documents (22) had a reference to older people. Five had two references and three had three references. The most common type of references was to the population age profile of the area covered by the plan, and to older people as a "vulnerable group". There were eleven references to the age profile of the population. Most of those references simply noted a higher than average population aged 65 and over in the area, the proportion of the population aged 65 and over, and/or a high median age. Two documents identified broad locations with a higher concentration of older residents. Those were:

- Wellington Region CDEM Group Plan.
- Waikato CDEM Group Plan.

A few documents suggested the presence of an older population may have some impact on CDEM planning and procedures, but did not elaborate on the nature of the impact, nor how it would be addressed. The following illustrate this tendency.

*An aging population ... will create increased issues for CDEM capacity in this area ... Implications of Waitaki district profile for Civil Defence Emergency Management include: ... the elderly who have decided to retire to the Waitaki district. (Waitaki CDEM Plan 2012-17:vi; 18)*

*Implications of the West Coast's regional profile for civil defence emergency management include: ... an increasing elderly population. (West Coast CDEM Group Plan 2010:7)*

Eleven documents made a general reference to older people as a vulnerable population, or as presenting a risk factor. Most references simply noted that residents aged 65 and over are more vulnerable in an emergency and did not specify the nature of their vulnerability, or how it might differ in relation to different types of adverse events.

Three plans specifically noted the vulnerability of older people to such hazards as tsunamis, drought and extreme heat, as well as health risks to older people in an eruption. Those are:

- Wellington Region CDEM Group Plan
- Chatham Islands CDEM Group Plan
- Northland CDEM Group Plan.

Four plans identified circumstances that contribute to older people's vulnerability, in particular older people living alone, lacking access to transportation and living in aged residential care. Those are:

- West Coast CDEM Group Plan
- Southland CDEM Group Plan
- Kawerau District Council CDEM Plan
- Nelson Tasman CDEM Group Plan.

There were three references to older or disabled people having special needs in an emergency. However, those references did not describe the nature of special needs, or how those needs would be addressed. Those are:

- Canterbury CDEM Group Plan
- Wellington Region CDEM Group Plan
- Otago CDEM Group Recovery Plan.

Suggestions for meeting older people's needs tend to be contained in preparedness information targeting individuals and householders rather than in plans. Even in those informational documents, the needs of older people were often covered implicitly under the needs of disabled people. Suggestions for older people and people with disabilities contained in preparedness documents included:

- Getting assistance from family, friends or others to develop a personal emergency plan, including how they would be informed if an emergency occurred.
- Ensuring mobility aids are included if the person is evacuated.
- Storing additional items and aids needed for an emergency, such as batteries, medicine, medical information or special food.
- Advice for how those with mobility or sensory impairment can protect themselves in an emergency.

Two plans identified older people as a specific target group for emergency information as part of the 'readiness' phase. Both plans identified older people as an audience for information to raise awareness about emergency preparedness. Those were the:

- Southland CDEM Group Plan
- Northland CDEM Group Plan.

The need for raising awareness among older people was noted in the Southland CDEM Group Plan in the following way:

*The current issues in relation to readiness include: ...ensuring that the method of raising awareness and capability is targeted to the Southland community which has factors such as high levels of rural and elderly residents (Southland CDEM Group Plan 2012-2017:50).*

In addition three councils made references within their plans to other aspects of older people and their needs. One, Canterbury CDEM Group Plan, identified an organisation for disabled people that is able to help civil defence organisations in an emergency. Gisborne District CDEM Plan identified older people as a welfare priority for emergency response networks. Waikato CDEM Group Plan identified older people as an evacuation priority by stating:

*The elderly are also more likely to be part of non-vehicle households. Eastern coastal towns have higher than average numbers of elderly residents. Rest home residents are likely to need assistance in evacuating ... the elderly living alone, people with disabilities and low income people ... are also more likely to need shelter in evacuation centres due to their inability to leave the area on their own accord (Waikato CDEM Group Evacuation Plan 2012:12).*

## 6. POSITIVE AGEING RECOGNITION OF ADVERSE EVENTS

In June 2013, 34 of 78 councils had positive ageing documents. Those included a range of policy, plan and strategy documents. Forty-four councils had no document that was identifiable as a positive ageing policy, strategy or plan.

Of the 34 councils with positive ageing documents, almost half the councils (18 councils) made references in those documents to activities they undertake to support older people's preparedness, response and recovery in an adverse natural event. Most councils identified only one activity, although one council noted five areas of activity.

One council noted that it is developing a greater emphasis on its older population in its emergency planning:

*The civil defence team is undertaking work to provide better support to high risk groups (including the elderly) in emergencies. This includes providing an integrated welfare response and community evacuation processes, and developing a communications plan (Thames-Coromandel District Council Draft Positive Ageing Strategy – Supporting Information 2012).*

Table 6.1 sets out the activities identified by councils as specific actions for CDEM in their positive ageing strategies.

**Table 6.1: Council CDEM Activity Stated in Positive Ageing Documents**

<b>Council CDEM Activity Stated In Positive Ageing Documents</b>	<b>Number of councils</b>
Provision of information on preparedness	10
Encourage community support networks	7
Identification of older people's needs and risks in CDEM documents	5
Better coordination of CD emergency responses to older people	2
Promote use of older volunteers in emergencies	2
Acknowledgement of older people's contribution to community resilience	2
Consultation with older residents	1

*Multiple response*

The most common reference, found among ten of those eighteen councils was to the provision of information to older people to help them plan and equip themselves to be better prepared for a civil defence emergency, including raising older residents' awareness of civil defence emergency procedures. One of those councils included the dissemination of emergency management information to aged residential care.

Examples of references to information provision include:

*Older people are encouraged to plan and equip themselves for such events and Civil Defence staff provide information on how to do this (Dunedin Older Person's Policy 1997:14)*

*Promote to older people the need to have a current emergency kit (Kawerau District Council Positive Ageing Strategy 2012-2015:4).*

*Disseminate information relating to preparing for emergencies to elderly people and people with disabilities (New Plymouth Positive Ageing Strategy 2010-2020).*

*Advertise emergency management in older people's residential facilities (Porirua City Council Older Person's Strategy 2005-2015:12).*

Seven of the eighteen councils that made references in their positive ageing documents to activities they undertake to support older people's preparedness, response and recovery in an adverse natural event, stated that they would encourage existing community networks such as neighbourhood support, or the establishment of a buddy system, to support older people in the event of an emergency.

Two examples of that approach are:

*Emergency response planning provides for the vulnerable and immobile members of the community (including the infirm elderly) through utilising a buddy system in the event of a significant tsunami event striking the Coromandel Peninsula's east coast (developed in Whitianga to date and to be applied to other east coast communities). (Thames-Coromandel District Council Draft Positive Ageing Strategy – Supporting Information 2012).*

*Retired people are the most likely to be active and committed to developing and maintaining Neighbourhood Support programmes in rural – and urban – areas, mainly because of their presence at home during daylight hours and their strong local networks (Whangarei District Council Positive Ageing Strategy 2005-2015:23).*

Five councils noted in their positive ageing document that their CDEM plan should consider the needs of, and risks facing, older people. Specific details about needs and risks were not articulated, although one council noted that lack of access to telecommunications limits the ability of people with disabilities (including older people) to obtain information and can pose a threat to safety.

Two councils noted an intention to promote better coordination of agency responses and service delivery to older people during emergencies. Specific actions included:

- Promoting continuity planning among key agencies to ensure delivery of services during emergencies.
- Supporting non-government organisations to develop emergency management plans.
- Working with other agencies at older people's fora.

One example of this approach is in the Whangarei District Council's Positive Ageing Strategy:

*Because of their past experiences (e.g. the 1930s depression years, war and natural disasters), today's older people are open to hearing safety messages and preparing for all events. Council could work with other organisations (e.g. fire safety and regional civil defence organisations) to establish regular reminders and interactive training about fire and civil defence emergency procedures at fora where older people are present. This would help to increase older people's awareness, encourage preparedness, and enhance their ability to act appropriately in a civil defence emergency or fire situation (Whangarei District Council Positive Ageing Strategy 2005-2015:25).*

The value and contributions of older people were acknowledged by just a few councils:

- Two councils intend to promote the use of older volunteers in key emergency response agencies.
- Two councils noted that older people contribute to community resilience through their knowledge and life experience.
- One council explicitly stated that it would consult and seek advice from older residents on appropriate responses in CDEM plans for the wellbeing of older people.

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## 7. SILOING POSITIVE AGEING AND CDEM

To return to the two questions posed in the introduction to this report:

- To what extent are older people's specific needs and circumstances integrated with emergency management policies, preparation and planning?
- To what extent are older people engaged in planning for resilience in the face of adverse natural events?

Overseas research has shown a lack of visibility of older people's experiences of adverse natural events and the challenges they face in recovery. Civil defence planning documents tend to inadequately address how to practically respond to older people and there is a lack of consultation with older people as part of planning. There is also a lack of self-preparedness information for older people that is effective and appropriate to their needs.<sup>16</sup> If there is any focus on older people in civil defence planning at all, it tends to be concentrated only on aged-care residential facilities, yet the very large majority of the older population do not live in institutional settings, but reside in their own homes in the community.

Furthermore, the diversity of the older population is often not taken into account in emergency management planning. While many older people do live on their own, which may make them more vulnerable in a disaster, an increasing number of older people are the primary carers for children, or have other family members whom they care for at least part of the time. Their needs in an emergency may be further complicated by those caring responsibilities. There are also some older people who have no immediate family, their relatives live far away, or are unwilling or unable to provide support. They may be much more vulnerable in an adverse natural event, and need more assistance during the event and in recovery, than those older residents who are well linked into local networks and services.

The deficiencies in emergency planning noted overseas are also apparent in New Zealand. Our analysis of preparedness, response and recovery documents, as well as positive ageing documents, has shown a tendency to focus on older people as a homogeneous group that is, simply because of age, expected to be vulnerable in adverse natural events. This echoes the common use in disaster literature of the proportion of the elderly population in a location as a negative indicator of disaster resilience.<sup>17</sup> The term 'vulnerable groups' is often used as a 'catch-all', with diverse populations treated as if they have similar risk patterns and determinants.<sup>18</sup> This approach ignores the ways in which older people can be resilient, even though they may also have some vulnerabilities.

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<sup>16</sup> Cornell, V. et al 2012; Hutton, D. 2008; Marshall, I and S. Mathews, 2010.

<sup>17</sup> Cutter, S. et al 2010.

<sup>18</sup> Carswell, S. 2011; Rouse, H. 2011; Reese, S. et al 2011; Manning, M. et al 2011.

Our analysis of council documents suggests that older people's specific needs and circumstances are not well integrated with emergency management policies, preparation and planning. Nor is there evidence that older people are routinely involved in planning for emergency events and building resilient communities.

Indeed two problems emerge. First, the level of specificity of action, targeting and performance on positive ageing and around older people within the CDEM is low. Much of what is written in council documents is nebulous. Often it merely repeats national guidelines. There seems little attempt in many councils to specify or operationalise what they actually wish to achieve and how they would achieve it. The second problem is that there is a disjuncture and siloing between concepts of resilient communities, positive ageing and the CDEM.

Notwithstanding the provisions of the CDEM Act that support community participation and the development of resilient communities, there is still a gap between this framework and practice. In general, understanding of the social dimensions of hazards and the social characteristics of at-risk communities needs to be increased and more meaningful opportunities for community involvement in emergency management planning ensured.<sup>19</sup> These 'gaps' are particularly apparent when the treatment of the older population in emergency management policies and planning is examined.

In summary, the preparedness, response and recovery documents that we have examined simply make high level references to older people as a vulnerable group, rather than identifying specific characteristics that contribute to vulnerability, such as disability, frailty, chronic health conditions, lack of access to transport, low income, reliance on home care support, or living in aged residential care. There is little indication in the documents of how the identified needs of vulnerable older people will be addressed in a specified location.

There are almost no references to working with a range of organisations to plan for and respond to emergencies, although two council positive ageing documents mentioned coordination of agency responses and service delivery to older people during emergencies. Examples of obvious organisations to involve in planning to improve older people's recovery are home support providers, health providers, pharmacies, older people's advocacy and support organisations, local information networks such as Citizens Advice Bureaux and Community Law Centres, transport services, churches and faith-based organisations, iwi authorities and marae, insurers, and providers of housing for older people. The importance of community organisations as key responders that are essential for recovery was noted in lessons learned from the Canterbury earthquakes.<sup>20</sup> Response teams in Canterbury also used the national health

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<sup>19</sup> Glavovic, B. 2010; Mitchell, A. et al 2010; Rouse, H. 2011.

<sup>20</sup> McLean, I et al 2012.

assessment tool InterRAI in a new way to coordinate response and organisational support for the sizeable population of frail older people living in the community.<sup>21</sup>

There are very few references in the emergency documents about directly engaging with older people to identify the particular ways in which some older people may be vulnerable, what their needs are, and how older people's capabilities might contribute to community resilience. Very few of the documents consider the potential for using older people's skills, local knowledge of hazards and vulnerable areas, possible previous experience of adverse natural events, and coping mechanisms through life experience that give them some resilience.

Finally, only a few linkages were found between emergency management documents and positive ageing documents. Including positive ageing principles in emergency management planning would help to both strengthen analysis of the social dimensions of hazards, and develop meaningful engagement with communities. This is especially important for areas where older age groups are a growing proportion of the local population.

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<sup>21</sup> Downes, A., 2011.

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## 8. LEAKING WELLBEING AND RESILIENCE

The gaps that emerge from this siloing of community resilience, positive ageing and CDEM are very evident in the experiences of older people who participated in this research. Their experiences add to a raft of research in New Zealand about the issues arising from response and recovery in various adverse natural events.

In the context of this research, in-depth interviews were conducted with people aged 60 and over directly affected by floods in Tasman, Nelson and Marlborough districts. In all, 23 interviews were carried out with 28 people (including five couples). In addition, eleven focus groups were conducted with older people, both those who had been directly affected by floods and others living in areas vulnerable to flooding or other extreme weather events.

This section brings together material from those in-depth interviews and focus groups with older people about the issues, needs and problems they faced in floods, and how those could be better addressed through emergency planning and managing response and recovery processes. These matters are not only for councils to consider, but for all organisations (public agencies, private sector and community service providers) that may have a role in preparation, response and recovery. As other research has also shown, often the actual event is not the most traumatic part; coping with the aftermath and the myriad agencies involved in cleaning up, dealing with insurance, managing repairs, restoration of infrastructure and finding accommodation are often more stressful.<sup>22</sup>

Older participants in this research identified a number of issues that may be able to be better planned for and managed. Many of these issues have been identified in other research.<sup>23</sup> These issues included:

- Anxiety about being left to cope alone
- Agencies' lack of understanding of feelings of loss
- Timeliness and appropriateness of help
- Poor management of access in and out of affected neighbourhoods and communities
- Lack of timely information
- Agencies' lack of recognition and use of locals' skills and knowledge
- Accommodation worries
- Stress and health impacts
- Extra financial burdens
- Lack of information about emergency preparation.

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<sup>22</sup> Whittle, R. et al 2010.

<sup>23</sup> For example, Whittle, R. et al 2010; Tierney, K. 2009.

### ***Anxiety about being left to cope alone***

Increasingly, the message given by civil defence and emergency management organisations are that in an emergency residents must be prepared to manage at home and look after themselves for at least three days. The message is clear that emergency services will not be able to help everyone as quickly as needed.<sup>24</sup>

This message is not always clear in its intent. For those who have been through a traumatic experience, it seems to be a message particularly hard to accept. Some of those who have experienced major floods considered that local civil defence, councils and other response organisations were not visible in the first few hours or days after the event.

With regard to the immediate response, comments included:

*“Nobody in authority checked on us or came to us to see if we were alright. I felt very lacking in support ... I feel that they didn't make any effort to see if we were alright.”*

*“I was really mad about all the people like us out further, with no civil defence coming to see if we were safe.”*

While those in households that were cut off for days said they managed, questions were also asked about how older people, particular those who are frail or with health conditions, can be assured that they will be contacted and help provided if required. There were concerns that those older residents new to an area, or without close friends or relatives nearby might not be part of networks that would ensure people were checked on.

*“The electricity was off for a couple of days. We couldn't get out with the car ... we were four days without the car. We couldn't walk out for a start because the channel was right across the road”*

*“There was no contact from anyone official for two days. We were completely cut off.”*

### ***Agencies' lack of understanding of feelings of loss***

Retired people tend to spend more hours at home than working age people and develop strong attachments to their surroundings – consequently the damage to their home environment can hit particularly hard. There were several examples where older people felt that their experiences in the event and afterwards were belittled. What was important to them, and what they valued were made light of.

It was not just the loss or damage to the physical dwelling that they were concerned about. For some, the loss of a productive vegetable garden and fruit trees, or trees with special meaning were more important than the dwelling itself. Some experienced a loss

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<sup>24</sup> See Get Ready Get Thru pamphlet available for download at <http://www.getthru.govt.nz/downloads>

of identity and purpose with the loss of their home environment; this could include the loss of their ability to care for other family members in their home. Others felt a loss of a sense of security in a place where previously they had been comfortable and safe. Comments included:

*“The EQC attitude was ‘you’re not that bad’. They were dealing with earthquakes.”*

*“Half the garden has gone down the hill, and the orchard and native plants. I had a lot of threatened species. I can’t restore them because the land has gone.”*

*“We feel completely different about being here now. It was our sanctuary garden and self-reliance ... People don't understand what we've been through, don't understand why you don't get over it quickly. They make light of it – ‘It's only gardens’, but it was our life.”*

*“I felt very vulnerable because of the empty house next door covered in mud. Young guys were using it as a right of way.”*

### ***Timeliness and appropriateness of help***

Older people were very appreciative of the help received, however they made some observations about the timeliness and appropriateness of help. It was noted that offers of help with the clean-up, while practical, can come too early, before it is clear what type of help is most useful. One couple talked about their experience:

*“We got offers of help from a business and a church, but it came too early. We didn’t know what help we needed. We appreciated it and they did some of the clean up on the outside, but we were struggling to cope ourselves, let alone trying to think about what help we needed and organising someone else.”*

Others also noted the importance of ensuring that the type of response is right for what is needed at the time. Some of the most useful responses reported by older people were:

- Help with packing up household goods.
- Washing clothes and household linen for householders.
- Provision of storage facilities.
- Provision of areas under cover where household goods could be dried out.
- Provision of free skips and rubbish disposal.

Several older people commented on the ‘ups and downs’ of recovery. It was not a smooth or predictable process. Sometimes help is needed over lengthy periods of time. For example, it could take at least six months for a dwelling to dry out so that repairs could be started. There could also be months waiting for electricity to be reinstalled, for the sewerage system to be fixed and for potable water supply to be reliable. On-going problems with sewerage and drinking water supply were experienced. A few people reported still not having vehicle access to their property over two years after flooding occurred.

There was criticism of a lack of on-going liaison between affected residents and agencies over the weeks and months of clean-up and getting back to normal. The clean-up is often particularly hard to manage. Some older people are able to manage the clean-up themselves. However, others find it difficult because of declining physical abilities, the scale of the job, or because they do not know how to assess and organise what needed to be done.

Past experience and connections were important here. One older person whose house was entirely filled well above his knees with debris and silt from a land slide commented that his previous work as a site manager had been invaluable:

*“It was just an issue of project management. But then I also could call on those guys that I had managed for years. I had a big gang of burly guys digging out mud for a week. I was really lucky I could call on them.”*

But another older person just found it bewildering:

*“Cleaning up was terrible, and not knowing what to do next.”*

### ***Poor management of access and dealing with infrastructure***

For some, it seemed like clearing roads and getting big machinery into an area was being treated by councils and contractors as an end in itself. The purpose of roads – to allow people in and out of areas and to connect and distribute goods and services was forgotten.

The experiences of one community illustrates shows how poor decisions about controlling access in and out of their area inhibited residents’ ability to help themselves and created unnecessary stress:

*“When the slip was cleared, we took the 4 wheel drive to get supplies for us and neighbours. When we had picked up supplies and were going back home, there was a road block and we weren't allowed to go through (not for 24 hours). They let us out of the road block, but not back in again. I threw a wobbly, asked why they couldn't stop the heavy machinery at some point to let cars through. They said we would have to find somewhere to sleep for the night. It was really inhumane. We just sat there. They said to go and have a cup of tea with Red Cross at the Hall. About half an hour later, we were let through with a police escort! I think the police sorted it out with the contractor.”*

Residents in other areas talked about problems in getting access restored to their properties and uncertainties over the length of time it would take. One couple were waiting over three years for vehicle access to be restored to their property. Others noted:

*“One of the worst things was that the biggest digger came and flattened our whole entrance.”*

*“Some idiot put a digger on the culvert and smashed it. Council had to replace the culvert and put in a bridge for me. They just send in diggers without any real plan.”*

### ***Lack of timely information***

In the long recovery period, some experienced difficulties in contacting agencies and getting information about what was happening:

*“The council went on holiday, so whenever I rang them up I was put through to a call centre – they didn’t even know how to spell [my location].”*

*“We didn’t know what was going on. We were told nothing by council.”*

*“There were so many things that we were told that we reacted to that just weren’t right. Then someone else came along and told us something else. Initially we were told that neither EQC or insurance would cover anything.”*

Others suggested that householders should be kept informed about flood control work.

*“I would have liked the council to send someone to come around to talk to me about the storm water ... It would have been nice if the council had been in touch with older people.”*

The importance of appointing workers with the right ‘people skills’ as key contacts was also highlighted. One person suggested appointing a person with appropriate skills to work with older people affected by an event, to provide them with information and practical assistance to access the help they need. Others said:

*“In our experience the chosen civil defence people were not people you could communicate or really share what was going on with.”*

*“These agencies come and do more of an upsetting role than smoothing things out.”*

### ***Agencies’ lack of recognition and use of locals’ knowledge and skills***

Older residents, because of the time they spend at home, are often the only ones ‘on the spot’ when things happen and their ability to help others can be critical. Some are long-time residents of an area and may have held positions of benefit to planning for and managing emergencies. Several pointed out that they had knowledge of their local area, the history of flooding, local flood infrastructure and changes in land use.

*“Things were getting out of control, contractors doing clean up weren’t talking to locals and using local knowledge.”*

*“They really are not prepared to think about it. The problem is the bend and the culverts downstream... But they just send in diggers without any real plan. Developments have really changed things but they won’t admit it.”*

*“For a long time I looked after the water supply here. I got in touch with some elderly gents who knew the early days and what happened to the water before they made the diversion. [flood water] would still come back to this low point. It would go along the hill”.*

*“Not one thing has been done about replanting the hill sides with native trees. That’s what we’ve got to get back to. Native trees clean the waterways. Things like harakeke. We should be planting harakeke all around so it cleans the water that comes off the hills.”*

Several said they would have appreciated the opportunity to contribute ideas to planning and operational responses. They identified a range of skills and knowledge they have which they can share with others in an emergency. These include: organisational and management skills, camping and outdoor living skills, knowing how to make a fire to cook on, making a temporary toilet, knowledge about food storage, knowledge about bulk water collection and storage, and having equipment to share.

### ***Accommodation worries***

A range of concerns were expressed about accommodation. These included:

- Uncertainties over the length of time in temporary accommodation before being able to return to one’s home.
- Additional costs incurred with temporary accommodation and worries over whether the insurer will agree to extend payments for accommodation.
- Shortage of accommodation with little choice.

Some expressed fears about additional repairs and remediation being unmanageable and forcing the householder to mortgage the dwelling, or to sell and move to rental housing, a retirement village or into aged residential care. There were fears that the work would be unmanageable, both financially and in terms of organising and managing the processes involved. Comments included:

*“As an older person, it’s too much money to spend on the house. You don’t want to be a worry to family, maybe I should go live in a retirement village.”*

### ***Stress and health impacts***

Older people reported stress and some also reported effects on physical health including heightened anxiety, exacerbation of existing medical conditions, or new illnesses:

*“Since this has happened I’ve got asthma. It’s stress related. I’m still vulnerable. It’s an on-going saga ... It’s very hard dealing with things when you’re under a lot of stress. You’re very angry, and they think you’re a silly old person.”*

*“If there’s a storm, I’m anxious. We have had another flood in July 2013. It only came up to the concrete. Very stressful, don’t know how high the water will come up. The other stressful thing is, we can’t sell the property, there’s just no interest.”*

*“I’m still concerned about the possibility of run-off from neighbours in a big rain.”*

*“A lot of people were really traumatised. Later on someone sent me a list of the characteristics of trauma and I had all of them. I hadn’t realised.”*

### ***Extra financial burdens***

Older people noted additional expenses that were not necessarily covered by the level of insurance compensation. These included additional repairs or remedial site work not covered by their insurance. Some have had to take on a mortgage to cover expenses, or to sell their property in order to manage the financial burden. Some suggested that those whose houses are uninhabitable and the site is unable to be re-built on (they have received a section 124 notice under the Building Act) should receive a rates remission.<sup>25</sup>

### ***Lack of tailored information about emergency preparation***

Levels of emergency preparedness varied a lot among the older participants in this research. Some older people are well equipped, have planned for an emergency and know how to survive. But there is also a certain fatalism about the inevitability of an event, and casualness about preparedness.

Specific needs of older people were identified by older people themselves. For example, some advice on how to protect oneself in an earthquake is impractical for the frail and those with mobility impairments. For those who can't easily bend down or get up off the floor, the universal 'drop cover and hold' advice is not a practical approach. A lot of older people are not aware that there are specific recommendations for disabled people and frail elderly regarding how they should protect themselves in an earthquake. Such information is on the internet, but it can be hard to find, and many older people do not have access to the internet or are not adept at searching for information.<sup>26</sup>

There was also anxiety around ensuring the safety of pets. Information is available about how to ensure pets are safe in an emergency, however, many in the interviews and focus groups did not know what to do about their pets. One person talked about his neighbours, who refused to be evacuated because they did not want to leave their pets. Information about local shelter options for pets would be useful to include in preparation information for older people.

Storing water also poses practical difficulties for older people.

*“They say that the most important thing is water but how do you store it all.”*

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<sup>25</sup> Christchurch City Council offers rates relief for residential buildings unable to be occupied due to earthquake damage. See <http://resources.ccc.govt.nz/files/Homeliving/ratesvaluations/ratesresidentialform-april2011.pdf>

<sup>26</sup> Some examples of advice for older people and disabled  
[http://www.civildefence.govt.nz/memwebsite.nsf/Files/Disability-disaster-preparedness/\\$file/Disability-disaster-preparedness.pdf](http://www.civildefence.govt.nz/memwebsite.nsf/Files/Disability-disaster-preparedness/$file/Disability-disaster-preparedness.pdf)  
<http://www.marlborough.govt.nz/Your-Council/News-Notices/News/Positive-Ageing-Quake-Preparation.aspx>

*“I’m 91, helpless physically. We’re told to store water. I can’t lift heavy water containers. I have 3 litre containers of water all around the house.”*

Some were also concerned about keeping extra money on hand as they felt vulnerable:

*“We’ve been told you’ve got to have money because Eftpos will be down. But where do you put it?”*

Many older people said that they have their emergency kit, but they sometimes do not know how to use items such as: gas camp cooker, wind up radio, survival blanket, fire blanket.

One focus group concluded that it is insufficient to give presentations to groups of older residents. It is much more effective to use small groups to demonstrate how to use emergency equipment and enable people to practise the use of sometimes unfamiliar items. It is also helpful for individuals to receive one-to-one advice in their home so that their particular health or mobility needs and living circumstances can be taken into account in the advice.

*“It’s alright to have someone from civil defence or the council talk to us, but that doesn’t get to individual situations.”*

*“I have a cooker with a gas bottle but I’m scared to use it, I don’t know how. I’d love someone to show me how to use it.”*

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## 9. COUNCILS GETTING IT TOGETHER

The analysis of council documents suggests that councils rarely make systematic or practical links between emergency management documents and positive ageing strategies, policies and plans. Yet, including positive ageing principles in emergency management planning would help to both strengthen analysis of the social dimensions of hazards, and develop meaningful engagement with communities. This is particularly important for areas where older age groups are a growing proportion of the population.

The findings of the document analysis have been reinforced by our discussions with older people themselves. They pointed out a range of issues and barriers they have faced in recovering from events, which could be better addressed in plans and policies. These include:

- Anxiety about being left to cope alone
- Agencies' lack of understanding of feelings of loss
- Timeliness and appropriateness of help
- Lack of timely information
- Poor management of access in and out of properties and communities
- Agencies' lack of recognition and use of locals' skills and knowledge
- Accommodation worries
- Stress and health impacts
- Extra financial burdens
- Lack of information about emergency preparation tailored to older people's needs.

A growing literature sets out fundamental aspects of best practice in the development of civil defence and emergency management plans with regard to older people.<sup>27</sup> Key elements are:

- Enhance the visibility of older people and increase awareness of their needs and priorities in emergencies.
- Involve older people and their organisations in emergency planning so that their needs can be clearly identified.
- Include older people's issues and needs in policies, plans, guidelines and operational practices. Ensure specific needs are covered for each stage of an emergency.
- Map the locations of vulnerable older populations, hazards and support services and resources.
- Define the different categories of emergencies and hazards to better understand how specific events may affect older people in different ways.

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<sup>27</sup> See, for example, Centres for Disease Control and Prevention, 2012; Gibson, M-J., 2006; HelpAge International, 2004; Hutton, D. 2008; White, G. et al 2007.

- Identify essential agencies, organisations, and other stakeholders working with older people, and promote cross-sectoral collaboration to meet older people's needs.
- Identify specific communication needs of older people and ensure that information is effective and appropriate to older people's needs.
- Ensure that emergency services, networks and support are provided in ways to increase older people's access.
- Provide resources and support to help older people prepare their own emergency plans.
- Include care-givers in planning and in communications about emergency preparedness. Provide tools and resources so care-givers can prepare plans for older people who are unable to.
- Provide education and training for emergency management personnel about the needs of vulnerable older people.
- Develop a cumulative and comprehensive approach to emergency management for vulnerable older people by including multiple practices.

Finally, this and many other studies show that recovery from any major event such as a flood or earthquake is lengthy, resource intensive and requires long timescales to deal with issues.<sup>28</sup> Extended time needed for recovery sits uneasily with New Zealand's national framework of emergency response and recovery. Although the CDEM framework acknowledges that recovery can take extended periods of time, planning tends to be structured around discrete phases often arranged in a linear fashion. Welfare is frequently dealt with as an early phase emergency response and long term recovery tends to be focused on the restoration of the hard and public infrastructure.

The reality is the infrastructure that is important to older people and their communities includes the restoration of the hard infrastructure but it is not limited to it. Just as those undertaking infrastructure recovery constantly refer to the importance of taking time to ensure that restoration and recovery work is sound and sustainable into the future, so people, including older people, need time and support to reconstruct the social infrastructure of their lives. This is not a linear process. Nor is it one that older people can entirely control. Preparation and support for older people affected by adverse events needs to go beyond the preparation for immediate survival by assisting them to lay down a good platform for recovery after those events.

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<sup>28</sup> Whittle, R. et al 2010; Smith, A. 2002.

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