Ministerial Review

Better Responses to Natural Disasters and Other Emergencies

17 November 2017

Foreword

Anyone living in New Zealand is keenly aware that as a country we are vulnerable to geological and weather events and other hazards. The last six or seven years have been particularly eventful. Sometimes the consequences have been devastating and tragic – other times we have been luckier. The purpose of this review is to ensure that New Zealand's emergency response capabilities and framework is world leading and well placed to meet future challenges.

The measure of success has to be the extent to which the public has trust and confidence in the emergency management system. The system must lessen the consequences of an emergency - reducing death, injury or suffering, and damage to property.

In our view, ensuring public confidence in the emergency management system will require strengthening the application of current legislation, consistent with the intent of the CDEM Act, together with some changes to allow stronger national-level direction and regulation.

There are many strengths in the current system. The 'all hazards-all-risks' approach and connections to the wider national security system, the integration across the '4R's' of Reduction, Readiness, Response, Recovery, and the emphasis on engaging communities in emergency management, are consistent with international best practice.

There is clearly an enormous amount of commitment from staff from multiple agencies, volunteers and communities in responding to emergencies - this provides a good base to build on. At the same time, however, recent events have shown that the current system doesn't always work as well as it should for communities, stakeholders, and the public overall.

This review invited submissions and met with many people to understand their perspectives on the issues raised in the terms of reference. We visited regions that had recent experience of responding in a state of emergency. We heard a number of consistent themes throughout that engagement. These themes formed the basis of our views on the changes required. We tested these views further before settling on the recommendations in this report.

We looked for best practice in the emergency management systems of other jurisdictions – Australia, United Kingdom, United States and Canada.

We also considered the findings of previous reviews of responses to particular events, and reviews of emergency management systems generally. This included consideration of the findings and recommendations of reviews into recent events, such as review commissioned by Fire and Emergency New Zealand (FENZ) into the Port Hills fires, the independent reviews of the response to the Bay of Plenty weather events in April, and an internal government report on the refinery to Auckland pipeline disruption. These reviews highlight many of the same issues that we note in this review.

I am very grateful to all the organisations and individuals who wrote submissions and took the time to meet with members of the Technical Advisory Group.

I thank all the members of the Technical Advisory Group for their contributions, and the secretariat for their efforts in supporting the work of the Technical Advisory Group. The range of agencies represented highlights the many entities that need to collaborate and understand how each other works, in order to achieve 'better emergency responses'.

Roger Sowry

Chair Technical Advisory Group

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Summary and key recommendations

New Zealanders expect a national emergency management system that can be relied on to work well when needed. That calls for a system that is underpinned by clear roles and responsibilities, good information and communication, the right capability and resources, and that makes the most of local knowledge - balanced with the need for specialist expertise and national capability.

This is in keeping with the intent of the current legislation. However, practice over the past fifteen years has not always matched this intent. The result is marked variations in practice and patchy capability across the country, and different understandings about roles, responsibilities and authority.

Ensuring public confidence in the emergency management system will require strengthening the application of current legislation, consistent with the intent of the Civil Defence and Emergency Management Act (CDEM Act), together with some changes, to allow stronger national-level leadership, direction and standards.

Our recommendations are interdependent, and should be considered as a package. We believe that together they will provide New Zealand with a system that will be fit-for-purpose and well placed to meet future challenges.

Change is needed to the functions, structures, and culture at the national level. We recommend establishing a proactive *national emergency management agency* to provide national coordination and support in local emergencies, national control in national emergencies, and to lift CDEM performance overall. This includes professional leadership for the emergency management sector and a far stronger role in setting and enforcing national standards. The national agency must also provide assurance that those standards are being met. We see merit in the national director having stronger powers to direct and to ensure that responses to emergencies take account of national interests.

In all emergencies – regardless of scale – the consequences affect people, local economies, and communities. It is clear that local leadership, knowledge, and engagement with those affected communities is integral to supporting trust and confidence and to ensuring an effective response. We recommend that *mayors should have primary authority for declaring states of local emergency* under the CDEM Act. Further, we recommend providing the option to *declare a 'major incident'* in order to signal the significance of an event and achieve public recognition of the action being taken, without the extraordinary powers invoked under a state of emergency.

Organisational arrangements need to recognise that emergency response will require territorial, regional, and national capabilities in all but the most minor events. Emergencies can quickly escalate from a contained community event to a cross-district/regional emergency. The reality of how emergencies develop, the current legislative and institutional arrangements, and human nature, all contribute to the risk of not realising an emergency is beyond one's capability and capacity until far too late.

The current legislation intended that emergency management would be a consortium of territorial and regional effort (exercised through regional Groups). We are of the view that that intent needs to be strengthened. We recommend retaining the joint committee governance with iwi added. The majority view recommends requiring the development of *more formalised shared service arrangements, implemented by the regional or unitary council, to strengthen a Group-wide approach and accountability*. This would be supported with consistent Group Emergency Management Office structures.

Iwi need to have a major role in regionally based arrangements. Currently the resources, capability, and social capital of iwi to assist in emergency response is not recognised in legislation, and specific needs of Māori, whanau, hapū, and iwi are often not recognised in Group plans. We found a compelling case for iwi to be represented at all levels of the Group structure from our meetings with iwi and our reading of submissions received. As a result, we recommend *clearer protocols with iwi, and full participation of iwi in coordination and planning structures.*

There is a need for far greater professionalisation of emergency management in the CDEM system. Key roles in the system are often part-time. There is no real career path. Training and professional development is very patchy and there are no required professional standards or accreditation. Even with the best will in the world, emergency management responsibilities do not always get the priority they deserve (often an add-on to people's 'day jobs'). Despite the statutory requirement for Groups to have "suitably trained and competent personnel for effective emergency management in their areas", there is no assurance that the people on the spot will have the training, capability, or aptitude needed to respond to an emergency. No one wants response efforts being undermined by having the wrong person in the job. We recommend that *all staff in emergency management roles meet national standards for professional development and training, and key roles (for example, the Controller role) have national accreditation.*

Group effort needs to be backed with national capability that can be deployed as required. The recommendation *to establish a cadre of professionals to act as 'fly-in teams'* first surfaced in the Review of the CDEM Response to the 22 February Christchurch Earthquake. It received strong support then and was endorsed in many submissions received for this current review. There are examples of surge capacity teams deployed at the regional level, in other emergency response services, and internationally. Details of the capabilities required and the most appropriate operating model will need to be worked through. The starting point should be the functions in the CIMS[1] framework – controllers, planning, operations, logistics, intelligence (including science), communications, and welfare – drawn from the agencies best placed to provide these capabilities.

Local context and circumstances are important and must be taken into account in any response. But there is also a national interest in ensuring that the system will work when needed. There is a real need for some consistency, standardisation and agreed protocols (for example, in operating practice and procedures, structures, signage, roles and responsibilities). This allows Groups to support each other, and to help coordination (including, for example, deploying fly-in teams and managing cordons). The current legislation allows for this. Accordingly we recommend *greater national consistency and standards, and a more robust system of audit and assurance to ensure those standards are met.*

CDEM legislation is not as clear as one might expect. Regularly we heard that the authority to act, or the authority to task someone, either does not exist or is not clear. This situation can lead to a lack of coordination, no one really in charge, and the risk of poor outcomes for the community. We see a strong need to *clarify that Group (and national) Controllers have control authority - the authority to task other agencies - under a state of emergency.*

Authority must be backed by joined-up intelligence to support decision-making, with systems that allow agencies to work to a common operating picture. New Zealand's intelligence infrastructure and hardware has been inadequate in recent emergencies, although agencies individually have a lot of capability to draw on. Recent advances in technology could help provide better intelligence for

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[1] Coordinated Incident Management System (now in its second edition)

emergency management. We think *a new fit-for-purpose all-of-government NCMC[2] and 24/7 monitoring, alerting, and warning centre* is required. Further we recommend *investigating existing technologies available internationally to support a common operating picture*.

Effective responses rely on good communications to affected communities, to the public, and to decision makers. Mayors (and Ministers) will always front in emergencies, but they will need support to do that well. Social media is increasingly important, both as a source of intelligence, and as a communications channel. The Public Information Management (PIM) function in the current arrangements is primarily about information to the public through traditional channels, rather than strategic communications advice to assist Ministers and decision makers. As a result, we recommend *adding strategic communications to CIMS (and to fly-in teams),* and *ensuring timely, consistent, and proactive use of the range of appropriate channels* (for example, social media, online, radio, print, TV).

We expand on these points in the chapters that follow. Appendix 2 provides details of current arrangements. Appendix 7 also lists a number of secondary matters that came to our attention.

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[2] National Crisis Management Centre in the Beehive basement in Wellington

Chapter One: National level functions and structure

Introduction

While this is not a review of the Ministry of Civil Defence & Emergency Management (MCDEM) our findings and recommendations have marked implications for the national-level emergency management agency.

The role we envisage is a significant shift in emphasis and stance from that of MCDEM currently and raises issues about the most appropriate structure, functions, and resourcing of the national-level emergency management agency.

What we found

 MCDEM has no formal statutory responsibilities. Its primary role is to enable the Director CDEM (the Director) to meet their functions, use of powers, and duties. These include:

- advising the Minister of Civil Defence
- identifying hazards and risks of national significance
- monitoring and evaluating the National CDEM Strategy and the National CDEM Plan
- developing standards and guidelines
- monitoring performance of CDEM Groups
- promoting civil defence emergency management, and leadership, and stewardship of the CDEM system
- in a national emergency, directing and controlling the resources available for civil defence emergency management, and controlling Groups
- outside of national emergencies, coordinating the resources available for emergency management.

While the purpose and construct of the CDEM Act puts the emphasis on local authorities taking joint action (through regional Groups), the provisions of the Act allow for an assertive, and when required, directive stance nationally to ensure readiness to respond.

Over time MCDEM's approach has emphasised the importance of guidance, relationships, consultation, and suasion, rather than the use of prescriptive or directive powers in the Act. Indeed, early guidance from the Ministry (in 2002, immediately after the Act came into effect) stated that '*the Ministry has no intention to develop rigid codes of Group practice, or conduct audit programmes. It is most appropriate that Groups decide on their own performance levels or targets and evaluation programmes, within their Group Plan*' (DGL 1/02 page 11).

This approach has been appropriate for ensuring commitment to the National CDEM Strategy and Plan Order and Group ownership of their own plans and activities. Moreover it was a pragmatic response given the Act has no penalties for non-compliance with national directions outside a state of national emergency.

Nonetheless, we believe that devolution to this degree has resulted in wide variation of practice, performance, and capability across Groups, and unclear command, control and coordination authority across agencies in emergencies.

We heard from a range of submitters who echoed this view. There was a call for greater clarity and direction in the legislation (fewer 'mays' and more 'musts') and for more proactive leadership nationally - both in planning and in response. As one submitter noted, 'Wellington is good at writing guidelines and [Groups] are good at ignoring them'.

We found that MCDEM has also taken on a range of activities that are not directly related to the core business of enabling the Director to meet their statutory functions and duties across all hazards. In particular, MCDEM is the 'lead agency' for particular hazards – specifically for natural disasters (earthquake, tsunami, flood, other weather) and for infrastructure failure. MCDEM is also the lead agency for the coordination of welfare services aspects of emergency response and a number of subfunctions related to welfare services (including registration and needs assessment). These acquired responsibilities do not sit well with oversight of emergency management generally in an all hazards - all risks framework.

Options and evaluation

As later chapters discuss there is a need for a far stronger, more proactive, stance at the national level.

We consider below:

- the functions of that agency
- the organisational form of that agency, and
- resourcing considerations.

Functions of the national agency

The national agency's primary purpose is to enable the Director to meet their functions and duties, and exercise their powers (see above). The outcome sought is effective risk reduction, readiness, response and recovery from emergencies arising from all hazards and risks. Specific functions for the national agency arising from this review include:

- being responsible for providing national support and coordination in states of local emergency, and control in national emergencies
- taking an oversight role through developing, monitoring and evaluating the all hazards-all risks National CDEM Strategy and Plan, and addressing matters of national interest relevant to Groups and other agencies[3], and
- assuring system capability and performance through setting standards and monitoring whether those standards are being met.

Within that, a number of judgements are required:

- **Policy vs operations**: We see the national agency primarily as an operational agency. This includes operational policy (for example developing the National Strategy and National Plan). Strategic policy relating to emergency management across all relevant Acts should be considered as a part of wider national security policy, and accordingly responsibility transferred

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[3] For example, coordinated business continuity plans across Government agencies, coordinated requests on national capability or scarce resources in Group plans, ensuring attention to national priorities by Groups, and responding to common issues raised by Groups, their plans or other agencies.

to the national security policy directorate of DPMC. This is a change from the original decisions that established MCDEM in 1997. It reflects both the evident need for a greater *operational* focus at the national level to support effective emergency management, and the greater *strategic* focus required than was apparent at the time MCDEM was set up.

- **4R's vs readiness and response**: On balance we recommend retaining responsibility for all 4Rs (with an all hazards – all risks perspective) within the national agency. Arguably, reduction and recovery are primarily *consultative*: readiness and response are primarily *directive.* Managing these different styles within one organisation can be challenging. However, drawing the line between reduction and readiness for example, or between response and recovery, would be arbitrary, and all four aspects need to be seen as a whole to be effective.

- **Lead agency responsibilities:** Lead agency responsibilities need clarifying generally (see discussion in Chapter Six). Further to that, being the lead agency responsible for particular hazards or consequences does not sit well with the all hazards – all risks perspective that the national agency needs to take. We recommend that:

  - *MBIE is specified as lead agency with responsibility for central government advice on infrastructure failure* across the 4R's, recognising its relevant policy and regulatory roles and links to industry and sector coordinating entities (telcos, energy). There are also calls to be made in relation to responsibility for transport and water.

  - *Responsibility for assessing, monitoring, and alerting the hazard risk in relation to geological and meteorological risks (earthquake, tsunami, volcanic, landslide, flood, severe weather) is clarified and assigned to the agency with best information and capability to undertake it.* It is clear that the national agency would lead the *response* to national emergencies, and coordinate and support the response to local emergencies, caused by such events. That is on the basis that a state of emergency has been declared because of the consequences, not on the basis that it was caused by a natural disaster. Responsibility for assessing, monitoring, and alerting the hazard risk, advice on mitigating the risk, and so on, sits better with the agencies with specialist capability in those hazards (for example, MetService for severe weather, GNS Science for geological hazards). This would suggest for example that responsibility for tsunami warnings should be with GNS Science.

  - *MSD is specified as lead agency across 4R's with responsibility for coordinating welfare services and the subfunctions of registration and needs assessment*.

- **Audit and assurance vs regulatory compliance:** The national agency will need to play a strong role in setting, monitoring and reporting national standards. These standards would be given effect through regulation, which is provided for in current legislation. Some submissions called for a stronger focus on regulatory compliance to ensure duties are being met. We believe it is best to reinforce the accountability of Groups to their communities for performance against national standards, and to rely on local pressure to provide incentive for performance against those standards. Some submissions saw merit in establishing a new position of Inspector-General of Emergency Management (as in some Australian states) to audit and provide assurance over the emergency management system. We do not see the need for that at this stage. Instead we recommend using the current monitoring framework to full effect. This would see:
  - the national agency set standards by regulation
  - Groups self-evaluate performance against those standards
  - the national agency assess and publish Groups' compliance and performance against those standards

- the Office of the Auditor-General (OAG) to report on emergency management matters in its local government audits.

These recommendations all influence the structure and capability of the national agency.

New National Emergency Management Agency

We believe there is a strong case for a significant shift in culture, objectives, business strategy and operating model at the national level. The choice is either to shift MCDEM's focus and culture within the current organisational arrangements, or to take the opportunity to establish a new National Emergency Management Agency (NEMA) to replace MCDEM.

Restructuring on its own would do little to change focus and culture. However establishing a new agency would provide greater autonomy, transparency, and status for the emergency management role. It may also allow greater strategic focus for DPMC in respect of DPMC's other roles. And it would send a clear signal of change in direction and operating style.

The disadvantage of course would be the level of disruption and instability that any restructuring incurs - and the expense of rebranding.

On balance, we believe that establishing a new organisation is required.

Structure

There are a range of options for the structure of NEMA. Broadly, these are:

- a business unit within DPMC (as MCDEM is currently) or of another department
- a stand-alone department or departmental agency
- a stand-alone Crown entity, or
- a part of Fire and Emergency New Zealand (FENZ).

We do not see any compelling synergies that would warrant NEMA being a business unit of another department, and we do not recommend this option. In our view, there is a need to raise the profile of NEMA in line with the mission of leadership and culture described above.

We do not favour the Crown entity option. The Minister plays an important role constitutionally in emergencies. The Minister is the authority of last resort with powers that include declaring states of emergency and directing resources. This requires a strong relationship between the agency and the Minister.

Some submitters raised the idea of FENZ taking on a wider emergency management role – in effect becoming or subsuming NEMA. We do not support this. First, it would not allow for the close connection with the Minister that we believe is required - and second, it is not clear that FENZ would be the best place for NEMA to be the national agency in an all hazards-all risks and 4R's sense given FENZ's primary responsibilities.

On balance, we recommend NEMA is established as a departmental agency. This gives the benefit of status as a department -- with a Chief Executive accountable to a Minister – while taking account of its likely size as a fairly small and focussed organisation. It may lack the economies of scale enjoyed by larger departments.

Departmental agencies are hosted by larger departments with some connection to the mission of the agency. It makes sense for that to continue to be DPMC, given the connections to the wider national security system that DPMC also has responsibility for.

Resourcing

It will be important that NEMA has the resources and capability to credibly do the job expected of it. We expect that will require strengthening of the capability and capacity.

Resource needs are likely to include stronger operational capability (including use of legislative tools) and dedicated response staff to allow it to flex and adapt to all contingencies – with arrangements in place to cover not just medium-scale events, but also large-scale catastrophic events if needed. Secondment arrangements with other departments as well as 'on-call' arrangements could strengthen surge capacity.

System Stewardship

We are aware than many of the recommendations of this review are not new. They have been considered previously, in the context of other reviews of the system, of events, or of exercises. However, progress on actioning them appears to have been patchy or slow. On the face of it, that suggests there may be barriers to addressing these cross-cutting issues that require collective endeavour and commitment from a number of agencies. This situation is not unique to this area of the public service. The practical implementation of the recommendations of this review will therefore need effective mechanisms to progress these cross-cutting issues.

Related to that, there is a need for continued attention to ensure good stewardship of the emergency management system, so that Ministers, stakeholders, and the public can have confidence that the system will work as intended when needed, and be cost-effective. There has been a lot of effort in this area (as a part of the national security system) over recent years. The National Security System Handbook sets out the overall governance arrangements for the national security system. And as noted by the Auditor-General and others, there is much to be commended in the current arrangements.

Nonetheless, on the basis of the findings of this review, we believe there is a need to strengthen the accountability for stewardship of the emergency management system (particularly in respect of multi-agency issues) if we are to be confident that it will remain fit-for-purpose and fit-for-the-future.

The question of how to get better collaboration and collective impact across agencies is not unique to this sector. A range of approaches have been taken across the public service to break down 'silos', get better collective impact, and to strengthen incentives and accountability for stewardship. We recommend looking at the applicability of those models for this sector, and in particular:

- **Transparency**: require clear priorities and results, greater CE accountability for achieving those results, and transparency of performance against those results. This is the thinking behind the *Better Public Services* framework for example. In this area, we cannot rely on evidence of outcomes to drive performance and stewardship – it would be too late then. There is room for more clarity about key hazards and risks, and transparency in assessment of how they are being managed. The work of the National Risks Unit in DPMC may be helpful in this regard.

- **Governance**: require joint strategic planning and coordinated implementation across key agencies, backed by a Ministerial group to drive demand. This is the approach taken in other sector groups – in natural resources, social services, and economic agencies for example. This could involve the National Security Committee playing a stronger role in governing work programmes.

- **Setting up a cross-cutting agency**: establish a cross-cutting agency to better integrate work areas, and to disrupt departmental silos. This is the approach taken in the Social Investment Agency for example.

We think there is merit in all these approaches, and recommend that they be developed further to support collective action and system stewardship in this area.

Further, we note that to be effective, all these approaches require stronger incentives and accountability for collective action – perhaps through joint accountabilities in departmental CE's performance agreements, backed up in Ministerial letters of expectation.

Recommendations

We recommend that you:

1.0 Agree to establish a new National Emergency Management Agency (NEMA) as a departmental agency hosted by DPMC, to replace MCDEM.

2.0 Agree that the core function of NEMA is to enable the Director CDEM to meet their functions and duties and exercise their powers under relevant emergency management legislation, including:
  2.1 As the national authority for support and coordination in states of local emergency, and control in national emergencies.
  2.2 Taking an oversight role through developing, monitoring and evaluating the all hazards-all risks national CDEM Strategy and Plan, and addressing matters of national interest in Groups' and other agencies' plans and activities.
  2.3 Assuring system capability and performance through setting standards and monitoring that those standards are being met.

3.0 Note that this will require more proactive leadership of the sector, and an assertive, and when required, directive stance, as envisaged in the provisions of the CDEM Act.

4.0 Retain the 4R's all hazards—all risks perspective within NEMA, with a focus on operational responsibilities, and consider shifting strategic policy advice responsibilities to a separate part of DPMC.

5.0 Agree that the NEMA's monitoring responsibilities, and OAG audit responsibilities, will be used to full effect through publication of results.

6.0 Agree that lead agency responsibilities are allocated to appropriate agencies, and that:
  6.1 MBIE is specified as lead agency with responsibility for infrastructure failure. There are also calls to be made in relation to responsibility for transport and water.
  6.2 Responsibility for assessing, monitoring, and alerting the hazard risk in relation to geological and meteorological risks (earthquake, tsunami, flood, other weather) is clarified.
  6.3 MSD is specified as lead agency with responsibility for welfare aspects of response.

7.0 Ensure that NEMA has the resources and the capability to credibly do the job expected of it.

8.0 Strengthen incentives and accountability for system stewardship, through:
  8.1 Developing transparency, governance, and structural approaches to strengthen collective action and stewardship in this sector, and
  8.2 Considering joint accountabilities in departmental CE's performance agreements, backed up in Ministerial letters of expectation.

Chapter Two: Regional Structure

Introduction

This chapter considers the structures and arrangements that are overseen by local government.

A core component of the CDEM Act 2002 is the establishment of CDEM Groups. A Group is a consortium of the local authorities in a region, working in partnership with emergency services, to undertake CDEM functions within their Group area.

There are 16 Groups in New Zealand, generally following regional and unitary council boundaries.

A region wide Group approach is explicitly required by the CDEM Act. Groups must prepare a Group Plan that identifies the hazards and risks in the area, and how they propose to manage those hazards and risks. The smallest area over which CDEM activities would be planned and implemented was assumed to be the geographic area of a regional or unitary council, with the provision for neighbouring Groups to operate collectively. We have heard that 'what you do before an event is critical'.

In non-unitary council regions, Groups have discretion in regard to the split of functions between the regional council and territorial authorities, the contribution respective councils make, and any business structures to assist collaboration. The Act is permissive rather than prescriptive on those arrangements.

The question asked by this chapter is whether current arrangements are fit for future needs.

The important principles are:

- the well-being of local communities should be in the forefront of Group decision-making

- continuous and sustained improvement in performance across the Groups should be integral to Group planning

- resources should be used efficiently, with incentives for performance and accountability to communities

- the current Act's intent and purpose should be reaffirmed, with the Act's particular requirement that Group members collaborate

- strong and necessary links to territorial authority functions should be retained

- be adaptable and nimble and take account of resourcing pressures on differently sized councils

- minimum standards should incentivise and support collaboration and cooperation, including the establishment and deployment of fly-in teams.

What we found

Since the CDEM Act came into effect, the different Groups in New Zealand have taken different approaches.

This has allowed a measure of innovation and flexibility. Some Groups have initiated, and successfully run, a shared services approach (for example in Otago and in Nelson/Tasman). Other Groups have discrete examples of good practice - e.g Bay of Plenty's involvement of iwi and Canterbury's proposal for an intra-regional surge capacity.

At the same time however, the wide variation in approaches has impacted on the effectiveness of emergency management, and the confidence that can be had in the system overall.

There is little consistency in operating practice, systems, terminology, roles or responsibilities across Groups. That makes interoperability and cooperation harder. Group Plans are often not clear about roles and responsibilities for Group members and others during emergencies, and certainty about who does what during response is mixed. We heard many submitters call for greater consistency in operating practice across Groups, and clarity about the respective roles for territorial and regional councils.

Approaches are **not always collaborative.** In some areas territorial councils do not buy-in to the joint planning and implementation activities. This outcome is at odds with the existing and clear purpose of the present statute that local authorities will coordinate, through regional groups, planning, programmes and activities related to civil defence emergency management (section 3(d)). The shortcoming in the statute is not that it is not clear about what is required but it lacks positive incentives for compliance and sanctions for non-compliance. This has perhaps given rise to a perception in some quarters that compliance with the purpose of the statute is voluntary. In our view the purpose of the statute is clear. Adherence, through a variety of mechanisms, needs to be incentivised and required.

There is confusion about whether the current arrangements are based on **two or three tiers** of governance and coordination. There was a common perception from submissions and discussion that the CDEM structure was primarily in three parts, and that that was too many. Some submitters noted for example that "recent emergencies…demonstrated that the local, regional, national structure does not work" and that the "the current 3-tier system does give good span of control, however there are too many weak links." The common references in submissions to three tiers reflects the *act locally, coordinate regionally, and support nationally* tagline that has developed. This is not in the Act. The Act has a two tier system: regionally coordinated Groups and a national level Director.

Capability of Groups is very mixed. The CDEM National Capability Assessment Report 2015 shows that 13 years after the Act came into force, only half of the Groups reached the target set by MCDEM for adequate capability across the 4R's. Group Plans rarely acknowledge the number of small district councils that will struggle to resource an emergency response of any scale.

Our conclusion is that, while there is merit in Groups taking account of local circumstances and context, overall these variations affect the ability of Groups to respond effectively and meet their community expectations. We believe a return to the intent of the Act is required.

Options and evaluation

To that end, we consider that there is a clear need to require Groups to:

- adhere to the statute's present requirements and take a regional approach
- be subject to stronger national standards on minimum requirements (such as capability and operating practice)
- provide adequate funding and resourcing to ensure a minimum standard of performance capability is acquired, and
- be subject to stronger governance and accountability expectations of their performance.

We considered a range of options for achieving that.

1. **Strengthened Status Quo** – no change to the functions and requirements set out in the current CDEM Act, but bolster implementation with stronger national standards (through NEMA), and stronger accountability for resourcing, capability, and performance (through NEMA monitoring and OAG audit).

2. **Mandatory Group framework -** retain the Group joint committee governance arrangements but require more consistent approaches across Groups (in roles and responsibilities, operating practice, for example) and a more formalised shared service arrangements, resourced and administered by the regional council. Like option one, this option can be supported with national performance standards and increased monitoring.

3. **Specify CDEM as a solely regional council function** – this envisages a structure where CDEM activities are a business unit of regional council. Territorial authorities would have to be subject to regional council direction and any delegations.

4. Set up **a separate entity, akin to a council controlled organisation,** with a Board. This would provide separation from the local government structure. It would enable formalised shared service to territorial authorities and the regional council.

5. One **organisation across New Zealand -** so all the key coordination functions, and employment of Group Controllers are run centrally. This option came up in a number of forums, although in different forms.

Option 1 would allow Groups to determine the 'how' – that is, what arrangements work best for their circumstances to meet the required regional approach and national standards. The joint committee of elected members would be collectively accountable for meeting those requirements and for the performance of the Group.

Option 2 would specify the 'how' – that is, it sets standard arrangements that Groups are to put in place. That allows for greater consistency and confidence that the arrangements will work, but may raise questions about their appropriateness to all Groups' circumstances. The regional council would be directly accountable for the performance of the Group.

There were a range of views on this. On balance the majority favour option 2. This approach would allow for a stronger regional focus, greater consistency in practice across Groups, better assurance about capability, clearer roles and responsibilities in emergency response, and clearer accountability for performance. Notwithstanding the advantages of option one in allowing arrangements to be tailored to local circumstances, the majority's belief is that even with stronger standards and accountability, nothing will improve, or it will improve at too slow a pace, if we continue with current roles and structure.

The minority view (held by the LGNZ representative on TAG) is that option 1 (which at various levels might encompass in practice aspects of options 2, 3 and 4) is preferable and less prescriptive in nature. With the right incentives, improved sanctions for non-compliance, and a requirement for revenue adequacy to meet set minimum standards of performance, a fit for purpose outcome consistent with the present purpose of the statute is attainable. It leaves sufficient flexibility to cater for differences in approach between regions.

Options 3, 4 and 5 are substantially different from the status quo, and would all come with substantive cost. In particular, the option of a single organisation (option 5) does not utilise, and build on, the principle that local communities are best served by people who know them and their local issues. The level of commitment we have seen from many councils and individuals to more collaborative approaches does not warrant such a substantial change to the local level arrangements.

On a technical note, we recognise that the Chatham Islands Council, and the special status of White Island, require specific consideration and further work. For the Chatham Islands, the principle of collective support during an emergency still applies. But it is physically very isolated, and has its own Act acknowledging its size and unusual circumstances. For White Island, we note that it currently falls outside any territorial authority, and so has no mayor.

Recommendations

We recommend that you:

1.0   Require Groups to take a regional approach consistent with the intent of the CDEM Act

2.0   Require Groups to provide adequate funding and resourcing for effective CDEM activities

3.0   Strengthen national standards over minimum requirements (for example, capability, operating practice as outlined in Chapter One)

4.0   Strengthen Group (joint committee) governance (for example, requirements on members to participate, limits on ability to delegate), and

5.0   Strengthen accountability for Group performance (through NEMA monitoring and OAG audit, as outlined in Chapter One)

The majority recommend that you:

6.0   Require the development of shared emergency management services across the CDEM regions, covering:
   6.1   The regional or unitary council responsible for resourcing and administration.
   6.2   Consistent Emergency Management Office structures, with EOCs across the Group area.
   6.3   Regional appointment and oversight of all Controllers, with clear line management and an emphasis on appointments embedded within territorial authorities.
   6.4   Defined functions and responsibilities for respective territorial and regional councils.

Chapter Three: Declarations

Introduction

Declaring an event, or potential event, a 'state of emergency' is a key part of the emergency management system. A state of emergency, over a defined area, triggers the ability to use extraordinary powers and access resources. The appointed Controller has control authority.

This chapter discusses who declares a state of emergency (local and/or national), factors affecting their decision to declare (or not), geographic scope and the public's expectations around information.

What we found

Although the Act emphasises taking a Group area wide approach to declaring states of emergency, the default practice is that mayors use the option of declaring over their districts.

There are mixed motivations to 'declare'. The most common reasons are access to resources and need to access the power to evacuate.

Other reasons included to signal to the public that the event needs to be taken seriously, and to give the public confidence that the event is being responded to appropriately.

Reasons for not declaring included concern that it would signal a failure – for example a lack of readiness or poor preparation; no evidence that the emergency services cannot cope; or no need to access powers.

> *The Mayor of Whanganui declared a state of local emergency on 4 April 2017, in anticipation of a flood event based on the weather forecast. Although the predicted flood level did not eventuate, the voluntary evacuations and media coverage during daylight mean the community felt prepared. The mayor and council received no public negative reaction to what they refer to as "the dry run".*

We heard that mayors have been asked to make a decision to declare, or not, when they lack experience and training. This can result in confusion, mistakes and delays.

There is inconsistent practice across New Zealand. Different factors are prioritised in different cases. Occasionally there is strong media and public debate about what should have happened. Following extensive coverage and increased discussion about civil defence emergencies in 2017 we note a visible shift in the bias – towards declaring states of emergency.

There was some support in submissions, particularly from Groups, for provision of an interim mechanism - a 'major incident' declaration - that would signal event significance and importance to the public, but not trigger extraordinary powers. For some this recommendation was expressed as a desire for clarity between activation of an emergency operation centre and a declaration.

It is not uncommon for a state of local emergency to be initially declared by mayors over their districts, and then within hours or a day a state of local emergency being declared for the whole, or greater parts of, the region. This latter 'Group declaration' is declared by the relevant person appointed by the Joint Committee – sometimes without consulting or even advising the mayors affected.

Options and evaluation

We considered three options around who should make declarations of states of emergency.

Option 1: Mayors have primary authority to declare for their districts (change of onus from the current Act, and recognises current practice). Deciding to affect residents requires a value judgement that only elected representatives can legitimately make. Locally this will be mayors or a delegated councillor. The downside of this option is that sometimes it is very clear that a much wider area needs to be covered by a declaration (where a multi-district or Group wide declaration makes pragmatic sense).

Option 2. Status Quo - a chosen elected representative or the Mayor: this option still has an elected representative making the decision.

Option 3. Officials, rather than elected members, have the authority to declare: this is on the basis that the decision to declare is a technical one – the use of powers requires a professional judgement. We are aware that this option, particularly the power of the Director to declare a state of emergency, was specifically removed from the CDEM Act 2002 during the Committee stage.

We recommend option 1, which emphasises the current usual practice of mayors declaring. We continue to be of the view that elected members, when trained and receiving sound advice, are best placed to front any decision to declare, rather than officials. This option also needs to provide for a single declaration that covers more than one district. We do not recommend changing the current powers of the Minister of Civil Defence to declare in certain circumstances.

Factors affecting the decision and scope

We considered how best to address a reluctance to declare, when declaring would have boosted awareness of an event, good community and personal decision making, and public confidence in those with authority.

A state of emergency area should be limited to the physical location affected (unless requisitioning powers are required over wider areas). It is appropriate for an area as small as a ward (such as Matata) to be under a state of emergency while the rest of the district remains outside of that declared 'state'.

We support the view that **guidance to declare a state of emergency should formally include 'public confidence' as a factor to consider.** On its own, maintaining public confidence may not be a strong reason to access the extraordinary powers triggered by a state of emergency but it should be a factor. The option of declaring a major incident (see below) may also meet this need.

Major incident

We see merit in **provision to declare a 'major incident' as an alternative to a state of emergency**. Declaring a major incident would likely result in activation of an emergency operation centre, increased social media profile, liaison and coordination with emergency services and use of powers available to councils, Fire and Emergency NZ, the Police, and others, under other Acts. Any need to access CDEM powers could be reconsidered as required. This option formalises what already occurs. An 'activation' is a common initial response of councils and emergency services to events, either followed by a stand-down or a formal emergency declaration. As with the current declarations, it should be a mayoral decision and announcement.

Recommendations

We recommend that you:

1.0 Clarify that elected representatives (the mayors) have primary authority to declare states of local emergency for their respective districts.
  1.1 Revise section 25 of the Act to give mayors the primary role.
  1.2 While mayors have primary authority, provide for the Chair of the Joint Committee to be able to declare in appropriate circumstances (consulting with affected mayors where practicable) as a multi-district or Group wide declaration may be most appropriate.

2.0 Require training and advice as a precondition for any person (primarily the mayors) using their authority to declare a state of local emergency.
  2.1 If a mayor is not trained then another trained representative of the elected members of the Joint Committee (the Group) will need to declare.

3.0 Retain the ability for the Minister of Civil Defence to declare any state of emergency (local or national). No change to the current Act is proposed.

4.0 Amend guidance to include 'public confidence' as a factor to consider in deciding to declare a state of emergency.

5.0 Provide the option of the mayor declaring a 'major incident'.
  5.1 Under a major incident the legislative powers available are limited to those that the councils and emergency services (such as Police) can use under other Acts[4].

What might Recommendation 5 look like?

Scenario 1: Whanganui potential floods April 2017 - would achieve helpful media profile, and coordination across emergency services. CDEM powers weren't needed (message was get prepared to evacuate). Although forecasts supported a precautionary approach, the 'emergency' never eventuated. If the flood had occurred everything was in place to upgrade to a declaration and start evacuations using powers.

Scenario 2: Hawke's Bay gastro outbreak - there was neither a CDEM state of emergency nor a drinking water emergency declared (under the Health Act). CDEM powers were not required. But the council as owner of the infrastructure was a key player, along with the DHB. An announcement of 'major incident' might have raised the profile and assisted dissemination of information.

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[4] Examples include: utility preventative works under section 330 of the Resource Management Act 2002, evacuations under the Fire and Emergency NZ Act 2017 and road closures for repair under the Local Government Act 1974.

Chapter Four: Role of Iwi

Introduction

While the review terms of reference does not specifically refer to iwi, we became aware of the role iwi had played in recent emergencies when considering matters related to Outcome 1 and Outcome 2 in the terms of reference. We also had a significant number of submissions that highlighted the capacity and capability of iwi to support those impacted by disasters.

Iwi response to disasters and emergencies, like that of others involved, is swift and driven by local needs. There is commonly early activation of marae, Māori wardens and other Māori whanau, hapū, and iwi networks to the fullest extent possible, in the context of the emergency.

Iwi's first call is to support whanau/hapū.

Iwi are also a huge source of social capital with significant resources to activate in response: such as welfare – shelter and food, communication networks and access to key supplies.

However, iwi participation in emergency management is not included in current legislation and the relationship is not always well managed at Group or national level.

What we found

The settlement of historic claims under the Treaty of Waitangi has resulted in significant growth of iwi business, social development and general organisational strengthening across New Zealand.

Some councils and their staff have not kept up to date with developments in this area and are not engaging with local Rūnanga appropriately – this is especially noticeable in iwi being 'consulted' far too late in planning stages.

Marae are commonly well resourced to assist in emergencies. The philosophy of manaakitanga and looking after the visitors first prevails, and the focus is the whole community. This capability is reflected in National CDEM Plan clause 73(5)(g)(i). In some recent events (14 November earthquake and flooding in Whanganui) local iwi initiated resources and communication networks, but there was no formalised structure for their involvement.

We received many submissions from iwi and others regarding iwi who responded rapidly to community needs but were excluded from operations discussions or included so late that they felt insulted. Iwi expect to be involved because they know the locality and people in it.

In some recent emergencies iwi were not consulted during the local planning or response phases even though 80% of the affected population identified as Māori. Funding for reimbursement of costs incurred by Marae and/or other iwi resources was either not clear, or was regarded by iwi as bureaucratic and complex.

One exception was the relationship being developed in Whanganui where iwi participated from the outset in April 2017 for the first time. There may be others.

Evaluation

Iwi alone carry the mandate to determine the nature and extent of the role they may wish to play in emergency management. We support and encourage a nationally led approach to develop and enhance the relationship between CDEM agencies (nationally and locally) and iwi. We also encourage a nationally led initiative to support the development of locally led protocols for iwi participation in emergency management.[5] It is important that all Groups and responders work appropriately with iwi.

While Te Puni Kōkiri (TPK) has a role in the region and can assist with engaging iwi organisations, this does not mean that TPK is able to represent the regional iwi. There is greater value in agencies with a role in response working to develop relationships with key iwi organisations in advance, as an integral part of emergency management planning and preparation. Iwi representatives commented that they wished to be viewed as a partner of value, engaged with at the outset, rather than just another entity to consult with when plans were developed.

Evidence from submissions and our meetings with iwi created a compelling case for iwi to be represented at all levels of the Group structure. However iwi were quick to point out that there are varying levels of capacity to engage. Participation needs to start with a conversation. In many regions there are a number of iwi in a region. In most cases iwi have good relations and regularly work together to ensure they are able to resource participation.

The recent engagement model developed to enable participation under the Resource Management Act was identified by iwi as one that Groups could look to. This is an approach that could also work for enabling iwi to determine how they wish to participate in emergency response and across the 4R's.

Mana Whakahono-a-Rohe

There is a participation model that has been written into the Resource Management Act (RMA) legislation that may provide a model for engagement on emergency management. Mana Whakahono-a-Rohe are mechanisms for iwi participation in local government decisions. They are written agreements between local government and iwi authorities to record how iwi authorities will participate in the preparation, change or review of a policy statement or plan.

These agreements are not limited to one iwi authority and one council, there can be more than one party to each side of the agreement. The RMA provides several guiding principles for the participating authorities that wish to initiate a Mana Whakahono-a-Rohe.

Recommendations

We recommend that you:

1.0 Recognise the capability that iwi bring to emergency management.

2.0 Legislate to enable iwi to participate in planning for and responding to a natural disaster or other emergency, and to bring more clarity to their role:
2.1: Appropriate iwi representatives to be part of the Groups' Coordinating Executive Group (CEG).
2.2: Appropriate iwi representatives to be included on the Group Joint Committee.

3.0 Look to the recent **Mana Whakahono-a-Rohe** amendments to the RMA as a model for a future CDEM Act amendment. Both the Local Government Act and recent amendments to the RMA provide examples of legislative changes sought.

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[5] Toi Moana – Bay of Plenty Regional Council submission

Chapter Five: Capability and capacity

Introduction

People and organisations involved in emergencies need to have the appropriate experience and competence to manage public safety effectively and efficiently. Capability relates to the degree of competency and skills, knowledge and attributes. Capacity refers to the quantity of a resource – in this case having the appropriate number of capable people. Both are important.

Under the CDEM Act, Groups are required to ensure suitably 'trained and competent' personnel are available for effective emergency management in their area (section 17). The Group Controller is also required to be suitably qualified and experienced (section 26).

CDEM capability is currently assessed in a number of ways.

- Through reviews of emergency responses and exercises.
- The national capability assessment of individual Groups by MCDEM (2012 and 2015 carried out to date).
- Three-yearly progress reports to Cabinet on the National CDEM Strategy.
- Five-yearly reviews of the National CDEM Plan.
- MCDEM is subject to a number of government auditing and monitoring processes.

What we found

There is no clear definition of what 'trained' means when referring to the capability of Controllers or other roles in the CDEM framework. The term is used often but may mean a range of things – complete or incomplete, up-to-date or undertaken many years ago.

Group and council capability and 'fly-in' resource

The national capability assessment reports[6] demonstrated that, after 13 years, Group capability was not up to the mark in the majority of Groups - only half of the 16 Groups achieved the MCDEM target for performance across the 4R's in 2015. Existing approaches to 'encouraging' appropriate Group capability are not succeeding.

Small councils have little capacity on their own for anything but minor and common events (localised fire, floods for example). The evidence demonstrates that most will rely on regional/Group resources. The major metropolitan councils are better able to cope, but even there, there is a significant range of capability. And as the Canterbury earthquake sequence showed, all councils will require significant assistance once an emergency reaches a certain size or lasts longer than 3-5 days. In most emergencies the ability of Groups to cover the Controller(s), PIM and other key roles will quickly reach capacity. Local responders may also be personally affected by the emergency, and as a result, find it hard to carry out their responsibilities.

Accessing capacity from other Groups generally relies on the relationships established prior the event by emergency managers. Even then, accessing resources can be very slow in a rapidly evolving situation.

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[6] CDEM National Capability Assessment Report December 2015

Recent practice has been to fly in staff from local and central government to support local response (for instance, Kaikoura, Hurunui, and Marlborough following the Kaikoura earthquake and tsunami; Havelock North for the drinking-water emergency; Whakatane after cyclones Cook and Debbie). These staff have not, however, been ready to go on an hour's notice, so deployment has taken a day or two.

The Review of the CDEM Response to the 22 February Christchurch Earthquake recommended developing a 'cadre' of response professionals who could be deployed as required. Our findings indicate that this 'fly-in team' is a much needed resource that would provide assurance - to the public and to the government. Many of the submissions we received supported the concept.

Controllers

The Controller has significant statutory powers and protection from liabilities. However there is no accreditation or certification required for Controllers. A recent survey of Controllers found that less than a third of Controllers had any training before they took up a Controller role.[7] The appointment process for Controllers is ad hoc and there are some people in this role who do not have the skills and knowledge needed for the role.

> There are currently around 230 Controllers and 31 of these are permanent full-time Group staff. Approximately half of all those who identify as Controllers are trained. There is no formal process for ensuring that all Controllers maintain and update their skills.

There are two courses for Controllers. One funded and endorsed through MCDEM and delivered in partnership by Massey University and Auckland University of Technology (AUT). The other was recently established at Auckland University. Auckland Council Controllers attend the Auckland course.

Of the 78 participants from the 2014 and 2015 cohorts at Massey University, 42 have completed the course (54%). There is a small expected dropout rate. Of the more than 150 people who have enrolled in this course 51 have completed the third phase – some, of course, have not yet had sufficient time to complete this section.[8] The course was due to come up for re-tender in June 2017, but was delayed for a year because of this review.

> **Example of relevant capability development: Maritime NZ's On-Scene Commanders**
>
> The Maritime On-Scene Commander training was identified as a good example of training for response by a number of people interviewed in the course of this review. National On-Scene Commanders are appointed by the Director of Maritime New Zealand and the Regional On-Scene Commanders are appointed by the Regional Councils. Regional Commanders train at the Marine Pollution Response Service (MPRS) assessment centre based at Te Atatu South in Auckland.
>
> People who undertake this role will have demonstrated competency in their background, and personal qualities. They may have completed other well regarded and relevant training and would have been involved in actual Maritime events or exercises. They will have a management or leadership background.
>
> Once training of National On-Scene Commanders has been completed the potential commanders are approved by the Director of Maritime New Zealand, who has the power to veto anyone he or she does not think is suitable for the role.

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[7] MCDEM Controller Development Survey Results Feb 2017

[8] MCDEM Controller Development Survey Results Feb 2017

Coordinated Incident Management System (CIMS) training

There is no complete training package to ensure competence in all of the CIMS functions. There are some NZQA unit standards for emergency management accessed through training institutions in various locations nationally but most of the unit standards are now out-of-date or expired. MCDEM is in the process of developing CIMS functions courses (there is a bridging unit to link the Unit Standards pathway into the CIMS function courses under development). Some courses are already available for Groups to access online but there is no ongoing 'train the trainers' programme. Submissions indicated that some Groups have difficulty finding appropriate trainers. MCDEM does not deliver training except to its own staff.

Emergency agencies

New Zealand's police, fire, and defence force all have significant training regimes in place. Some aspects of training that take place within these organisations are relevant for those undertaking roles in emergencies. It is also important that Controllers and government departments with emergency management responsibilities have a full appreciation of the role that these entities play during response. At present, often only ad hoc linkages are made between response agencies for training purposes.

Volunteers

Volunteers are important in the CDEM system, but the arrangements for deploying volunteers are unclear. The Health and Safety at Work Act 2015 puts responsibilities on those who assign tasks to volunteers that are similar to workplace responsibilities for employees.

There are around 17 volunteer New Zealand Response Teams (NZRTs) in New Zealand. Most of these are attached to Groups, although not all Groups have identified a requirement to have one or more NZRT. There is a range of competency within and between these NZRTs. The national committee led by MCDEM and NZ Fire Service (now Fire and Emergency NZ) that once addressed the light rescue function (one of a number of functions NZRTs may perform) is no longer in place. Accessing the allocated $1 Million of ACE[9] funding (intended to train volunteers) is bureaucratic and involves a Group linking their allocated funding places with one of four tertiary providers that TEC[10] has nominated for the training.

Spontaneous volunteers including spontaneous groups such as the 'student army' and 'Farmy Army' have increased since the 2010/2011 Canterbury earthquake sequence. Connecting the formal response structures with spontaneous individuals and groups is documented in CIMS (2nd edition) and the Volunteer Coordination Director's Guideline but has not been practically and consistently implemented. Some iwi welfare or other support groups have also identified themselves as volunteers. Where possible it is important that these spontaneous volunteer Groups, much respected and appreciated by impacted communities, are protected from personal risk by careful management and the assigning of appropriate tasks.

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[9] Adult Community Education
[10] Tertiary Education Commission

Evaluation

Professionalism in emergency management is patchy. The basic choice is to either:

- **Professionalise emergency management:** this would mean far greater attention to capability development (including training) and professional development, accreditation and certification for key positions (such as Controllers and other CIMS functions) and clear career paths. This would put it on a par with other emergency services, commensurate with the responsibilities and capability required for the role. It would however imply a major shift to operating models.

    or

- **Continue with best-endeavours approach:** this would see emergency management continue to be primarily as a local government activity undertaken by local government officers alongside their other work.

In our view the case is compelling for professionalisation. This would need to be supported with appropriate appointment, standards, training (through a single national capability development system), with an associated, recognised certification process.

Training

Controllers have significant powers attached to their position. They must be able to command the respect of their counterparts in Police, Fire and Emergency NZ, Ambulance, and Defence. Training for Controllers must have sufficient rigor and accreditation and include personal competencies. People undertaking this role need to perform well in high stress situations. Controllers commonly have an important but different role prior to events that require a mix of valuable skills and personal attributes. The Director must have the right to veto Controller appointments that she/he does not consider appropriate. Having two Controllers courses with different training content and approach is a problem when the outcome sought is consistent performance from trained and competent Controllers.

There are some genuine obstacles to achieving and maintaining competence across the wider CIMS functions. Upskilling any workforce requires time and practice. Emergency response and recovery is no different. Councils, emergency services, lifeline utilities, public agencies, and other organisations will need to agree to prioritise training and accreditation over other work (including day-to-day work), to ensure that an appropriate number of staff have the right qualifications. The current duplication of training in CIMS is confusing.

We understand that there is work underway on a case for updating and strengthening NZQA unit standards for CIMS training. This work may contribute to supporting the professionalisation that we recommend.

Clearly, there would need to be a managed transition to a professional emergency management workforce. Work would be required on priorities, cost effective options, staging and recognition of the different starting positions. During this transition it will be important to retain and support current capacity – both paid and volunteer.

Fly-in Teams

We support the concept of a fly-in team made up of individuals who could perform the roles of Controllers, as well as taking care of planning, logistics, intelligence and communications. The capabilities required and operating model need to be further worked through. Members would need to be carefully selected and trained. Deployment could be either on request of the Group Controller, or on the discretion of the Director.

The fly-in team proposal has been considered over several years, but has not been implemented. The matter of funding is still unresolved: there is a cost involved in establishing and maintaining the team, as well as the deployment costs.

The fly-in teams would encourage an *NZ Inc.* approach. The recommendation recognises that there is strong capability within the emergency management and government sector in New Zealand. There are existing highly regarded deployment models. [11]

Volunteers

Volunteers within the NZRTs should have training certificates relevant to a national standard, and a process for confirming or invalidating existing training certificates.

We consider that during an emergency response when deployed for the purposes of urban light rescue Fire and Emergency NZ should oversee those teams that are trained, equipped, and resourced to an agreed accredited level. This would not imply that those teams would fall under the umbrella of FENZ outside of response. A conversation between CEG chairs, FENZ and NEMA is needed to progress how future response team functions and relationships could work from an operational sense, including responsibilities of councils that choose to employ these teams directly.

In addition we understand that FENZ would encourage any members of these teams to consider joining their Volunteer Brigades (and meeting FENZ requirements for volunteers) if they wish to undertake a volunteer role in Fire and Emergency.

Australia's trained and accredited state volunteers

'The most important assets of the State and Territory Emergency Services are their volunteers.'

Western Australia has a robust system and network in place for training, developing and deploying volunteers. Some key aspects include a high level of standardised training, which is required to be maintained, and volunteers must be accredited. In turn they are issued with ID cards and uniforms. This system has resulted in a highly professional and experienced force – one which is greatly respected and valued by the community and other emergency services. They are considered to have a 'key role in countering the effects of natural and man-made emergencies'.

Recommendations

We recommend that you:

1.0 Strengthen the professionalism of emergency management, with a particular focus on Controllers.
  1.1. Require all Controllers (Group and National) to meet one mandatory national standard of technical and personal competency, prior to their being accredited as a CDEM Controller.
  1.2. Confirm that only accredited Controllers are permitted to act as Controllers during any declared state of emergency.
  1.3. Investigate the ability to leverage off Australian Emergency Management experience.
  1.4. Require the Director to personally confirm that a Group Controller meets the expected standard prior to formal accreditation.

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[11] The Ministry of Foreign Affairs (MFAT) deployment guidelines for emergencies in the Pacific provide an example that could be used to develop similar deployment guidelines for the Fly-in-Team. The MFAT deployment guidelines were referred to positively by senior staff in the emergency sector.

    1.5. Investigate a process by which the status of someone as an accredited Controller is reviewable.

    1.6. Develop national training and professional competency for all the relevant CIMS functions.

2.0 Establish 'Fly-in' Teams

    2.1. Have national teams of <u>professional CDEM Controllers</u> and other essential roles (such as CIMS functions, strategic communications, science) that can be immediately deployed (either on request of the Group Controller, or on the discretion of the Director)[12].

        2.1.1 Provide for professionals to be on the 'Fly in' roster from a variety of agencies.

        2.1.2 Recognise that some or all of national support roles are likely to be required with any state of emergency that is more than minor.

        2.1.3 Investigate where these priority roles can be sourced from (secondments are a possibility).

3.0 Ensure a consistent high standard of volunteer competence

    3.1 During an emergency response when deployed for the purposes of urban light rescue, shift oversight of trained and accredited NZRTs to FENZ as the agency with the most appropriate functional alignment with this volunteer capability.

    3.2 NEMA to work with WorkSafe New Zealand to get clarity on its accountability when Groups engage volunteers (and other employees) in response.

    3.3 For NZ Response Teams:

        3.3.1 Agree that during an emergency response when deployed for the purposes of urban light rescue FENZ have control of the teams if they are trained, equipped and resourced to an agreed accredited level.

        3.3.2 FENZ and NEMA to work with CEG chairs and NZRTs on how the teams can be recognised as being trained for responsibilities that they can appropriately assist with during emergencies.

    3.4 Identify how New Zealand can incorporate best practice from Australia's State and Territorial Emergency Services (SES) in recognising/training/accrediting volunteers, including assessment of volunteers' existing qualifications.

    3.5 Explore how best to protect volunteers from liability if they are 'in the system' i.e. NZRT, USAR.

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[12] Response will range from mentoring and support to full control depending on circumstances.

Chapter Six: Authority for Command, Control, and Coordination

Introduction

This chapter examines the structure in place for command, control and coordination in an emergency. We considered whether current legislative frameworks, including roles and decision-making powers, and related practices were fit for purpose, well managed, and efficient.

Having clear lines of authority, both across agencies and within structures is critical to having a well-managed and efficient response.

Command, control, and coordination have specific meanings in this context (also refer Appendix 2). There is an assumption that all roles are undertaken by competent persons – and this is covered in Chapter Five.

- Command (authority within an agency) is executed vertically, and includes the internal ownership, administrative responsibility, and detailed supervision of an agency's personnel, tasks, and resources. Command cannot normally be exercised outside an agency.

- Control (authority across agencies) is executed horizontally, and is the authority to direct tasks to another agency, and to coordinate that agency's actions so they are integrated with the wider response. Control authority is established in legislation or in an emergency plan. This is control to task a certain agency towards a certain outcome (achieve a managed evacuation for example). It is not control over the actual resource – personnel and vehicles.

- Coordination: bringing together agencies and resources to ensure unified, consistent, and effective response. Command and control assist with coordination by defining authority between and within agencies.

What we found

In many instances, protocols, relationships, and local knowledge about expertise assisted a good response. But we also found examples of confusion and frustration when formal authority was lacking and expectations of who would do what were not met.

Command authority

Command authority within supporting agencies (for example, emergency services, NZDF) are well established. We do not discuss them further here.

During declared states of local emergency the command structures within the CDEM system (between the national and local level, and within the local level) are limited and sometimes unclear. This is complicated by the wide range of Group structures.

The Director CDEM has no ability to direct the actions of a Group Controller unless a state of national emergency is declared. No Director, that we are aware of, has utilised their power to act on default of a Group or person[13] - for example, in the event of failure to appoint a 'suitably qualified and experienced' person as Group Controller (required under section 26 of the Act).

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[13] A power under section 75 of the CDEM Act to undertake an action where the Group has been negligent.

We found mixed understanding of the command powers of the Director. Some have assumed that whenever the NCMC was activated, by default the position of National Controller and/or the Director had increased authority. This is not the case. However, there are scenarios where it may be beneficial for the Director to have the ability to intervene – in particular, to ensure national interests are considered in local decision making, or to ensure that weight is given to national-level knowledge and intelligence.

Scenarios where local decision-making may not take account of national interest

- The Director CDEM, due to their access to intelligence from within the 'centre' is able to make an urgent decision when a delay might adversely affect a community (for example, deployment or evacuation).
- A matter has been escalated to the national level, for example due to complexity, multi-agency interest or media attention.
- Management of scarce national resources, when there are competing local needs (i.e. multiple states of local emergency).
- There is a matter of specific national interest that needs consideration during a primarily locally managed event (for example infrastructure of national interest).

Within the Group structure, command authority can also be unclear. Currently when a state of emergency is declared, the appointed Local Controllers have the same power as Group Controllers. It is not a delegated authority (although Local Controllers are subject to direction from the Group Controller during a state of emergency). As a result there are at times both Local and Group Controllers making decisions over the same matters. This can be confusing, inconsistent, and hamper effective responses.

We also found that the authority of a Group Controller during an emergency was not always well understood or respected. Within councils, Controllers may face a conflict of interest with senior council managers, Chief Executives or elected officials expecting to direct operations or decisions during a response.

Control authority

The Director/National Controller appears to have wide control authority in a state of national emergency under the CDEM Act. However, when there has been no such national declaration, and local government and emergency services are managing an event, the Director's powers are constrained. The Minister retains backstop powers of control. This has not been used to date.

Under the CDEM Act, Group Controllers do not have full control authority even when operating under states of emergency. This has been evident in some recent events, where Group Controllers have not had the clear authority to task other agencies. In many instances this has not been a problem. Activated emergency operation centres (EOCs) bring resources together (such as Police and Fire and Emergency NZ) and allows for coordination in response. However, in other instances, essential tasks were identified and it was not clear if <u>anyone</u> had either responsibility to do the task or the ability to task an agency. And we heard of examples where responsible agencies simply didn't turn up to the EOC even though an emergency had been declared. This has led to a perception that responding agencies can pick and choose what they do, despite agreement to tasking for these roles in planning documents. For example, tasking for a range of likely activities (such as logistics, and movement control) are described in the National Plan Order 2015. However, there is no certainty that the Plan will be followed, and there is no penalty for non-compliance during a state of local emergency. A

recurring example of unclear tasking was the management of cordons – the task of overseeing who accesses closed roads or areas and related safety issues.

Lead Agency

The term 'lead agency' is used in a range of documents, including the National CDEM Plan Order 2015, the National Security Handbook, CIMS 2nd Edition, and the Group Plans. The term's meaning changes with context and by document. It can mean variously:

- the agency with responsibility for managing a hazard across the 4Rs (including managing the response to an incident)
- the agency with the primary mandate to manage an emergency arising from that hazard
- the lead as directed by the Controller, or
- the functional lead for managing particular consequences (e.g. welfare, rescue, financial support).

Some documents emphasise continuity – providing horizon scanning and risk mitigation for a named hazard. Others emphasise the lead will change -- across the 4Rs and/or over time (for example as an incident becomes an emergency).

The control authority and powers that lead agencies have in their own legislation varies markedly. In some instances, the lead agency specified (in respect of various hazards) changes between the documents. For some hazards it is not clear that the most appropriate agency has been specified as the lead agency. For other hazards, there is no lead agency specified.

Unsurprisingly, this has led to a range of interpretations. The responsibilities and authority of a lead agency is unclear. This situation is confusing, occasionally contradictory, and in an emergency it is potentially risky.

Coordination

We found that use of CIMS is recommended, but not mandatory. It is not universally used. That raises coordination issues in response.

A key coordination forum is the CEG. Membership varies by Group. There are some statutorily required positions. However, important parties (such as ambulance services, and iwi) are often not part of the coordination structure.

We heard many submissions from particular community groups concerned to ensure that response arrangements would be effective in meeting their needs. There were representations covering rural perspectives, animal welfare (including pets and animal rescue), provision for children and young people, recognising interests of blind and other people with disabilities, and isolated communities. The concerns tended to have most connection to the welfare function under CIMS, in particular concerning the need for good awareness about the diverse needs of the community in emergency response. This also requires good intelligence and situational awareness, effective public information, and clear command and control authority.

Options and evaluation

The basic choices are around:

- **Status quo legislation** and rely primarily on coordination (between agencies, and across levels in the system) in states of emergency. This is on the basis that emergency response needs a great deal of judgement about priorities, specialism, flexibility and agility and that strict control is unlikely to allow for an effective response in practice.

    or

- **Strengthened legislative mandate** to ensure clearer command and control in emergency response. This is on the basis that clear control across agencies and command structures (particularly through the CDEM structures) is needed to ensure optimal use of resources and coordination of effort, and to avoid confusion that can impede effective response.

Overall, we consider that clearer command, control and coordination is required. The framework for this is already provided by the CDEM Act 2002. For some recommendations the strength of the mandate and the mechanism (for example whether primary legislation, regulation or guidance practice is appropriate) requires further work.

Command

We recommend a new power for the Director, providing for the national interest to be considered in responding to local emergencies. As this power would cut across local decision-making, we consider that it would need to have appropriate checks and balances. This would include, for example, clear parameters around its use. It would also need to be used transparently (for example, requiring reporting of its use to Parliament, or mandatory independent review of its use).

More generally, the enabling rather than directive nature of the Act creates a lot of variation in roles and responsibilities across Groups. Greater standardisation, including in operating practice and coordination structures, is needed to allow for interoperability between Groups. This includes, for example, the need to provide for the fly-in teams to operate effectively. As discussed in Chapters One and Two, the current Act allows for the Director to set standards. We recommend that these provisions be used to support appropriate minimum standards to allow greater coordination and interoperability across Groups.

We think that within the Group structure there should be a clear command authority below the Group Controller, with any 'local' or secondary Controllers to be under the clear command authority of the Group Controller in charge of an event (noting there will be roster changes). They should not have independent powers. We also think that Controllers who may be based within a territorial authority need to have responsibility to coordinate across the wider Group area, as well as a responsibility towards that territorial authority. This will be assisted by the recommendations in Chapter Two.

It must also be clear that during a declaration the authority of a Group Controller is understood and respected, including the relationship to the mayor, other members of the council, and the CE. The unequivocal authority of the Controller assumes that all Group Controllers are competent - appropriately trained and accredited (see Chapter Five).

Control authority and lead agencies

We recommend that when a state of emergency is declared under the CDEM Act, the Group Controller has clear control over the emergency response. This includes the ability to task other agencies. Further, we see a need for clearer and more binding default tasking, for example in National and Group

Plans. These Plans can set out tasking and resources available to support response, along with appropriate limitations. Prior to an emergency the key emergency agencies need to agree where, and when, they perform particular tasks. There are some obvious matters for which responsibilities and parameters can be pre-arranged.

> *Example of tasking in a Group Plan 'NZ Red Cross has agreed to manage spontaneous volunteers during the response phase as outlined in the Memorandum of Understanding between the Group and NZ Red Cross.' (Nelson Tasman CDEM Group Plan 2012)*

Our findings on lead agencies leads us to make two points:

First, we agree with the need to be clear about which agency has responsibility for advice and support on known hazards and risks, and for managing that hazard across the 4Rs (this may include managing the response to an incident caused by that hazard or advice on the change in risk). This is the intent in the National Security Handbook.

We recommend that the list of lead agencies is reviewed to ensure it is complete and appropriate, well-understood by those agencies and other parties involved, and given consistent expression in relevant plans. (Also refer to Chapter One for discussion on lead agency responsibilities for NEMA).

Second, we are of the view that there needs to be more clarity about which agency is in control during an emergency. If an incident has developed to the point where a state of emergency is declared under the CDEM legislation (in order to access resources or powers), then the CDEM (Group or National) Controller needs to have responsibility for overall management and control of the emergency response. This is irrespective of the hazard that caused the emergency. The 'lead agency' for the hazard will continue with responsibility to manage the specific incident (FENZ managing the fire, Police the criminal act) while the CDEM Controller will have control for the managing the consequences of emergency overall (for example, setting objectives and directing the overall response, identifying critical resources and prioritising effort).

Coordination

Although improvements can be made, CIMS is a valuable framework. We recommend that all those involved in managing emergencies commit to its use and collectively refining it so that it continues to be fit for purpose.[14]

We recommend extending the membership of CEGs to include all key entities required to coordinate an effective response. This would include ambulance as an emergency service. It would also include iwi (see separate recommendation in Chapter Four) as appropriate for the Group area. We would also emphasise the role of the Regional Emergency Management Advisors (currently with MCDEM) in supporting coordinated advice at the CEG level, and suggest that they are recognised as full members.

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[14] We note that the Port Hills fires Operational Review came to the conclusion that FENZ should adopt AIIMS (the Australasian Inter-service Incident Management System) rather than the New Zealand endorsed CIMS, on the basis that that would allow for better interoperability between NZ and Australian fire services. FENZ is yet to make a decision on this recommendation. The TAG recognises the benefit of AIIMS for FENZ operating in an individual agency environment. But, the focus for the TAG is the multi-agency environment and coordination across New Zealand agencies. Hence collective use of CIMS, updated as necessary, was considered more appropriate.

We also recommend reinforcing the expectation that representatives of agencies in the CEG will attend emergency operation centres (if at all practical) when they are activated, either in a declared CDEM state of emergency, or a developing event. Coordination needs liaison between agencies, and that requires participation. This includes services such as Police, FENZ, Ambulance, DHBs, and other parties such as iwi.

We do not make any specific recommendation in this report for representation of particular community interests on CEGs. We believe the increased professionalism (covered in Chapter Five) and stronger regional approach (Chapter Two) will help.

Recommendations

We recommend that you:

Command within the CDEM structure.

1.0 Enable the Director to direct Group Controller(s) during an emergency under the CDEM Act when there are matters of national interest
   1.1 Include appropriate checks and balances to this command authority:
       1.1.1 Setting out circumstances of national interest requiring intervention
       1.1.2 A requirement that any use of the authority is transparently reported.

2.0 Create generic authorisation of accredited Controller appointments
   2.1 Provide for qualified people to be brought in during events (fly-in teams – see Chapter Five) and be able to:
       2.1.1 Access the relevant CDEM Act powers of a Controller, and
       2.1.2 Enable them to act in the role of CDEM Controller anywhere in the country.

3.0 Require clear command authority at Group level.
   3.1 Require any 'local' or secondary Controllers to be under the clear command authority of the Group Controller in charge of an event (noting there will be roster changes). They do not have independent powers.

4.0 Confirm the authority of Group Controller
   4.1 Reinforce that there is no mandate for the Group Controller to be subject to direction by those that might have a different relationship to them outside a state of emergency.

Control across agencies during response

5.0 Require clear control authority for Group Controllers
   5.1 Ensure that when a state of emergency is declared under the CDEM Act the Group Controller has control over the emergency response. This includes being able to task other agencies.
       5.1.1 Develop and set out parameters of agency tasks – such as appropriate limits and preconditions – in the relevant Plans (National CDEM Plan Order for nationally managed hazards and Group CDEM Plans), and
       5.1.2 Develop effective mechanisms to bind and clarify responsibilities.

6.0 Assign default tasking to agencies

6.1 Require that relevant agencies specifically consider likely emergency response tasks and assign responsibilities, including:

6.1.1 The CIMS functions (for example, logistics, planning, intelligence) within operation centres.

6.1.2 Commonly experienced short-term tasks of manning cordons, rapid assessment and air traffic control.

6.1.3 Roles and responsibilities as part of the fly-in team discussed in Chapter Five.

7.0 Clarify and review lead agencies descriptions

7.1 Review the list of lead agencies so that it covers agencies with the primary mandate for overseeing a particular hazard or risk across the 4R's (including who manages the response to an incident) and ensure consistent expression through relevant documents.

7.2 Change references to lead agency to clarify that, when a state of emergency is declared under the CDEM Act:

7.2.1 A Controller (Group or National) has overall control to manage the emergency, and

7.2.2 The agency managing the hazard continues to have responsibility for managing the specific incident.

Coordination

8.0 Require use of CIMS (2nd edition)

8.1 NEMA to require all entities listed at the front of the CIMS 2nd Edition to commit to using it, and collectively updating it to add clarity and reflect NZ legislative roles and authority.

9.0 Extend membership to key entities required to coordinate an effective response

9.1 Extend CEG membership to include ambulance as emergency services and also iwi (see separate recommendation in Chapter Four) as appropriate for the area.

9.2 Emphasise the role of the Regional Emergency Management Advisors (currently with MCDEM) and recognise them as full members of the CEGs.

10.0 Representatives from agencies in the CEG to attend emergency operation centres

10.1 Emphasise the importance of the liaison role when there is a declared CDEM state of emergency:

10.1.1 For services such as Police, FENZ, Ambulance, iwi, DHBs, and

10.1.2 Ensure they are represented at the activated operation centre following a catastrophic event (such as a large earthquake) or when it is activated to respond to a developing event (such as a weather event).

Chapter Seven: Intelligence

Introduction

In the immediate aftermath of a disaster a range of critical needs emerge: food, water, shelter, and the need to locate family. In order to act effectively and efficiently involved entities need accurate information.

After a major disaster, all that was known about that community may no longer be true. Incoming information needs to be verified in order for it to be reliably acted upon. For large scale events essential intelligence is required from a range of sources including disparate IT systems and platforms.

CDEM intelligence capabilities in emergency struggle with the sheer speed and volume of information during an emergency response. Systems for situational awareness/intelligence sharing and dissemination need to be better coordinated and more agile. A Common Operating Picture provides a detailed, accurate and comprehensive view (single source of truth) of the unfolding situation that includes management of the hazard and dealing with the consequences.

What we found

Technology is advancing rapidly but the struggle to synthesize vital intelligence from many sources into one common operating picture is a challenge for most jurisdictions at present. Most find that the latest developments in this field are not fully mainstreamed into emergency operations technology applications. The constant updating and refining of improvements is another source of challenge.

All of the key response agencies gather essential information - yet current systems do not link easily to enable a full situational report. In recent emergencies the Group Controller has experienced frustrations when requesting information from other agencies. Very little has been forthcoming – there was no automated feed of information into the system.

Common Operating Picture and separate systems

New Zealand's intelligence infrastructure and hardware has not been sufficient to deliver an accurate and comprehensive common operating picture during recent large scale emergencies.

The agencies with situation awareness systems (fire, police, health, defence, for example) have invested considerable resources in their own online systems and it is likely that they will be reluctant to invest further resource in a shared system. None of these existing models would appear to be the multi-agency answer.

There is no current agreement between the core agencies on what information forms the common operating picture (e.g. lifelines information, where cordons are, isolated geographical areas, welfare needs) and how information from multiple sources can be drawn together to give a common picture.

There is some interest in the Victorian Emergency Management Common Operating Picture (EM-COP) which was originally developed by the USA's emergency management agency (FEMA). However, the concept will need to be demonstrated and socialised with agencies.

National Crisis Management Centre (NCMC aka the Bunker)

The Bunker is outmoded and no longer fit-for-purpose. Its physical layout alone inhibits working together with appropriate technology to achieve a common operating picture. It is difficult for staff to connect to their work IT systems. The Bunker also lacks sufficient GIS capability and other critical analytical capability to evaluate strategic information.

Most of the key response agencies' national coordination centres are significantly more technically advanced than the NCMC.

Unnecessarily restrictive security classifications prevent access to important situation information and decision making.

We understand that MCDEM has been tasked with scoping the feasibility of updating the Bunker so that it can continue to function moderately well in the short to medium term. This includes scoping the purpose and functionality required from the NCMC in the future. Work is also underway for an alternate NCMC in Auckland.

> The Crisis Coordination Centre (CCC) is the Australian Government's periscope into everything that is happening around the globe [and internally]. It is an all-hazards, 24/7 facility with representatives from a range of Australian Government departments, including the Bureau of Meteorology and Geoscience Australia. It provides the whole-of-government picture to decision makers during times of crisis, whether it is a natural disaster or a security incident. The CCC also coordinates physical Australian Government assistance during disasters and emergencies and manages the National Security Hotline—the single point of contact for the public to report suspicious activity.[15]

EMIS

MCDEM and Groups use the Emergency Management Information system (EMIS) - a software tool – when managing civil defence emergencies. It is a workflow system, aimed at managing requests, tasks and resources, logging information, and the collation and filing of developed datasets such as action plans and situation reports. It is not an all-of-government system. EMIS does not create a common operating picture. EMIS is currently being upgraded to a new platform.

Submissions indicated that EMIS is often confused with IT systems that provide a common operating picture. Several references were made to EMIS as unfit for carrying out IT functions that it was never designed to perform. This lack of clarity on its role has resulted in EMIS being considered unfit for purpose – however other feedback, from those who use it regularly in response situations, consider it to be an effective programme for recording resource demand and supply in an emergency.

24/7 monitoring, alerting, and warning of events

The current system of monitoring, alerting and warning has developed in an ad hoc way, over time, to meet individual agencies legislative and operational responsibilities.

There are a number of 24/7 'awake' centres across a range of agencies. New Zealand's Rescue Coordination Centre (RCCNZ operated by Maritime NZ) is one. NZ Transport Agency has another. New Zealand Defence also has staff awake during the night.

Both MCDEM and GNS Science have a duty roster of people to perform key roles who will be woken if an event occurs during the night. The MCDEM Duty Team consults with GNS Science (for geological

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[15]https://www.ag.gov.au/EmergencyManagement/Emergency-management-capability

related emergencies) and assesses information about the hazard risk, decides appropriate action (such as issuing warnings), issues the information via multiple channels and commences a response. By not having an awake duty team, delays with communication of warnings and establishing a response are inevitable.

There is some support for a centralised, staffed multi-agency, 24/7 operating centre in New Zealand, but the next stage requires a robust assessment of needs and costs to justify such an investment.

NZ's tsunami alert is behind international best practice. Currently Geo-Net provides earthquake information to a panel of experts convened by GNS Science. These experts then consult and agree on the risk of a tsunami and provide a stream of advice to MCDEM who then decides whether or not to issue a public warning. This process is shortened for local source tsunamis. In other countries (such as Japan, Sri Lanka and Singapore) tsunami forecasts are handled by integrating three different levels of information technology: trans-ocean modelling, coastal sea modelling and coastal flood modelling. At present in New Zealand these three system tiers operate virtually independently. This is unsatisfactory when emergency coordination is vital.

This situation may not be such a significant issue for slowly developing emergencies such as floods, cyclones and tsunamis that result from a distant earthquake such as in Chile. However it is a source of concern for tsunamis that result from seismic activity in the region near our shores, for example the Kermadec trench. In this scenario urgent response will be required from many Groups in order to avoid large scale loss of life.

Tsunami risk is a very real threat to safety of life in New Zealand. New Zealand has experienced about 10 tsunami of five metres or more since 1840. Recent tsunami research has presented a mixed picture. Parts of our coast are exposed to greater tsunami hazard than previously thought, while the hazard in other coastal regions is the same or less. Focusing on those that take less than three hours to reach here suggests that one may occur in New Zealand about every 40 to 50 years on average. So it is likely that at least one will occur in the lifetime of most New Zealanders.[16] The 2004 Boxing Day tsunami in the Indian Ocean reached heights of nine metres. A five metre tsunami would cause significant damage to a coastal community.

Science

The November 14 earthquakes revealed a number of pressure points for GNS Science post a significant natural disaster. There was a tendency for ministers and the media to seek information direct from GNS Science on seismic risk, rather than through established CDEM communication channels such as PIM.

Evaluation

The intelligence function needs the capacity and tools to do more than just receive, store and show data. It needs to be able to generate useful robust, accurate and verified information to guide response and recovery decisions.

The Bunker is falling behind best practice. Yet when an all-of-government response is called for, following the activation of the national security system, it is expected that this will be led out of the

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[16] GeoNet report cited on MCDEM website

NCMC. As a result of these shortcomings, we think it unlikely that any other lead agency would run an event from the Bunker. It needs further investment to continue functioning effectively.

We note that any solution towards enhancing the Bunker and/or a common operating picture will involve significant investment. Further, the creation of a common information management system – or a common operating picture – would likely require a Cabinet decision. There is obvious benefit in a common operating model for New Zealand being adopted. Some would also say an urgent need.

While DPMC as a central agency has indicated strong support for the creation of a common operating picture, we note the challenges set out above. We recommend giving priority to the work needed.

We think there is benefit in looking to use and integrate existing 24/7 capabilities to provide intelligence and assessment of developing or shock emergencies (with an all hazards and risks perspective). That may mean aligning processes and procedures across agencies to reduce duplication and improve coordination, drawing on the respective strengths and core business of those organisations. We also suggest investigating the benefit of using the new national emergency management facility as part of the 24/7 operation.

The Crown Research Institutes (CRIs) have a range of valuable capabilities (including resilient infrastructure and telecom capacity) with an interest in contributing more. We note that there are cost implications. We regard accessing science expertise as an essential element of effective response and recommend including science as appropriate into the 'fly-in' team.

United Kingdom embeds science advice into emergency response

The Scientific Advisory Group for Emergencies (SAGE) ensures that timely and coordinated scientific advice is available to inform disaster response decision making. SAGE includes experts from within government and leading specialists from the fields of academia and industry. The Group is chaired by the Government's Chief Scientific Adviser or a departmental Chief Scientific Adviser.

SAGE has developed methods for getting science advice to both national and regional levels of response. Sometimes this is an incident presence and on other occasions advice is accessed remotely.

The rationale for this emphasis on science advice is that effective emergency management and informed decision-making relies on leaders having access to the best available advice in a timely fashion. The guidance focuses on the coordination of scientific and technical advice to inform strategic UK cross-government decision making during the emergency response and recovery phases.

Recommendations

We recommend that Ministers:

1.0 Establish a new national emergency management facility (replacing the Bunker) with a fit-for–future physical layout and technological functionality

    1.1 Enable a national emergency to be controlled and managed from the new facility.

    1.2 Provide for all current CIMS functions, along with a common operating picture and strategic communications.

    1.3 For national resilience, provide for two facilities and/or easy transfer of base operations.

    1.4 Maintain effective technological links with other operating centres (Groups, Police, FENZ, Defence, Ministry of Health, and Transport for example).

    1.5 Systems to be adaptable so that all central government organisations can effectively operate out of the central facility if required.

2.0 Invest in the technology to ensure a fit-for-purpose Common Operating Picture

2.1 Investigate technology needed for a Common Operating Picture based on international best practice models as a strong contender for New Zealand's common operating model.

2.2 Expect all entities with emergency operations functions to collectively solve the challenge of cross agency systems to share intelligence, and situational assessment.

3.0 Establish an integrated 24/7 operation for the monitoring, alerting and warning of emergencies

3.1 Investigate the benefit of using the new national emergency management facility (see rec 1.0 above) as part of the 24/7 operation.

3.2 Utilise and integrate with existing 24/7 capabilities to provide intelligence and assessment of developing or shock emergencies (with an all hazards and risks approach).

3.3 Increase the speed by which alerts are provided and distributed, particularly in regard to simplifying or shortening current practice and providing timely and geographically accurate tsunami warnings.

4.0 Recognise the importance of science intelligence as part of situational awareness:

4.1 Develop an expert group based on the UK SAGE model.

4.2 Enable relevant science capability to be embedded as part of the fly-in team.

Chapter Eight: Information and Communication

Introduction

Maintaining public trust and confidence through effective communications is important. The time taken to access up-to-date information on the current emergency, and the way that information is gathered and disseminated were two issues at the forefront of the Minister's concerns at the outset of this review.

In New Zealand there is a principle that in an emergency people should prepare to look after themselves in their own home as long as they are able to. Public information helps people both prepare and know what to do in an emergency. And the public also needs up-to-date information during emergencies.

The Chapter covers the communication of emergencies, to the communities affected, the wider public and also to the spokespersons who the public look to for assurance and information.

The media environment has changed in the past five years. Twitter, Facebook and other forms of social media have become primary sources of information for the public. People are increasingly turning to these sources of information in an emergency. Traditional media sources have been impacted by this societal change and those that remain constantly need to find a fresh news angle in order to survive.

Preparing and sharing information about the response directly to the affected public (via social media and other channels) is the primary function of the information desk. Community liaison, media enquiries, information and warnings, and supporting response spokespeople are also part of the role description. At the Group level, the PIM role is commonly carried out by people from local authorities who have been assigned this function. They may have a communications role in their local council and they may have received some relevant training.

What we found

Recent events highlight a significant gap between what communications professionals are expected to deliver during an emergency or event, and the resources and capacity that is currently available through the PIM function. There are commonly too many points of liaison for a small communications team to handle effectively and efficiently. When a response involves multiple agencies there is inevitable complexity that requires an equivalent escalation in communications coverage.

Having a stream of information that has been officially been cleared and signed-off (commonly referred to as official information) cannot consistently meet the pace of media dialogue and social media activity. It is important to be clear where official comment will come from.

Public information and preparedness

We heard from Groups about the importance of public information before the event to build community resilience and support emergency preparedness. Having well prepared communities and households, with a good understanding of what to do in an emergency, was seen to help the effectiveness of the response.

Spokesperson

During recent emergencies it was clearly challenging to maintain public trust and confidence when social media was so rapid, random, and very difficult to control. A dimension of this is that suddenly a 'media star' will become the go-to person for the media. This person may not be the official spokesperson, nor have accurate information on which they base their comment and advice.

We are of the strong view that those who respond to media questions must be well briefed and supported by people who have considerable experience in this field. It is difficult for a Controller to coordinate an emergency response and also manage the media interface.

In the past where a Controller has tried to do both, it hasn't worked (for example initially in Christchurch in 2011). Although Mayors are commonly designated or self-appointed spokespeople, the minister, Director CDEM, local MPs, Group Controllers, emergency services, NGOs may all be asked for comment by many media outlets (including international). Keeping track across the multiple layers and access points for media commentary can be challenging. Any spokesperson needs advice on all the different media channels and what other people are saying to the media.

Mayors have an elected community leadership role and are commonly sought for comment during local emergencies. However the range of often detailed information that media may have questions about, due to their sweeping of social media, is vast. The spokesperson increasingly needs to recognise and value the support of a skilled media strategist as well as technical information from the Controller

Strategic communications

More pressure has been put on politicians and senior officials to be ready to defend and 'front-foot' the unfolding disaster. Managing the full onslaught of media attention across all channels has become a more complex task. We have found increasing recognition of, and respect for, strategic communications expertise to support spokes people.

Strategic communications support to Ministers to date has been ad hoc. It has involved casting around to see who is available among the core of recognised communications experts (known at central government level). Seven years of significant emergencies has demonstrated that the strategic communications role, when in place, has provided much needed advice to the Mayor (usually the spokesperson) the Minister and the Director. The role has been most effective when strategic communications support has been available both in central government, Wellington, and on the ground at the site of the emergency.

Public Information Management

We asked Controllers and local authorities, who had managed recent events, how the PIM role had worked. People in the PIM role are generally assigned by the collective Group or a territorial local authority. While there are some very capable people in the role in some areas, in some emergencies the people assigned to the PIM function may never have done this task before. PIM is further discussed in the capability chapter. Having an inexperienced person in the role has caused delays and frustrations in some recent responses.

Working with the media

In an emergency, the public will turn to channels they know and trust. We found that Radio continues to play a fundamental role in the early stages of recent emergencies. However for some in the community their preferred source of information is increasingly social media – a fact that needs to be

recognised in a communications strategy. Failure to do so will leave a void that others (for better or worse) will fill.

Some important media streams may have been forgotten (e.g. iwi radio). Access to information for Māori would be improved through better utilisation of Māori media including iwi radio, and social media networks of iwi, and of iwi and Māori providers.

Use of technology in communications

Some progress has been made in the use of new technologies to support alerts and warnings. MCDEM has been working on a cell broadcasting alert system that is due to 'go live' by the end of 2017. The alert system is a 'push' system. It enables messages to be sent to all cell phones in a geographical area. The cell broadcasting system will be used by Police, FENZ, MPI, Ministry of Health, MCDEM and Groups and the system will require ongoing resourcing and a dedicated 24/7 monitoring and warning centre to maximise its potential.

There is little commonality between IT systems of the various councils and, across government, organisations are slow to change practices that have not worked over repeated responses. The different communication needs at local, regional and national levels are not widely understood across the sector.

Evaluation

There are clearly good developments occurring in technology but also some need for improvement. The importance of well-resourced social media capacity for gathering intelligence and managing a response is high and growing. Social media advances have demonstrated the need to be pro-active and ensure public trust and confidence is maintained and people have the right information to assist them with their personal actions during an emergency. Active monitoring of social media can add to the intelligence to support the common operating picture (refer Chapter Seven).

PIM role

The PIM function needs to ensure timely, consistent, and proactive use of the range of appropriate channels (e.g. social media, online, radio, print, TV).

In particular, this needs to include capability for managing and utilising social media. There are a number of people with a high level of PIM training around New Zealand and their expertise should be recognised. We include their presence in the recommended 'fly-in' team discussed in Chapter Six.

Spokesperson

It is important to provide a good communicator as spokesperson. Logically we would expect this role be filled by whoever the impacted community elected to lead them. This fits with our recommendation on the role of the mayor as primary person to declare a state of emergency (see chapter 3). In a modern media context the spokesperson needs the support of a senior and experienced communications practitioner who can brief and counsel them.

Strategic communications

When deployed in recent large emergencies, the strategic communications specialist has complemented the PIM function. The strategic communications person will also advise when a range of other spokespeople are needed to complement the elected role. This may include scientists with expertise relevant to the specific type of hazard.

We consider that strategic communications support should be deployed immediately for all sudden onset emergencies such as earthquakes, and other disasters depending on scale. This role would complement the local PIM function. CIMS should recognise strategic communications expertise as an essential element of effective response.

The strategic communications capability already exists across government and within some private companies. The central government 'Head of Communications Group' is a natural location to support a database of people with capability and experience and the means of rapid deployment.

Recommendations

We recommend that you:

1.0 Confirm local Mayor as primary spokesperson
- 1.1 Provide the mayor with supported strategic communications advice
- 1.2 Require Group plans to identify arrangements for a regional spokesperson when managing an event that crosses territorial boundaries.

2.0 Recognise Strategic Communications as an essential element of effective response
- 2.1 Deploy strategic communications support immediately for all sudden onset emergencies such as earthquakes, and other disasters depending on scale.
- 2.2 Provide communications advice and support for the Minister(s), local MPs, Mayors and Chief Executives/Director.
- 2.3 Liaise with their counterparts in other agencies (such as Police, Fire, MFAT, and NZDF) to shape a comprehensive situation report for national and international media.
- 2.4 Work from both the NCMC and 'on the ground', to cover strategic communications needs.

3.0 Include and deploy trained and experienced PIMs and Strategic Comms in 'Fly In Team'
- 3.1 Allocate the task of maintaining the database of people with strategic communications, and other specialist communications capability, for deployment as part of the fly-in-team.
- 3.2 Resource capability for social media monitoring and use.

4.0 Ensure timely, consistent, and proactive use of the range of appropriate media channels both for communication, and for gathering intelligence.

Appendix 1: Terms of Reference

Purpose

This review will provide advice to the Minister of Civil Defence on the most appropriate operational and legislative mechanisms to support effective responses to natural disasters and other emergencies in New Zealand.

The purpose is to ensure that New Zealand's emergency response framework is world leading, and well placed to meet future challenges. In light of recent events it is appropriate to see how we can further enhance and strengthen the current system.

Context

A series of recent hazard events and emergencies in New Zealand have resulted in wide spread reflection on whether the current operational and legislative settings for responding to natural disasters and other emergencies are fit for purpose.

Responsibility for the management of these events lay with three different agencies[17]. The civil defence emergency management sector was however involved in all three responses as either lead or support agency. In all three cases the effectiveness of the civil defence emergency management sector was called into question resulting in a loss of stakeholder, public and Ministerial confidence in the response system.

The National Security System, of which civil defence emergency management is a part, has a range of lead agencies that operate under different legislative mandates, depending on the hazard type. The complexity of the system is well understood by those agencies that operate within its framework, but are not widely publicised or understood by the public[18].

Many lessons from the Canterbury earthquakes of 2010 and 2011 and other events have been successfully embedded into the operation of the current civil defence emergency management system. However there has been no significant review of the organisational structures, roles and decision-making powers, within which responses are orchestrated. It is timely to take a wide look at how the sum of those parts work together. In particular, to consider whether any changes to settings could optimise the civil defence emergency management system's performance in the response phase.

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[17] August 2016 Hawkes Bay gastroenteritis outbreak (lead agency Health); 2 September 2016 East Cape earthquake and tsunami (lead agency Civil Defence Emergency Management); 14 November 2016 Kaikoura earthquake and tsunami (lead agency Civil Defence Emergency Management); and 13 February 2017 Port Hills fire (lead agency Selwyn Rural Fire Authority).

[18] November 2016, Controller and Auditor General report Governance of the National Security System.

Project Definition

The problem   The purpose of the review is to ensure that New Zealand's emergency response framework is world leading, fit-for-purpose, and well placed to meet future challenges.

The current organisational structures, roles and decision-making powers in the civil defence emergency management response system need to align with the expectations for system performance.

Recent events tested New Zealand's response framework, and its effectiveness in supporting decision making, information sharing and operational capability. In particular it has been noted that:

- The underlying principle of "act locally, coordinate regionally, support nationally" may not be suitable in all circumstances.

- Decisions are not necessarily made by adequately skilled and experienced people, mandated at the appropriate level of government, and supported by the best information possible in the circumstances.

- Volunteers may not be adequately supported by a professional emergency management force.

- Information is not always readily available to decision makers on the scale, complexity and evolving nature of the emergency, to determine the capacity and capabilities required for the response effort.

- There is a need for timely, consistent and accurate communication to the public.

- Response capabilities are not necessarily deployed as promptly and seamlessly as possible, taking advantage of economies of scale and the experience of senior responders.

In summary, the operational and legislative settings within the system may not be performing optimally to meet current and future needs, and the role that New Zealanders need it to play.

Scope   The work will examine:

- The current devolved decision-making model from central to local government, and framework of lead and support agencies to manage response to emergencies arising from specific hazards.

- Decision making and chain of command, including:

  - who has the power to declare a State of Emergency, and

  - whether there is a need for an interim mechanism to manage a localised event with significant consequences or that could evolve into a state of local emergency or a state of national emergency.

- Response capability and capacity.

- Whether legislative changes are required to the Civil Defence Emergency Management Act 2002 (and other legislation related to emergency response).

Outcome 1: The emergency response system is fit for purpose and aligns with stakeholder expectations, taking account of the need to prioritise preventing death, injury, and property damage, and the fast-moving nature and uncertainty of emergencies.

Outcome 2: New Zealand has the appropriate response capability and capacity for civil defence emergency management responses.

- The system capacity supports the availability of appropriately skilled and responsive resourcing, regardless of the location and scale of the emergency.

- Appropriate protocols exist to enable supporting agencies to swing promptly into action.

- Agencies with specialist capabilities (such as logistics, aerial surveillance and interpretation) are knitted into the fabric of a response.

- Business continuity across the whole of government supports an effective response and prompt recovery.

Outcome 3: Clearer definition of who determines the need for and declares a state of emergency and at what point the Director Civil Defence Emergency Management can step in to declare a state of emergency.

- A single lead role across any geographical area affected by natural disaster

- The purpose and consequences of declarations of states of emergency are clear

- Appropriate interventions and escalations are available.

Outcome 4: The chain of command and control, coordination, and decision making during an emergency is effective and appropriate.

- There is a clear operating model and chain of command and control and coordination during response, including the recognition of lead and support agencies.

- The system enables decisions to be made quickly, by appropriately skilled and experienced people, mandated at the right level, within the most appropriate agency and incorporating the best available information.

- All participants in the system understand the operating picture and their respective roles and responsibilities, including how these might change over the course of the response or as the event unfolds.

Outcome 5: Information flows into, across, and out of the emergency response system effectively, allowing timely and accurate communication to Ministers; agencies; officials; stakeholders with particular interests; and to the public during emergencies.

- Recognition of the modern news cycle – immediacy of social media and power of factual decisive information delivered as speedily as possible

- Stakeholder needs are understood (what information is required; where and how to gather the information, providing it at the right time and in the right format).

- Official information maintains pace with media dialogue and social media activity.

The work will not examine the current legislative framework for hazard risk assessment and management set out in other legislation, for example the Resource Management Act 1991, but may make reference to any further work or consideration that may be necessary to better fit other Acts to enable resilience and preparedness.

Consultation and Engagement

The chair of the Technical Advisory Group is expected to agree with the Minister of Civil Defence the overall process, including matters of consultation and engagement. There is significant benefit in direct engagement with key stakeholders, as their contribution will add value to the Technical Advisory Group's advice. This should include providing for engagement with local government, emergency services, relevant government departments, and iwi and Māori. The means of consultation and engagement will need to reflect the time available and it is recognised that engagement will commonly be though the chair and the secretariat.

Key Deliverable

A review document examining the current operational and legislative settings for responding to emergencies and the recommended options for change.

The document will be provided to the Minister of Civil Defence no later than three months from the date of the agreement to these Terms of Reference.

Governance

Sponsor

Minister of Civil Defence

Technical Advisory Group

A Technical Advisory Group made up of:

- Roger Sowry, as Chair;

- Benesia Smith MNZM, independent consultant;

- Malcolm Alexander, Chief Executive, Local Government New Zealand;

- Assistant Commissioner Mike Rusbatch, New Zealand Police;

- Deputy National Commander Kerry Gregory, New Zealand Fire Service;

- Major General Tim Gall, New Zealand Defence Force;

- Sarah Stuart-Black, Director, Ministry of Civil Defence & Emergency Management.

Project Team and Secretariat

The project team and secretariat is headed by Jeremy Corban.

Appendix 2: Current Arrangements

This appendix outlines the current policy, legislative and institutional arrangements for responding to emergencies in New Zealand.

Policy

Emergency management in New Zealand is seen as a part of the national security system. National security is the condition which permits the citizens of a state to go about their daily business confidently free from fear and able to make the most of opportunities to advance their way of life. It encompasses the preparedness, protection and preservation of people, and of property and information - both tangible and intangible.

New Zealand takes an 'all hazards – all risks' approach to national security. This approach acknowledges New Zealand's particular exposure to a variety of hazards and threats, any of which could significantly disrupt the conditions required for a secure and prosperous nation.

The New Zealand system also emphasises the importance of resilience, for example the ability of a system to respond and recover from an event (whether potential or actual).

To achieve this, New Zealand takes an integrated approach to managing risk. Known as the 4Rs this encompasses:

- Reduction
- Readiness
- Response
- Recovery

See glossary for definitions.

Legislative and institutional arrangements

Management of response involves local and national agencies and at least 11 relevant Acts.

The main Act relevant to this review is the Civil Defence Emergency Management Act 2002 (CDEM Act). The CDEM Act was intended to **"ensure that New Zealand has the appropriate structures, expertise, and resources** to manage disasters at local and national levels[19]. The CDEM Act has a very wide definition of 'emergency' and provides additional powers in support of other Acts.

- [19] Third reading speech Minister of Civil Defence 8 October 2002

The Purpose of the CDEM Act

The purpose of the Act is set out in section 3 and covers:

- Improve and promote the sustainable management of hazards in a way that contributes to the social, economic, cultural and environmental well-being and safety of the public and the protection of property.
- Encourage and enable communities to achieve acceptable levels of risk by identifying risks and applying risk reduction management practices.
- Provide for planning and preparation for emergencies and for response and recovery in the event of an emergency.
- Require local authorities to coordinate CDEM through regional groups across the '4Rs' and encourage cooperation and joint action between those groups.
- Integrate local and national CDEM planning and activity through the alignment of local planning with a national plan and strategy.
- Encourage the coordination of emergency management across the range of agencies and organisations with responsibilities for preventing or managing emergencies.

The CDEM Framework

The Act is the overarching element in the CDEM Framework. Other elements include:

- CDEM Regulations made under the Act
- National CDEM Strategy
- National CDEM Plan 2015, and supporting Guide
- CDEM Group Plans
- Director's Guidelines on various aspects of CDEM
- Other legislation relevant to CDEM.

The role of the Director Civil Defence Emergency Management and MCDEM

The Act provides for the appointment of a Director CDEM, whose functions (set out in section 8) include:

- advising the Minister of Civil Defence
- identifying hazards and risks of national significance
- coordinating national implementation and promotion of civil defence emergency management
- monitoring and evaluating the national civil defence emergency management strategy
- developing, monitoring and evaluating the National CDEM Plan, technical standards and guidelines
- monitoring performance of CDEM Groups
- promoting civil defence emergency management. and
- directing and controlling the resources available for civil defence emergency management during a national disaster.

The Director CDEM is also the director responsible for the Ministry (MCDEM), an executive role in addition to the statutory role.

MCDEM is a business unit of the Department of the Prime Minister and Cabinet (DPMC). It is not mentioned in the CDEM Act. The functions and powers of the Director in the Act are enabled by the Ministry. The Ministry is also responsible for managing the operation of NCMC; the 'lead agency' for particular hazards – specifically for natural disasters (earthquake, tsunami, flood, other weather) for infrastructure failure, and the lead agency, for the coordination of welfare services aspects of emergency response and recovery.

Civil Defence Emergency Management Groups

Civil Defence Emergency Management Groups (Groups) are a core component of the Act. A Group is a consortium of the local authorities (regional and territorial) in a region, working in partnership with emergency services, to undertake CDEM functions within their region.

There are 16 Groups in New Zealand, generally following regional or unitary council boundaries.

The functions of Groups include.

- To identify and understand local hazards and risks and implement cost effective risk reduction measures.
- To appoint at least one suitably qualified and experienced person to be a Group Controller, who would (in the event of an emergency) have access to extraordinary powers under the Act to manage an effective response.
- To provide, or arrange to provide, suitably trained people and an appropriate organisational structure, for effective CDEM.
  - o A number of Groups have initiated a shared services approach, which to different degrees centralises and coordinates activities across the Group area. Many have Emergency Management Offices which oversee functions under the CDEM Act.
  - o MCDEM is developing an integrated training framework with local government to enhance CDEM staff competency.
  - o Some funding for CDEM training comes from the Tertiary Education Commission ($1m for emergency management training each year from Adult Community Education funds).
  - o Professional development and training for controllers is available through Massey University and Auckland University of Technology (AUT). Auckland Council sponsor a separate course for their controllers.
  - o This training is complemented by the national CDEM exercise programme that MCDEM manages – a ten year programme involving central and local agencies.
- To provide, or arrange to provide, other resources necessary for effective CDEM.
- To undertake response and recovery activities.
- If possible, to assist other groups implement CDEM when assistance is requested.
- To promote awareness of the Act and related legislation, and monitor and report on compliance.
- To prepare and implement a Group Plan. Failure to comply with the Plan is an offence under the Act.

(See section 17 for more details on functions, and section 26 for appointment of Group Controllers, and section 85 for Group powers during a state of emergency.)

Groups are established as joint standing committees (of local authority mayors and chairpersons or their delegates) under the Local Government Act 2002. The CDEM Act 2002 gives direction on voting rights and funding liabilities but remains flexible in other administrative aspects to reflect varying Group circumstances.

It is important to note the following points about Groups from the Act.

- Member local authorities have equal status.
- As part of the Group each mayor and regional chairperson agrees the plans under which the Group operates
- Individual local authority autonomy remains - mayors still have the right to declare an emergency within their territorial boundary; and each local authority (regional and territorial) is responsible for planning and provision of CDEM within its area, in addition to being part of the Group.
- Groups have discretion in regard to the split of functions between regional and district councils, and the contribution respective councils could make.
- If a territorial authority is split by the boundary between two regional councils, the territorial authority can choose which Group it wishes to belong to.
- Groups can choose to operate collectively, with two or more Groups acting as a single Group.
- Formal linkages are required to be made with emergency service providers.

Group Plans

Under the Act, every Group must prepare and approve a Civil Defence Emergency Management Plan (CDEM Plan). These plans must state and provide for (refer section 49 for full list):

- the local authorities that have united to establish the Group
- the hazards and risks to be managed by the Group
- the CDEM necessary to manage the hazards and risks
- the objectives of the plan and the relationship of each objective to the National CDEM Strategy
- the apportionment between local authorities of liability for the provision of financial and other resources for the activities of the Group, and the basis for that apportionment
- the arrangements for declaring a state of emergency in the area of the Group
- the arrangements for co-operation and co-ordination with other Groups.

The Act requires that Groups consult with the public over the development of their Group Plan and that interested persons may make submissions about the proposed plan to the Group. Each Group Plan must be reviewed after five years in operation.

- Link to Current Group plans from the MCDEM web site.

It is an offence to fail to comply with a requirement in a civil defence emergency management plan.

An Emergency, Declarations and associated Powers

The CDEM Act defines an emergency as a situation that:

- is the result of any happening, whether natural or otherwise, including, without limitation, any explosion, earthquake, eruption, tsunami, land movement, flood, storm, tornado, cyclone, serious fire, leakage or spillage of any dangerous gas or substance, technological failure, infestation, plague, epidemic, failure of or disruption to an emergency service or a lifeline utility, or actual or imminent attack or warlike act; *and*
- causes or may cause loss of life or injury or illness or distress or in any way endangers the safety of the public or property in New Zealand or any part of New Zealand; *and*

- cannot be dealt with by emergency services, **or** otherwise requires a significant and co-ordinated response under this Act.

The Act provides for local authority delegated representatives, mayors, or the minister, to declare a state of local emergency. The minister also may declare a state of national emergency. Declared emergencies last seven days, although they may be extended multiple times or terminated at any time.

- The Group must appoint one of its members (i.e. a mayor or chair of the regional council) to be authorised to declare a state of local emergency for its area. The area is the geographic scope of all the district and regional (or unitary) councils that are collectively covered by the particular group of councils. Commonly, the chair of the regional council is the appointed person.
- Notwithstanding that, any mayor can declare a state of local emergency for their district. This is one of the few real powers that mayors have by way of the position.
- The Minister of Civil Defence also has authority to declare a state of emergency over the whole of New Zealand or any part (down to a ward). This power has been used once, following the Christchurch 2011 earthquake.

Guidance or factors to consider may be in the relevant Group Plan for the area. The Director guidance is available on the MCDEM web site [DGL13/12]. Making a declaration because the public may derive assurance that everything is in hand is not specifically part of the current guidance.

Emergency powers under the CDEM Act 2002 enable Groups and Controllers to, among other things:

- close or restrict access to roads or public places and regulate land air and water traffic
- remove or secure dangerous structures and materials
- provide rescue, first aid, food, shelter etc.
- conserve essential supplies & regulate traffic
- dispose of dead persons and animals
- enter onto premises
- evacuate premises/places
- remove vehicles, vessels etc.
- requisition equipment, materials and assistance

    Refer section 85 for Group powers during a state of emergency, and Part 5 of the Act (particularly sections 86 to 92) for powers of Controllers.

Importantly, the CDEM legislation is not the only legislation whereby an 'emergency' of some sort triggers extraordinary power. Other Acts also provide powers during emergencies, with the definition of 'emergency' depending on the matter and scope of the related powers. Examples include 'emergency works' under the Resource Management (1991), 'drinking-water emergency' under the Health Act 1956, response to marine oil spills under the Maritime Transport Act (1974) and 'hazardous substances or new organisms emergency' (HSNO Act 1996), and powers under the Fire and Emergency New Zealand Act 2017.

Director CDEM and Minister of Civil Defence Powers

The Act provides additional powers to those available during a state of emergency.

- Regulations can be used to prescribe, amongst other things, the level of competence to be met by persons carrying out specified functions, performance standards, training systems, and regulating

activities that may impede or adversely affect the implementing a civil defence emergency management plan (section 115).

- If a CDEM Group or person fails to commence or to complete the performance of a function or duty under the Act the Director can complete the performance of that function or duty and recover the cost from the relevant CDEM Group or person (section 75).

- In certain situations the Minister may direct the Director or any CDEM Group or person to perform any function or duty or power conferred on that person or Group under the Act (or cease to perform etc) (section 84).

Command, Control, and Coordination

Definitions (from CIMS)

- Command (authority within an agency) is executed vertically, and includes the internal ownership, administrative responsibility, and detailed supervision of an agency's personnel, tasks, and resources. Command cannot normally be exercised outside an agency.

- Control (authority across agencies) is executed horizontally, and is the authority to direct tasks to another agency, and to coordinate that agency's actions so they are integrated with the wider response. Control authority is established in legislation or in an emergency plan. This is taken as the authority to task another agency towards a certain outcome (or example to achieve a managed evacuation).   It is not control over the actual resource – such as personnel or assets.

- Coordination: bringing together agencies and resources to ensure unified, consistent, and effective response. Command and control assist with coordination by defining authority between and within agencies.

Command

- The authority to command (within an agency/organisation) relies on the agency's hierarchy. The NZDF, police and fires services particularly use the language of 'command'.

- The powers of direction outlined in the CDEM Act from national controller to group controller to local controller can be considered as a command authority within that system. Also the authority from the joint committee (of elected council representatives) down to council executive and staff across all councils is also considered a command authority.

Control

- The position of (Local, Group, or National) Controller is a statutory role in the CDEM Act under a state of emergency. The extent of authority of the Controller to control in a state of emergency is outlined in the CDEM Act, National CDEM Strategy, the National CDEM Plan Order 2015; and the Group Plans. The Minister of Civil Defence also has control authority in states of emergency.

- The term 'lead agency' is also used to describe the agency with control authority over all agencies involved in the response to an event or hazard. The lead agency for specific events / hazards is identified in Appendix 1 of the National CDEM Plan Order 2015 and in the National Security System Handbook. CIMS notes that *'a lead agency is the agency with a mandate to manage the response to an incident through legislation, under protocols, by agreement, or because it has the expertise and experience.'* The extent of control varies and tends to be limited through legislation. See Chapter 6 for a discussion on the term 'lead agency'.

Coordination

- The Coordinated Incident Management System (CIMS) 2nd edition provides a framework that agencies can apply in emergency response. It is a guide, not a standard. CIMS functions include controller, operations, logistics, public information, planning, intelligence and welfare.
- Coordination across different entities (local and central government and emergency services) occurs through the national level ODESC and National Crisis Management Centre, Group level Co-ordinating Executive Group (set up by section 20 CDEM Act), and Emergency Coordination Centres (ECCs) and local Emergency Operation Centres (EOCs).
- References to the involvement of iwi in emergency management coordination and response is varied. There is no reference in legislation.

CIMS

The Coordinated Incident Management System (CIMS) 2nd edition provides a framework of principles, structures, functions, processes and terminology that agencies can apply in in both emergency and non-emergency incidents. Events might include public parades and marine mammal strandings through to search and rescue, communicable diseases, mass loss of life and disastrous natural hazard events.

CIMS describes how New Zealand agencies (for example government departments, emergency services, Red Cross) coordinate, command, and control incident responses of any scale, It covers how the response can be structured, provides common terminology, practical guidance such as standard colours for designated jobs, and the relationships between different CIMS functions. Functions/positions include: controller, logistics, public information manager, planning and welfare.

It is the primary reference for incident management in New Zealand. It is a guide and a tool, not a regulation that must be followed. It can be applied with different Acts of legislation - Health, Local Government, CDEM, Fire and Emergency NZ, etc. But, it does not provide guidance on the relationship between CIMS terms and statutory positions in New Zealand legislation, for example Group Controller (CDEM Act) or on-scene commander (Maritime legislation).

Reference to iwi

There is inconsistent reference to the participation of iwi in the key CDEM documents and the role of iwi is different in the various layers of CDEM planning. Current CDEM legislation does not mention iwi.

The National CDEM strategy states: *'Māori have a particular interest in the management of hazards and associated risks, including risks that may be posed to wāhi tapu sites and other sites of significance. It is important that whānau, hapū, iwi and the wider Māori community are involved in CDEM planning. In addition, Māori communities often have important resources for response and recovery, such as marae for use as emergency shelters, and Māori welfare and support services.'*[20]

The National CDEM Plan Order 2015 refers to the role iwi/Māori can play in an emergency as well as the role of Te Puni Kōkiri (TPK) in facilitating and coordinating support to iwi/Maori and providing links between iwi and the emergency management sector.

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[20] National Civil Defence Emergency Management Strategy 2007

TPK has obligations under the National CDEM Plan to:

- prepare for and deliver welfare services as a support agency
- engage with Māori communities to support meeting their needs during and following an emergency, and
- Work with Government agencies/ Groups to facilitate and coordinate support for Māori requiring assistance.

Welfare

Under CIMS, local authorities have responsibility to plan and deliver welfare services (including shelter and accommodation) in an emergency. Each Group has established a welfare coordination group (or committee) which is comprised of welfare and social service agencies including government agencies and is chaired by the Group Welfare Manager.

The welfare coordination group has commonly developed a Group Welfare Plan and, where needed, sub-committees. Various government agencies sit on the committee. TPK is commonly listed as the 'iwi representative' entity on Group welfare coordination groups.

MCDEM currently has the lead for coordinating welfare services across the 4R's (including response).

Animal welfare, domestic and farm, is also part of the welfare function, and the responsibility of the Ministry for Primary Industries.

Public information and Education

MCDEM and CDEM Groups promote emergency preparedness during 'peacetime' through public information and education. This helps to ensure that people are aware of and understand the hazards in their area, and know what to do before, during, and after an emergency.

The aim is to help communities be better equipped to take care of themselves and others, relieving pressure on response personnel.

To ensure consistency, this public information often promotes messages and campaign resources developed at the national level, with locally specific messaging and material incorporated as appropriate.

Intelligence and Situational Awareness

Decision making for coordination, command, and control rely on shared situational awareness and intelligence.

- At present there is one National Crisis Management Centre (NCMC). When an all-of-government response is called for, following activation of the national security system, it is expected that this will be led out of the NCMC.
- Most agencies involved in emergency response also have their own coordination centres.
- There is no shared system for a common operating picture.
- Many agencies also have 24/7 monitoring and response function, including NZ Police, NZDF, FENZ, the New Zealand Rescue Coordination Centre, ambulance services, utility operators, Met Service and others.

- MCDEM, local government and GNS Science have duty rosters of people on call if an event happens. Duty Teams assess information about hazards, decide actions (such as issuing warnings) and commence a response.

Guidelines

The Act provides the Director with the authority to issue technical standards and guidelines. The purpose of these guidelines is to assist organisations with responsibilities under the Act to properly exercise those responsibilities. The Act requires that CDEM Group Plans 'must take account of' the guidelines, codes, or technical standards issued by the Director (section 53(2)).

The Director has issued guidelines and standards on a range of CDEM – related issues. They are grouped in different series as follows:

- Director's Guidelines (DGLs)
- Best Practice Guides (BPGs)
- Technical Standards (TS)
- Information Series (IS)
- Supporting Plans (SPs)

Other CDEM Related Legislation

Legislation relating to CDEM is not just limited to the Civil Defence Emergency Management Act 2002. A number of other Acts also play a role in CDEM by, for example, regulating activities of particular CDEM participants. They include (but are not limited to) the:

Biosecurity Act 1993

Building Act 2004

Canterbury Earthquake Recovery Act 2011

Defence Act 1990

Earthquake Commission Act 1993

Epidemic Preparedness Act 2006

Fire and Emergency New Zealand Act 2017

Hazardous Substances and New Organisms Act 1996

Health Act 1956

Health and Safety in Employment Act 1992

Local Government Act 2002

Maritime Transport Act 1994

Public Works Act 1981

Resource Management Act 1991

Appendix 3: List of submissions

Name	Submission #
Alan Thompson	0015
Alison Prins	0024
Allan Jenkins	0001
Ambulance New Zealand	0035
Auckland Council	0028
Bay of Plenty CDEM Group	0041
Blind Citizens NZ	0069
Breaker Bay Wellington	0048
Canterbury CDEM Group	0073
Chris Carding	0011
Chris Hibbert	0078
Clinton Naude	0065
David Beatson	0051
Derek Phyn	0062
Dr Alastair Barnett	0021
Dr Peter Tillmann	0004
Drew Mehrtens	0060
Emergency Media and Public Affairs	0067
Engineering Leadership Forum	0053
Federated Farmers	0063
Gavin Treadgold	0070
Gisborne District Council	0044
Gordon Payne	0008
Hamish Keith	0057
Hawke's Bay Civil Defence Emergency Management Group	0022
Hon Te Ururoa Flavell	0049
Insurance Council of New Zealand	0071
International Association of Emergency Managers	0046
Jake Brookie	0076
John Coburn	0017
John Meeuwsen	0050
Jon Mitchell	0074
Katrina Banks	0007
Keith Suddes	0029
Mark Constable	0018
Marlborough CDEM Group	0037
Matthew Nolan	0019
Mere Taito	0068
Ministry for Primary Industries	0031
Ministry of Business, Innovation & Employment	0036

Ministry of Civil Defence & Emergency Management	0055
Ministry of Health	0061
Ministry of Transport, transport Crown Entities & transport State-Owned Enterprises	0052
Murray Dudfield	0014
Neville Hudson	0030
New Zealand Institute of Animal Management	0026
New Zealand Red Cross	0072
Ngāti Awa Volunteer Army	0079
Nick Watson	0006
Northland Coordinating Executive Group	0059
NZ Airports Association	0038
Otago CDEM Group	0043
Pat Ingram	0003
Peter Davies	0013
Robert Barlin	0042
Royal New Zealand SPCA	0033
Science New Zealand	0058
Selwyn District Council	0032
Shaun	0002
Shell Sanerive-Pere	0012
Simon Fleisher	0016
Southland CDEM Group	0039
St John New Zealand	0020
Statistics NZ	0056
Stephen Ward	0023
Steve Critchlow	0025
Steve Glassey	0009
Tane Woodley	0027
Taranaki CEG & Rural Advisory Group	0080
Te Kaahui o Rauru	0034
Te Rūnanga o Ngāi Tahu	0075
Te Runanga o Ngati Awa	0040
Toi Moana - Bay of Plenty Regional Council	0064
Vanessa McDonald	0047
Volunteering New Zealand	0066
Waikato CDEM Group	0045
Wellington Free Ambulance	0054
Wellington SPCA	0010
Whakatane and District Federated Farmers	0077

Appendix 4: List of engagements

By regional/unitary area, in alphabetic order, followed by national entities.

Auckland
Auckland Council
Mayor, Chief Executive and Director Civil Defence and Emergency Management
Waikato
Taupo District Council
Mayor, Chief Executive and Councillors
Thames Coromandel District Council
Mayor and Chief Executive
Bay of Plenty
Bay of Plenty Emergency Management
Director Emergency Management Bay of Plenty
Bay of Plenty Regional Council
Chairman and Chief Executive
Ngāti Awa (mana whenua for Whakatane)
Chief Executive Officer, Manager Policy & Strategy, Chief Executive Officer for Ngāti Awa social and health organisation
Te Uru Taumatua (Tuhoe) (mana whenua for Te Uruwear, Ruatoki, Rua Tahuna)
Chief Executive Officer
Ngāti Manawa (mana whenua for Rangipo)
Chairman
Te Puni Kōkiri
Regional Manager and Senior Advisor
Opotiki District Council
Mayor
Tauranga City Council
Mayor, Chief Executive and GM Community Services
Whakatane District Council
Mayor, Chief Executive and Controller
Hawke's Bay
Hastings District Council
Mayor
Manawatu-Whanganui
Horizons Regional Council
Chief Executive, Controller and Manager EMO
Horowhenua District Council
Mayor and Councillor
Rangitikei District Council
Mayor and Chief Executive
Whanganui District Council
Mayor, Chief Executive, CD Emergency Manager and Controllers
Whanganui Iwi Chairs
Chair of Ngā Tāngata Tiaki, General Manager of Ngā Rauru, trustee of Ngā Tāngata Tiaki board, TPK and organisation spokesperson for Te Oranganui, Chair of Te Rūnanga o Ngāti Apa
Wellington
Dame Margaret Bazley
Emergency Media and Public Affairs
Chief Executive
Engineering Leadership Forum

Secretary, Engineering Leadership Forum and Chief Executive Officer, Water New Zealand	
Kapiti Coast District Council	
Mayor and Chief Executive	
NZ Response Team	
Representatives from the NZ Response Team	
Readynet	
Founder	
Wellington SPCA	
Chief Executive	
Wellington City Council	
Mayor, Chief Executive and Controller	
Wellington Free Ambulance	
Chief Executive	
Wellington region's Coordinating Executive Group	
Group consisting of representatives from Hutt City Council, Wairarapa DHB, Hutt Valley DHB, Upper Hutt City Council, MSD, Kapiti Coast District Council, Porirua City Council, Carterton District Council	
Associate Professor, Translation Studies (University of Auckland), Lecturer in Translation Studies (Dublin City University), Director Centre for Translation & Textual Studies (Dublin City University), Lecturer in Translation & Technology (University College London)	

Nelson-Tasman

Tasman District Council
Mayor and Chief Executive Officer

West Coast

West Coast Regional Council
Chairman and Chief Executive

Canterbury

Christchurch City Council
Mayor and General Manager Customer and Community/Manager Civil Defence
Environment Canterbury
Chief Executive
Hurunui District Council
Mayor, Chief Executive and Controller
Kaikoura District Council
Mayor, Chief Executive, Controller, Emergency Management Officer and Advisor to the CE
Ngāi Tahu
Director, Earthquake Response & Recovery, Project Advisor, GM Oranga, GM Strategy and Influence
Selwyn District Council
Mayor and Chief Executive
Student Army
Co-founder
Waimakariri District Council
Mayor, Chief Executive and Controller

Otago

Central Otago District Council
Mayor
Dunedin City Council
Mayor and Chief Executive/Controller
Otago Civil Defence Emergency Management Group
Chris Hawker – Group Manager/Controller
Otago Regional Council
Chief Executive
Waitaki District Council
Mayor

National
Clare Curran MP – Labour for Dunedin South
Coordinating Executive Group (CEG) Chairs A forum bringing together Chairs from around the country
Cross Party Reference Group (Nominated members below, although other party members also attended) Jan Logie, Ron Mark, Clayton Mitchell, Marama Fox, David Seymour, Hon Peter Dunne and Clare Curran
Fire and Emergency NZ Representatives from Fire & Emergency NZ consisting of the Fire Region Manager (member of the TAG), Chair of Fire Service Board, Chief Executive, National Commander Urban, Fire Region Manager, Assistant National Commander, Fire Region Manager, Fire Region Manager, Area Commander
Headquarters Joint Forces New Zealand (NZDF) Representatives of Joint Forces NZ consisting of the Commander Joint Forces NZ (member of the TAG), Deputy Commander Joint Forces NZ, Maritime Component Commander, Land Component Commander, Air Component Commander, Joint Services Component Commander, Special Operations Component Commander, Operations, Plans, Logistics and Commander of Joint Forces Combined Task Group
Hon Te Ururoa Flavell - Māori Development Minister
LINZ Group Manager
LGNZ advisory group Representatives consisting of the Chief Executive - LGNZ (member of the TAG), Community Resilience Manager - Northland Regional Council, Chief Executive - Hauraki District Council, Chief Executive - Napier City Council, Chief Resilience Officer - Wellington City Council, CEO Ruapehu District Council. Group Controller – Canterbury
Media representatives Representatives from Radio NZ, Radio Broadcasters Association, Three and Community Access Radio
Ministry of Business, Innovation & Employment (MBIE) General Manager Commercial, Consumers & Communications and Policy Director
Ministry of Civil Defence & Emergency Management Representatives from the Leadership Team consisting of the Director (member of the TAG), Manager Development, Manager Capability & Development, Manager Analysis & Planning, Principal Advisor Emergency Management, Principal Advisor to Director and Communications Manager
Ministry of Foreign Affairs & Trade (MFAT) Manager Emergency Management Programme and Director Humanitarian
Ministry of Health Director - Emergency Management, Director of Public Health, Director Protection, Regulation and Assurance
Ministry for Primary Industries Response Manager, Principal Advisor, South Island Manager, Manager North Island Regions, Animal Welfare and Animal Products and National Animal Welfare Emergency Management Coordinator
National party MPs Stuart Smith MP (for Kaikoura), Andrew Bayly MP (for Hunua), Maureen Pugh MP (based in West Coast-Tasman) and Ian McKelvie MP (for Rangitikei)
NZ Collective of Group Controllers (represented by a nominated subset) consisting of: Bruce Pepperill (Wellington), Michael McCartney (Horizons) and Chris Hawker (Otago)
NZ Police Representatives from NZ Police consisting of the Assistant Commissioner – Response and Operations (member of the TAG), National Manager Response and Operations, District Commander Bay of Plenty, Manager Command and Emergency Management, Manager Operations Planning, District

Manager Ops Support, District Deployment Coordinator, District Operations Manager, Area Commander Eastern Waikato, District Manager Operations Support Bay of Plenty and District Operations Manager Northland District
ODESC Hazard Risk Board
Consisting of representatives from DPMC, Defence, Police, Ministry for Primary Industries, Ministry of Health, Ministry of Transport, Ministry of Foreign Affairs and Trade and Department of Internal Affairs
Office of the Prime Minister, Chief Science Advisor
Chief Science Advisor to the Prime Minister and Research Analyst
Red Cross
International and National Disaster Management Officer and International Programme Manager
St Johns
Chief Executive and Clinical Manager
Te Puni Kōkiri
Deputy Chief Executive, Regional Partnerships and Senior Advisor
TOLL
Group General Manager
Transport Agencies
Representatives from various transport agencies consisting of Deputy Chief Executive - Civil Aviation Authority, Project Director - Wellington Transport Operations Centre NZTA, General Manager Safety and Response - Maritime New Zealand, National Control Centre Manager – KiwiRail, Manager Operations Development – KiwiRail, General Manager Aviation and Maritime - Ministry of Transport, Policy Advisor - Ministry of Transport, Manager People and Environment - Ministry of Transport, Manager Aviation & Security - Ministry of Transport

International
Director-General Emergency Management Australia
Senior Fellow in Civil Protection, United Kingdom

Appendix 5: List of declarations of state of emergency

Region	Hazard Type	Locality	When and declared days	Comment
2002 – 1 event, 2 declarations				
Waikato	Flooding	Putararu & Tirau Wards	21/06/2002 (2 day)	'Weather Bomb', water supply issues, road closures, no evacuations
Waikato	Flooding	District	21/06/2002 (2 days)	Up-scaled to District SOE, 1 death, evacuations required
2003 – 1 event				
Wellington	Flooding	District	4/10/2003 (5 days)	Damage to Paekakariki, evacuations required, duration of SOE due to clean-up
2004 – 2 events. 7 declarations				
Marlborough	Flooding	Picton Ward	17/02/2004 (1 day)	Evacuations due to fear of landslip-induced dam break
Manawatu-Wanganui	Flooding	District	16/02/2004 (1 day)	Up-scaled to Regional SOE
Manawatu-Wanganui	Flooding	Marton Ward	16/02/2004 (1 day)	Up-scaled to Regional SOE
Manawatu-Wanganui	Flooding	Region	17/02/2004 (8 days)	'Weather Bomb', infrastructure disruptions, evacuations required
Taranaki	Flooding	Patea Ward	17/02/2004 (10 days)	Water supply issues, road closures, evacuations required
Bay of Plenty	Flooding	Waiotahi Ward	17/07/2004 (6 days)	Road closures, 1 death, evacuations required
Bay of Plenty	Flooding	Whakatane Ward	17/07/2004 (13 days)	Infrastructure disruptions, 1 death, evacuations required
2005 - 1 event – 2 declarations				
Bay of Plenty	Landslides	Edgecumbe-Tarawera Ward	17/05/2005 (13 days)	Matata township damage due to debris flows
Bay of Plenty	Landslides	Tauranga City	18/05/2005 (1 day)	Evacuations required, formally declared (?)
2006 - 1 event				
Manawatu-Wanganui	Flooding	Region	7/07/2006 (1 day)	SOE declared overnight to enforce evacuations
2007 4 events				
Taranaki	Tornado	Region	5/07/2007 (2 days)	Dwelling and property damage
Northland	Flooding	Far North District	10/07/2007 (3 days)	Far North District area, dwelling damage
Otago	Flooding	Milton Ward	30/07/2007 (1 day)	Localised township flooding, but SOE declared
Gisborne	Earthquake	Gisborne City	21/12/2007 (1 day)	Building damage and power supply issues
2008 – 1 event				
Marlborough	Flooding	Picton Ward	30/07/2008 (1 day)	SOE declared to assist Police with evacuations
2009 – 1 event				
Waikato	Landslides	Taupo Ward	29/06/2009	Village of Waihi evacuated

			(1 day)	
2010 – 1 event				
Canterbury	Earthquake	Region	4/09/2010 (11 delays)	Dwelling and property damage, infrastructure damage
2011 – 4 events				
Canterbury	Earthquake	Christchurch City	22/02/2011 (superceded)	181 deaths, major infrastructure and dwelling and property damage
		National	23/02/2011 (66 days)	
Hawke's Bay	Flooding	Central Hawke's Bay District	28/04/2011 (5 days)	Central Hawke's Bay District area
Nelson-Tasman	Flooding	District	13/12/2011 (15 days)	Dwelling damage, infrastructure damage, evacuations required
Canterbury	Earthquake	Region'	23/12/2011 (1 day)	NCMC activated, but stood down shortly thereafter
2012 – Nil [Mt Tongariro unrest; no SOE's declared]				
2013 – 1 event				
Manawatu-Wanganui	Flooding	Whanganui Ward	14/10/2013 (1 day)	Whanganui river threat
2014 - Nil [Auckland power outage; no SOE's declared]				
2015 – 2 events 4 declarations				
Chatham Islands	Cyclone	Chatham Islands	16/03/2015 (3days)	Cyclone Pam and rural fires
Manawatu-Wanganui	Flooding	Rangitikei District	20/06/2015 (2 days)	Dwelling damage, road closures
Manawatu-Wanganui	Flooding	Whanganui District	20/06/2015 (12 days)	Largest ever recorded flood in the Wanganui District; Dwelling damage, infrastructure damage, evacuations required
Taranaki	Flooding	South Taranaki District	20/06/2015 (7 days)	Flooding in Waitotara township in South Taranaki; evacuations required
2016 – 2 events. 4 declarations				
West Coast	Flooding	Westland District	24/03/2016 (1 day)	Waiho River flooding at Franz Josef township; water supply issues, tourism impacts (i.e. loss of revenue)
Otago	Earthquake	Dunedin City	14/11/2016 (<1 day)	Kaikoura Earthquake
Canterbury	Earthquake	Kaikoura District	14/11/16 (1 day)	Overtaken by later regional declaration
Canterbury	Earthquake	Hurunui District	14/11/16 (1 day)	Overtaken by later regional declaration
Canterbury	Earthquake	Region	15/11/2016 (22 days)	Kaikoura Earthquake
Canterbury	Earthquake	Kaikoura District	06/12/2016 (4 days)	Kaikoura Earthquake
2017 (to date) - 5 events 13 declarations				
Hawke's Bay	Fire	Hastings District	13/02/2017 (3 days)	Hawke's Bay fires
Canterbury	Fire	Christchurch & Selwyn	15/02/2017 (15 days)	Christchurch Port Hills fires

Manawatu-Wanganui	Flooding	Whanganui District	04/04/2017 (3 days)	Declared in advance of expected impacts from Ex Tropical Cyclone Debbie
Manawatu-Wanganui	Flooding	Rangitikei District	04/04/2017 (3 days)	Declared in advance of expected impacts from Ex Tropical Cyclone Debbie
Bay of Plenty	Flooding	Whakatane District	06/04/2017 (6 days)	Edgecumbe flooding. State of local emergency overriden by Bay of Plenty declaration on 11 April 2017.
Bay of Plenty	Flooding	Bay of Plenty	11/04/2017 (4 days)	Declaration covering the whole Bay of Plenty area in anticipation of heavy rainfall. This overrode previous, more limited state of emergency over Whakatane District.
Waikato	Severe weather	Thames Coromandel District	12/04/2017 (3 days)	Declared in advance of expected landfall of Cyclone Cook
Bay of Plenty	Severe Weather	Whakatane District	14/04/2017 (7 days)	Declared to enable the continued response to Edgecumbe and the surrounding areas.
Canterbury	Flooding/severe weather	Timaru District	21/07/2017 (1 day)	Declared due to significant rainfall and flooding. Evacuations required
Canterbury	Flooding/severe weather	Selwyn District	21/07/2017	Declared locally due to flooding and Selwyn River overtopping its banks
Canterbury	Flooding/severe weather	Christchurch city	21/07/2017	Declared locally due to Heathcote river bursting its banks and flooding in parts of the city
Otago	Flooding/severe weather	Dunedin City	21/07/2017 (3 days)	Declared locally and up-scaled to cover three coastal districts in Otago region; roads affected by flooding and evacuations required in low-lying areas
Otago	Flooding/severe weather	Waitaki District	21/07/2017 (3 days)	Declared locally and up-scaled to cover three coastal districts in Otago region; widespread flooding and breached banks.

Appendix 6: Glossary of key terms

Term / Acronym	Definition
4R's	The four parts of emergency management, being reduction, readiness, response and recovery ['recovery' is defined in the CDEM Act section 4, and all 4Rs are defined in the National CDEM Plan Order 2015 clause 2]: a. **Reduction**: identifying and analysing long-term risks to life and property from hazards, taking steps to eliminate those risks if practicable, and, if not, reducing the magnitude of their impact and the likelihood of their occurrence to an acceptable level; b. **Readiness:** developing operational systems and capabilities before an emergency happens, including self-help and response programmes for the general public and specific programmes for emergency services, lifeline utilities, and other agencies; c. **Response:** actions taken immediately before, during, or directly after an emergency to save lives and property, and to help communities recover; and d. **Recovery:** means the co-ordinated efforts and processes used to bring about the immediate, medium-term, and long-term holistic regeneration and enhancement of a community following an emergency
CDEM	(Pronounced sea-dim) Civil Defence Emergency Management – a phrase or acronym generally used alongside entities or documents established by, or required by, the CDEM Act 2002.
CIMS	Refer to **Coordinated Incident Management System**
Civil Defence Emergency Management (CDEM) Group	A Group established under section 12 of the CDEM Act 2002, members being the mayor or chairperson of that local authority or delegate elected councillor 'every regional council and every territorial authority within that region must unite to establish a Civil Defence Emergency Management Group for the purposes of this Act as a joint standing committee under clause 30(1)(b) of Schedule 7 of the Local Government Act 2002'
Common operating picture	An understanding of a situation based on the best available information, shared among all agencies.

Controller	The person in charge of a response element who directs response activities, and fulfils management functions and responsibilities and exercises control. References in this report to a **Group Controllers** and **Local Controller** as those who are appointed by the CDEM Group under section 26 and section 27 respectively of the CDEM Act 2002, and reference to **National Controller** is a person with functions and powers in a national state of emergency under section 10 of the CDEM Act.
Coordinated Incident Management System (CIMS)	(Pronounced sims) The Coordinated Incident Management System (CIMS), now in its 2nd edition, provides a framework of principles, structures, functions, processes and terminology that agencies can apply in in both emergency and non-emergency incidents.
Coordinating Executive Group (CEG)	(pronounced keg) CDEM Coordinating Executive Group established under section 20 of the CDEM Act 2002, and comprising of generally senior officials from each member local authority, Police, Fire and Emergency New Zealand, and a provider of health and disability services (generally represented by the District Health Board) and other co-opted members.
Declaration	Used as short hand for a declaration under the CDEM Act 2002, refer to **state of emergency**
DHB	District Health Board
Director	Director CDEM, a statutory position appointed under section 8 of the CDEM Act
DPMC	The Department of the Prime Minister and Cabinet
Emergency	In general, an emergency is a situation that poses an immediate risk to life, health, property, or the environment that requires a significant and coordinated response. It has a specific meaning under the CDEM Act 2002 section 4 as it is relevant to the decision to declare a 'state of emergency'. See Appendix 2, Current Approach and discussion under 'An emergency Declarations and associated Powers'.
Emergency Management Information System (EMIS)	(Pronounced e-miss) A software tool and workflow system aimed at managing requests, tasks and resources, logging information, and the collation and filing of developed datasets such as action plans and situation reports. It is supported by MCDEM and used by local government in relation to CDEM activities and events.
Emergency Operation Centre (EOC)	In this report an EOC refers to a facility, generally operated by a local authorities, which when activated acts as a coordination and control centre for local (as opposed to national) emergency response and

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	support. The term is used in CIMS, and in CDEM guidance, but not in the CDEM Act 2002.
FEMA	Federal Emergency Management Agency (USA)
FENZ	Fire and Emergency New Zealand - established on 1 July 2017: the amalgamation of the New Zealand Fire Service, the National Rural Fire Authority, 12 enlarged rural fire districts and 26 territorial authority rural fire authorities.
GNS Science	Institute of Geological and Nuclear Sciences Ltd (NZ), Te Pū Ao, a Crown Research Institute providing earth, geoscience and isotope research and consultancy services
Group	Refer to **Civil Defence Emergency Management (CDEM) Group**
Group Plan	A statutory document produced by the CDEM Group under the CDEM Act 2002 - section 49 set outs its contents.
Intelligence	1. The function that collects and analyses response information, particularly that related to status, hazards, consequential risks, and the context of the incident. 2. The collection, evaluation, and analysis of response information, aimed at producing forecasts on how the response may develop
Joint Committee	A joint standing committee under section 12 of the CDEM Act comprising the regional council and territorial authorities within the region.
Lead agency	This report recognises that there are various definitions. Refer to Chapter Six for discussion
Lifeline utility	Any organisation named or described in Schedule 1 of the CDEM Act 2002. This includes airports, ports, railways, and providers of gas, electricity, water, wastewater or sewerage, storm water, telecommunication, roading networks and petroleum products.
Local government	Collectively regional councils, unitary councils, district councils and city councils - a total of 78 in New Zealand. Also called local authorities.
Major incident	A proposed new status of activity – an incident or event which meets the threshold for initiating a response but does not require extraordinary powers under the CDEM Act 2002. Refer to Chapter 3 for discussion
MBIE	Ministry of Business, Innovation and Employment
MCDEM	Refer to **Ministry of Civil Defence & Emergency Management**

Ministry of Civil Defence & Emergency Management (MCDEM)	The central government agency, a Ministry set up by Cabinet, to give effect to the functions of the Director CDEM. It is responsible for providing leadership, strategic guidance, national coordination and facilitation, and the promotion of various key activities, taking an 'all-hazards approach' across the 4R's.
MSD	Ministry of Social Development
National Crisis Management Centre (NCMC)	A secure all-of-government facility maintained in a state of readiness to manage the national response to emergencies, sometimes colloquially referred to as 'the bunker'.
National Security System Handbook	A DPMC produced handbook that sets out New Zealand's arrangements with respect to both to the governance of national security and in response to a potential, emerging or actual national security crisis
NZDF	New Zealand Defence Force
NZRT	New Zealand Response Team
OAG	Office of the Auditor-General New Zealand
Public Information Management (PIM)	The function that, during an incident, prepares, distributes, and monitors information to and from the media and public.
Regional council	A regional council named in Part 2 of Schedule 2 of the Local Government Act.
State of Emergency	Used in this report to refer to the 'state of emergency' that results from a declaration under the CDEM Act 2002. A **state of local emergency** is declared under section 68 or section 69. A **state of national emergency** can only be declared by the Minister of Civil defence under section 66.
TAG	Technical Advisory Group set up to conduct this review
Territorial (Local) Authority (TLA)	A city council or a district council named in Part 2 of Schedule 2 of the Local Government Act.
TPK	Te Puni Kōkiri
Unitary authority (Council)	A territorial authority that has the responsibilities, duties, and powers of a regional council conferred on it.

Appendix 7: Secondary matters

In the course of this review, the Technical Advisory Group were made aware of a range of more secondary matters that are not specifically dealt with in this report. The most material of these are listed here (in no particular order). They may be usefully considered as part of future work.

1. *White Island.* For White Island and a number of other offshore islands, the Local Authority is the Minister of Local Government by default. As these islands are not within any territorial local authority boundaries, this can create an issue for resourcing response activities.

2. Variation in *geographic boundaries of response agencies* – the difference in boundaries (Fire and Emergency New Zealand, Police, CDEM Groups, Rural support etc.) can create confusion and require multiple points of liaison.

3. Administrative restrictions - under standing orders (Local Government Act 2002) a *CDEM Group can't make a decision without physically meeting*, adding cost and time.

4. *Liability* of council chief executives due to the fact that they employ CDEM staff and have PCBU ('person conducting a business or an undertaking') responsibilities. Submissions also raised liability of Controller decisions.

5. Confusion over responsibilities for *animal welfare and rescue* (including companion animals) and respective roles.

6. The relationship between *state of emergency declaration and insurance policies –* noting the variation in policies and practice. Business continuity insurance was particularly raised.

7. Review of the *financial arrangements* by which response and recovery costs are covered and reimbursed.

8. A *number of recovery matters,* including dealing with land affected by events and increasing the hazard risk, but the associated buildings remained structurally sound.

9. Multiple agencies involved in provision of *temporary housing,* with a potential for confusion and/or reduced efficiency.

10. Need for *business continuity planning* generally.

11. Better *privacy / information sharing protocols* for collecting and sharing personal information during an event.

Appendix 8: References

2016 Waroona Inquiry SESVA Position Paper

A Report on the Role of the Media in the Information flows that Emerge during Crisis Situations

ACSES Performance Indicators 2012

An Emergency Management Framework for Canada - Third Edition

Briefing to the incoming Minister of Civil Defence

British Columbia Emergency Management System

CDEM National Capability Assessment Report

Copernicus Emergency Management Service Factsheet

Corrective Action Plan - following the Review of the Civil Defence Emergency Management Response to the 22 February 2011 Christchurch Earthquake

Crisis Communication: Saving Time and Lives in Disasters through Smarter Social Media

Declarations – Director's Guidelines for the CDEM Sector

Emergency Management Performance Standards

Exercise Whakautu II Post- Exercise-Report

FEMA - Logistics Partners, could strengthen implementation of capability assessment tool

FEMA Has Made Progress since Hurricanes Katrina and Sandy, but Challenges Remain

Havelock North Drinking Water

How Social Media Is Changing Disaster Response

Inquiries into Recent Natural Disasters in Australia - Canberra Firestorm

INSARAG Guidelines 2012

Independent Operational Review – Port Hills fires February 2017

International Disaster Response

Joint Emergency Services Interoperability Principles Review

Kaikoura Earthquake Response Review

Maritime NZ Oil Spill Response Strategy

Ministry of Civil Defence & Emergency Management Business Plan 2016-2020

Modernize North Carolina Emergency Management Act

National Civil Defence Emergency Management Plan Order 2015

National Civil Defence Emergency Management Strategy

National Response Framework (FEMA)

National Security System Handbook

Next-Generation Incident Command System Fact Sheet

Office of the IGEM Strategic Plan 2017-2021

Rangitāiki River Scheme Review – April 2017 Flood Event

Responses to, and lessons learnt from, the January and February 2016 bushfires in remote Tasmanian wilderness

Review 2010-2011 flood warnings and response - Victoria

Review of the Actions taken by Whakatāne District Council - Flooding events April 2017

Review of the Response by the Hastings District Council to the Contamination of the Havelock North Water Supply

Sage advice? A note on The Cabinet Office Enhanced SAGE Guidance. A strategic framework for the Scientific Advisory Group for Emergencies (SAGE)

SESVA Constitution

Significance of Communication in Emergency Management

State and Territory Emergency Service National Performance Indicators

The Politics of Operations

Toward the Regulation of Ubiquitous Mobile Government - A Case Study on Location-Based Emergency Services in Australia

UNDAC Field Handbook (6th edition 2013)

UNDAC Review 2011

Use of Science in Humanitarian Emergencies Disasters

Victorian Emergency Management Reform White Paper

Victorian Information Network for Emergencies (VINE) High-level reference architecture May 2013

Waroona Bushfire Special Inquiry

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Agility and Discipline: Critical Success Factors for Disaster Response
Harrald, John R. George Washington University (GWU) Institute for Crisis, Disaster, and Risk Management, GWU School of Engineering and Applied Science *The ANNALS of the American Academy of Political and Social Science* Vol 604, Issue 1, pp. 256 - 272 First published date: September-08-2016 *10.1177/0002716205285404*
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