Napier City Council response to Cyclone Gabrielle

Independent review

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Quality Assurance Statement		
[signature]	Reviewed by:	David Parsons, Crisis Management Australia

Acknowledgements

Table of contents

Introduction

Cyclone Gabrielle, one of the deadliest and costliest disasters in modern New Zealand history, impacted the country in February 2023. Napier City Council (NCC) engaged Resilient Organisations in May 2023 to undertake a review of their response to the cyclone.

This report reviews NCC's response to Cyclone Gabrielle and makes recommendations to further enhance their response capability for any future crisis event. It identifies aspects of the NCC response that went well, aspects that should be retained or built upon, and aspects that require improvement. The scope of this review includes NCC's internal response coordination (crisis management and business continuity activation) and external focused response (civil defence and emergency management*). Recovery arrangements are outside the scope of this review.

Post-event reviews are common practice for crisis and emergency management. They assist in capturing lessons and enabling improvements to be made for responding more efficiently and effectively to future events.

In preparing this report, the authors were mindful that the impact of future events may be very different to those of Cyclone Gabrielle. This is reflected in the recommendations, most of which are aimed at improving preparedness for a range of potential crisis scenarios.

Information for this report was gathered from a variety of sources:

- internal NCC documents including summaries of response teams reflections, prior response review, business continuity documentation, personal correspondence,
- 39 in-person and virtual interviews with key response personnel
- an in-person workshop with key NCC staff involved in the response,
- an in-person workshop with external parties involved in the NCC response, and
- an in-person workshop with NCC elected members.

A range of perspectives were captured during the information collection process, however there was a high degree of consistency across all sources regarding the key observations.

> ***NB:** Within this report, "Civil Defence Emergency Management (CDEM)" is referred to as "Emergency Management (EM)", unless explicitly referred to otherwise (e.g., under the current CDEM Act). This is in line with the current Bill before Parliament, which proposes changing the name CDEM to Emergency Management.

Summary of findings

NCC was hugely unprepared for Cyclone Gabrielle in terms of EM capability. There are many reasons for this, including significant organisational change and turnover, human biases around likelihood and severity of disaster occurrences, and system changes within the region's EM structure yet to be fully operationalised.

Effective and efficient emergency response requires both planned and adaptive measures. Planned response structures, processes, actions, and networks enable organisations to focus on the adaptive actions needed for the specific context. Emergency readiness planning was not institutionalised within NCC. Although I commend efforts that commenced in 2022 to rebuild this capacity, it was too little and too slow. This left NCC almost wholly reliant on the amazing adaptiveness and willingness of their staff to respond.

The focus of this report is not on why NCC was not prepared, but on charting a path forward.

Key recommendations discussed in the body of this report include:

- Response capability training
- Investment in response systems/processes/templates
- Improved Emergency Operations Centre (EOC) activation processes
- Greater resourcing for PIM/communications response team
- Welfare pre-planning
- Clarification of roles and responsibilities: development of a crisis management plan and elected representatives guide
- Operations function design work
- Business continuity plan improvements
- Work on effective resourcing and operationalisation of the iwi liaison function
- Inclusion of the safety function earlier in any response
- Work nationally on standard operating procedures (SOP) for disaster de-contamination issues such as Awatoto
- Infrastructure resilience: communications and pumps
- Encouraging hot debriefs after all events
- Working regionally to develop shared expectations and capability
- Embed monitoring and accountability

Context for emergency response

Emergency management responsibilities

Under the New Zealand emergency management system emergency events requiring a significant and coordinated response should be:

- **Locally led,** i.e., NCC,
- **Regionally coordinated**, i.e., Hawke's Bay Civil Defence Emergency Group (Group), and
- **Centrally supported**, i.e., National Emergency Management Agency (NEMA) and other central government agencies.

As well as managing its own internal organisational response, NCC has obligations as a local authority under Section 64 Civil Defence Emergency Management Act 2002. These obligations are as follows:

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64   Duties of local authorities

(1)   A local authority must plan and provide for civil defence emergency management within its district.

(2)   A local authority must ensure that it is able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency.

Section 64 Civil Defence Emergency Management Act 2002

NEMA provides various guidance on how local authorities should undertake their obligation (see civildefence.govt.nz/cdem-sector/guidelines/).

These include:

- Directors Guidelines to provide guidance and advice on how a function defined by legislation or national planning arrangements should be performed.
- Best Practice Guides that provide information, current best practice examples, and advice on how to carry out a range of CDEM tasks.
- Factsheets that provide a quick guide to various CDEM processes.

Regional emergency management goals and priorities are contained within Civil Defence Emergency Management Group Plans. The current Hawke's Bay Civil Defence Emergency Management Group Plan is for the period 2014-2019, although noted as updated in 2022.

What does good delivery of emergency management look like?

Emergency management in New Zealand is delivered under the "4Rs": Risk Reduction, Readiness, Response, and Recovery framework.

Risk Reduction

Identifying and analysing 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 likelihood of their occurrence to an acceptable level.

Readiness

Agencies, organisations, communities, and individuals developing operational systems and capabilities before an emergency happens. This includes planning, exercising, and testing arrangements, monitoring and evaluating capability and capacity, public education, and community engagement programmes that build resilient communities.

Response

Actions taken immediately before, during, or directly after an emergency to save lives and property and to help communities begin to recover [and] ends when the response objectives have been met or a transition to recovery has occurred.

Recovery

Involves the coordinated efforts and processes used to bring about the immediate, medium-term, and long-term holistic regeneration and enhancement of a community following an emergency.

Definitions of the 4Rs, adapted from the National CDEM Plan Guide

Despite the common responsibility for delivering the 4Rs, understanding the capability and effectiveness of different authorities to deliver across them is difficult. In practice, there are limited systems and procedures to ensure that everyone with emergency management responsibilities (at the local, regional, and national level) are adequately planning or providing for that role. There are also no clear and succinct guidelines about what 'adequate' requires.

Emergency events are often low likelihood events but can have very high consequence. Like any other risks, NCC needs to decide in partnership with key stakeholders what level of preparation is sufficient, and whether the residual risks are acceptable. Building resilience requires increasing both planned and adaptive capacity. Planned capacity relates to things that can be provided for in advance of an emergency (e.g., crisis management planning, response training, and capability building, processes, templates, dashboards, guidelines, checklists etc). Adaptive capacity relates to the ability of those people, systems, and proceses to flex and adapt as the specific event response requires.

Building resilience with planned and adaptive capability

All capability improvement efforts should be embedded within an organisation and be capable of outlasting any specific individual tenure. This is critical for ensuring emergency management capability is maintained in the future. Recommendations are written with this in mind.

Previous NCC emergency responses

A range of recommendations to improve the emergency management capability of NCC and the Group were made in a review of the 2020 Napier flood response[1.] A further review published in June 2021[2] examined "the Hawke's Bay CDEM operational response framework, and Council's roles and responsibilities". In late 2022 the Group office released a revised Hawkes Bay CDEM Group Concept of Operations. The purpose of that document was to:

"1. Outline how the networked hierarchy of the national Critical Incident Management System (CIMS) is applied to the response environment in the HBCDEM Group.

2. Give clarity of roles and responsibilities of the members of the HBCDEM Group."

Unfortunately at the time of Cyclone Gabrielle little operationalisation of the outcomes of these review processes had taken place. Many of the challenges identified from the 2020 NCC flood response arose in relation to the Cyclone Gabrielle response and are included in this report. Examples include the lack of a common operating platform (a regional issue), insufficient staff training capability, poor management of fatigue among staff, misunderstandings of emergency management structures, resources, recovery, and NCC liaison with local iwi. It was noted by NCC staff that systems and processes were developed as part of the learnings from the 2020 Napier floods, however these were either not known or not used.

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[1] Independent Operational Review - Napier Floods carried out by FENZ on behalf of the Hawke's Bay Civil Defence and Emergency Management Group Chair, n.d.

2 Contextus Solutions, Strengthening Civil Defence Emergency Management in Hawke's Bay Review of Civil Defence Emergency Management in Hawke's Bay based on Events and Lessons from 2020, June 2021.

The scale of Cyclone Gabrielle

Cyclone Gabrielle was an extreme event which not only tested the capacity of the region, but the country. The storm's close proximity to other extreme North Island weather events, and its wide-ranging impacts across multiple territorial areas, made Cyclone Gabrielle one of the largest disasters to impact New Zealand in recent times.

However, this is exactly what the emergency management system needs to be ready for, especially given the general consensus that intensity and frequency of extreme weather events are increasing as a result of a warming planet.

Is there a community mandate to invest in enhancing emergency management capability?

New Zealanders are no strangers to the various hazards, including (but not limited to) storms, earthquakes, and volcanic eruptions. Recent disasters and a growing awareness of the impacts of climate change has increased the focus on the capability of emergency management in New Zealand. This arguably provides a community mandate to invest in this area.

Since 2022, the Department of Prime Minister and Cabinet (DPMC) has commissioned an annual representative sample of New Zealanders' perceptions of national security threats (dpmc.govt.nz/sites/default/files/2023-08/FINAL%20National%20Security%20Public%20Survey%202023%20%28public%29.pdf).
This includes understanding which hazards and threats are of top concern to people. The results of the 2023 survey found that "4 in 5 New Zealanders feel the world has become a more dangerous place". For a second year running, "natural disaster" was listed as the top perceived threat that could impact New Zealand both in the immediate future (in the next 12 months) and the near future (in the next 10 years).

These findings illustrate a strong community awareness around the risk of disasters and, therefore, emphasise the need for adequate emergency preparedness (although whether this creates an understanding of the investment necessary is not covered by the DPMC survey).

TOP-10 HAZARDS AND THREATS – NEXT 12 MONTHS

Natural disasters & organised crime between New Zealand & another country are the top-2 most commonly perceived threats ('somewhat + very real') likely to occur in the next 12 months. The degree to which New Zealanders see these as likely has statistically significantly increased since 2022.

Real threat of any of the following happening in the next 12 months…

#	Threat	2022 position	#	Threat	2022 position
1	Natural disaster	1	6	Health epidemic	4
2	Organised crime between NZ & another country	5	7	Breakdown in access to goods / services due to rising tensions	new
3	Hacking into information systems	3	8	Breakdown in national infrastructure due to an attack	9
4	*Disinformation	2	9	Terrorist attack / violent extremism in NZ	8
5	Nuclear / biological / chemical attack somewhere in the world	7	10	Emerging technology (e.g., deep fakes, autonomous weapons)	10

DPMC National Security Survey 2023

NCC's emergency response to Cyclone Gabrielle

This section outlines key response areas emerging as themes from the interviews, workshops, and document review we undertook. We outline:

- what went well?
- what should be improved?
- what must be improved?

The necessary actions required to embed the good and improve on other areas are then covered in the recommendations section. The recommendations do not necessarily link one-to-one to the identified themes in this section as many of the recommendations address multiple areas covered in the response summary.

What went well?

Dedicated individuals

Among those interviewed for this report, there was a strong sense of appreciation for the level of NCC staff response efforts. Staff spoke highly of many going far above and beyond what was expected and/or required of them with the common goal of helping each other and the community in a time of desperate need. The notions of "camaraderie" and being "proud" of staff efforts were emphasised.

Controller appointments

The rebuilding of NCC's emergency management capability started in 2022 with the appointment of four controllers, training for three of them, and their working together to improve capability across five key areas. These key areas were:

- pre-identification of suitable (EOC) staff,
- EM training,
- EOC equipment,
- primary and alternate EOC locations,
- stakeholder engagement.

This team's work was an essential element to the overall success of NCC's response to Cyclone Gabrielle.

Pre-event monitoring and EOC activation

There was effective monitoring of Cyclone Gabrielle by NCC in the lead-up to the storm. A coordination team was activated the weekend prior to the cyclone's impact to be ready to manage impacts. The NCC City Services (Depot) mobilised their well-developed heavy rain response plans.

Responsiveness of the local marae

The amazing responsiveness of Pukemokimoki marae cannot be understated. Their incredible manaakitanga served as a critical component of supporting the local community in the immediate response.

Visibility of Napier's mayor

Many sang praises for the mayor, for her visibility and front-footing of communications during the response. There was widespread respect for the mayor's mahi in leading the community through this difficult time.

Cross-boundary support

Emergencies do not stop at local or regional boundaries. NCC demonstrated this through their approach to supporting communities in need, regardless of their territorial boundary. This approach helped to create a clear unity of purpose that the community is at the heart of an emergency response.

Surge support

Surge support was primarily provided by NEMA and other regions. Most of these additional support personnel in the EOC were helpful for NCC's response capacity, however it was noted that the consistency of capability among those deployed sometimes proved to be an issue.

What should be improved?

Continuity and consistency across EOC shifts

Systems, processes, and sometimes decisions, were subject to change between shifts. This resulted in staff finding it difficult to gain confidence and efficiency in their actions and contributed to difficulties in the response transitioning from reactive to proactive actions.

Physical EOC location

NCC lacked an appropriate EOC location for responding to Cyclone Gabrielle with relocation required mid-response when power was lost. Although achieved very swiftly, the necessity of moving operations from Cape View to the Post Office is far from optimal and while great adaptability was shown in setting up the venue, there were significant shortcomings in the functionality of the space.

Clarity over roles and responsibilities

The lack of role clarity was a major cause of stress for those both directly and partially involved in the response. This is wide-ranging encompassing those on the periphery, the executive leadership team (ELT), and the governance team.

Significant numbers of staff were unclear on the council's roles and responsibilities in emergency management. Many referred to CDEM as somebody or something else. While many staff went above and beyond any reasonable expectation to make it in to help, there is a perception from some staff that others who could have, did not. For those with little to no awareness of Napier CC's civil defence and emergency management responsibilities, along with initial messaging to stay home, this is understandable. It was also

noted that some staff may have felt anxious as they did not know what was expected of them or what they were supposed to be doing.

Knowledge of emergency management

Very few staff involved in NCC's response had received any training whatsoever in emergency management. Given this, staff did an amazing job to give it their all and do their best for communities. However, the result of so many people learning on the job (and in the absence of procedures, systems, and templates) was significant inefficiency, delays, duplication, extreme hours. and difficulties in becoming proactive rather than reactive. It also exposed some staff to significant risk, including to their individual wellbeing. Some staff reported high levels of anxiety and fear due to their lack of knowledge and confidence. This affected their ability to perform and make effective decisions.

Emergency management is a team sport. When a team has only one or two players with any knowledge of the rules it leaves them in an incredibly challenging position.

Key EOC roles not filled

There were a number of essential roles not adequately filled during NCC's response.

Iwi liaison is an essential role in the EOC to ensure the partnership intention under legislation. For a variety of reasons, this role was not filled appropriately during the response. Also, the safety function should be filled immediately once the widespread nature of impacts is understood. We also note that there were inadequate numbers of trained personnel to fill the essential role of response manager.

Operations structure

Efficient and effective field operations is critical for most responses, as there is an inevitable shortage of resources, increased operational risk and fatigue issues. During NCC's response, a lack of understanding of the different functions within Operations and how they work together and the resources available to them led to inefficiencies. Feedback of field intelligence appeared to be lacking especially in the initial stages of the response. Coordination and information sharing between the various roles within the Operations function, in particular between the Depot, Hawke's Bay Regional Council (regional council), and teams in the EOC were obviously challenging due to communication outages but also due to existing organisational silos and structures.

Volunteer coordination is viewed in CIMS as a sub-function of Operations. This sub-function encompasses:

> Establishing a connection with established and spontaneous volunteer and emerging groups, to ensure their efforts and contributions are effectively targeted, utilised and coordinated with the rest of the response. Key activities may include:
> - travelling to volunteer bases in the community to determine needs, goals and capabilities,
> - communicating these to Planning and other functions as required.

NCC carried out these functions partnering and co-ordinating with the many volunteer operations including for example volunteer CDCs, Mana Ahuriri, Te Taiwhenua, Bayview Hub and the Puketapu community. There may be efficiency and effectiveness gains for future responses in thinking about using the Operations sub-function structure to aid in the consistency and efficiency of these efforts, as well as the feedback loops into intelligence and planning.

Spontaneous offers from volunteers were passed to Group and Volunteer Hawke's Bay. Depending on the nature of the next event, NCC may like to consider activating their own co-ordination function for this to assist in empowering community responders.

Business continuity

Despite NCC having business continuity programmes in place prior to the impact of Cyclone Gabrielle, these programmes proved unable to provide clarity over organisational priorities during the response. This included a lack of clarity over critical functions and contingency plans. We have reviewed a selection of NCC business continuity documentation and generally find them to be too long and focused on the wrong areas (distribution lists, detailed comms action lists), and on specific scenarios rather than impacts that may arise from any scenario e.g. loss of facility, or loss of critical infrastructure. At its core, an effective business continuity plan is about planning in advance of an event around:

- how long the organisation can go without specific processes/activities/services before their outage creates an intolerable risk to the organisation (including to its reputation). In BC jargon, this is known as the maximum tolerable period of disruption (MTPD).
- Understanding what resources (people, ICT, equipment) are required to undertake the activities determined as critical – those with a low MTPD.
- Creating a Plan B for how to undertake the process/service/activity if any of those resources are absent.

An effective BC programme also aids in the identification of EOC response staff by identifying which organisational functions are priorities and what are their minimum staffing levels i.e. which staff need to be left in the organisation to perform urgent organisational functions. Further information about Business Continuity is provided in the recommendations section.

Expectations of Hawke's Bay Group Emergency Management

NCC staff expressed disappointment and frustration with a perceived lack of support and coordination from the Emergency Management Group Office, in contrast to their expectations. There was a significant gap between the response role of Group Office that staff thought would be provided and the actual capacity of Group Office to coordinate and support NCC in their response effort. The concept of locally led and regionally coordinated was not necessarily well understood by the many staff working in response with no prior training.

Communications (PIM function) resourcing

Communications in this event was incredibly challenging. This is the first major emergency event in New Zealand to my knowledge that has resulted in a widespread loss of communications. NCC did have two forms of backup communications, a Starlink satellite system, but this did not work, and a HBCDEM radio given to the EOC that worked but there was no response from the Group end. These are issues that pre-planning and testing can rectify.

The airport was well utilised by those in the know, with a recorded 3000 users connected to their Wi-Fi at one point, and every power point in use.

The essence of PIM is about (with thanks to Michele Poole)

> Getting the right information
> to the right people
> at the right time
> via the right channels and methods
> using the right spokespeople and
> in the right language.

There were many issues for the PIM team in trying to follow this:

- Getting the right information was hindered by the chaotic nature of the response especially in the initial days.
- Getting to the right people relied on communication channels not available to most in this event. This required a level of innovation that was challenging given the small team and nature of the response.

There were also many successes:

- The extensive work done by the mayor (the risk spokesperson).
- The development of a printed leaflet.
- Use of local radio station connections (although this may be enhanced by prior community readiness work making clear which sources will be used for local information).

Internal communications

Staff contact information was not up to date.

Infrastructure

Infrastructure resilience is a key issue across New Zealand and a very challenging area to address. The efforts of the depot and infrastructure team to source generators and fuel and shift generators around pump stations, working with the regional council, saved Napier from more severe direct flooding damage. Despite the challenges in this space, this 'near-miss' does require review of the acceptability of back-up arrangements for pumps and for communications.

What must be improved?

Staff working conditions

While acknowledging the significance of the response effort and resource required, NCC must strive to ensure appropriate and safe working conditions for staff. This is imperative both for the short-term response, but also in the long-term in relation to staff wellbeing and retention.

Safe and appropriate working conditions were an issue across multiple areas of response. This includes those working in civil defence centres (CDCs), or evacuation centres. For example, staff (particularly female staff) spoke of being stationed at CDCs overnight without appropriate security or procedures in place to ensure their safety, and with no prior training in welfare.

In addition, the length of time staff worked across all response areas (i.e., NCC depot, EOC, CDCs) was not only unsustainable, but also unsafe. This included the extensive hours worked per day and the number of days worked consistently in a row. Recommendations in this report to address these issues include welfare pre-planning, standing up of the safety function early in response, and the investment in training and capability – people will go home if they are confident of a response under control and with an incoming shift of trained personnel.

Disaster de-contamination management (Awatoto)

The issues surrounding the flooding impacts and contamination concerns in Awatoto were some of the most significant stressors for many participants in NCC's response. The issues around contamination at Awatoto involved serious decisions with potential life safety impacts and involved complexity far beyond any reasonable expectation of knowledge within a local government authority. In particular there was a lack of clarity around who was responsible for decision making and the delays caused by attempting to navigate these questions both internally and with external agencies. Some staff involved in the various aspects of this response felt very unsupported and became the public punching bags for decisions they did not support. This was tough work, and significantly affected individuals' recovery from the response efforts.

Understanding how this may have been done better, or at least with significantly less angst is outside the scope of this report, as it requires engagement with the multiple agencies involved, most particularly Te Whatu Ora, WorkSafe, NEMA, Fire and Emergency NZ (FENZ), NZ Police, Hawke's Bay Regional Council, and the Ministry for the Environment.

Welfare arrangements

As is often the case, welfare was one of the most significant activities in this response and was initially a community driven activity. Communities did exactly what we need them do, evacuate to what they perceived to be safe locations, in many cases directed by the police. NCC was slow to gain situational awareness of these locations and to mobilise resources to assist. This was a result of both the event impacts, specifically the loss of effective communications and lack of direct liaison with emergency services, as well as a lack of preparation around welfare arrangements.

Incredibly dedicated staff operated way out of their depth in setting up Centennial Hall, without any training or guidance. Staff at CDCs were truly at the coalface of diverse community needs and deserved greater preparation, systems, and processes to support them.

The lack of preparation for welfare also resulted in well-intentioned but not always efficient spending.

Recommendations

Response capability training

Emergency situations are often chaotic, complex, and rapidly evolving. The Coordinated Incident Management System (CIMS) structure has been developed and evolved over time to provide the necessary system, tools, and shared language to assist in coordinated incident responses. The CIMS framework is not meant to be a prescription of how things must be done but an aid to doing the right things and a structure that enables this.

An understanding of the rationale for CIMS, the structure, processes, and key tools is generally viewed as a pre-requisite for participation in an EOC. The majority of the NCC team did not have practice in operating in this context. While they worked incredibly hard, this created a steep learning curve which slowed effective performance.

As a first priority training needs to be undertaken by those identified as having a role in emergency response. CIMS training is often opt-in and taken up by staff who may not have a clearly designated emergency response role. Whilst this is still useful for providing surge capacity and providing a broader understanding of how emergencies are managed, it should not be the first priority.

Future efforts need to be more nuanced than just 'we need training'. The diagram below illustrates the broad levels of training available for emergency management personnel while the following page sets out the suggested minimum, moderate, optimal numbers, and levels of training to be achieved. Whether to aspire to minimum, moderate or optimal is a risk assessment decision based on the hazard profile of the region and the risk tolerance of NCC, as well as its partner response agencies.

Note that training in emergency management is an evolving space with significant gaps in available training currently under review by the National Emergency Management Agency.
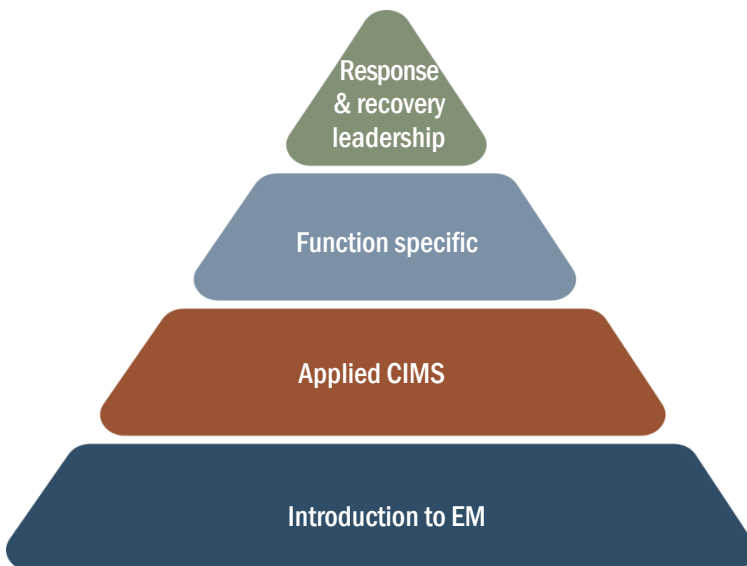
Levels of emergency management training available

Recommended levels of staffing and training for emergency management roles

EM OPERATING LEVEL	NUMBER OF STAFF REQUIRED			TRAINING LEVEL	RATIONALE
	MINIMUM	MODERATE	OPTIMAL		
Controller	4	6	8	*EM specific:* RRANZ Tier One* *General:* Generic Management/ Leadership	As was experienced during Cyclone Gabrielle, 4 controllers is sufficient only for 4 days of intense 24/7 response. Numbers also need to account for illness, leave and staff turnover. 6 controllers would also allow for 3*8 hour shift patterns which are maintainable over a longer period of time. 8 would allow for any 2 to be ill or away and then rotating A, B, C team patterns if the event is of a long duration.
Response Manager	4	6	8	*EM specific*: RRANZ Tier One* *General:* Generic management/ leadership	Response managers play a critical role in the day-to-day management of the EOC, enabling controllers to think strategically, coordinate and communicate across and up, and helping to ensure appropriate operational rhythms within the EOC that leave all best placed to achieve response aims.
Recovery Manager	4	6	8	*EM specific*: RRANZ Tier One* *General:* Generic management/ leadership	Recovery starts in response. As noted in the 2020 flood review, it is vital that the IMT contains someone with a recovery lens as soon as it is activated.
Function Leads: • **Intel** • **Planning** • **Welfare** • **Operations** • **Logistics** • **PIM** • **Safety**** • **Iwi liaison****	4 per function *(32 across the 8 functions)*	6 per function *(48 across the 8 functions)*	8 per function *(64 across the 8 functions)*	*EM specific:* Function-specific national training package or CDEM-run ITF course *General:* Generic team leadership	Emergency Management is a team sport. A high functioning IMT comprises the controller and function leads, working together to achieve an effective response. A clear understanding of the core responsibilities of each function and how they all work together is essential to achieve an effective response.

Function Staff	2 per function *(16 across 8 functions)*	4 per function *(32 across the 8 functions)*	48 per function *(42 across the 8 functions)*	Function-specific national training package or CDEM-run ITF course	The more staff in a function with training and systems in place, the easier the integration of untrained staff will be. Therefore, these numbers are lower than the numbers actually working in a major response.
Additional function staff	As many as possible			Applied CIMS	
All staff	All – as part of induction package			Introduction to Emergency Management, For example, Integrated Training Framework Online Foundation Course***, or create a specific Napier 20-minute induction video. *+ Information on Personal Preparedness*	A base overview of knowledge about NCC emergency management responsibilities is ideal to help empower confidence in those without any other training who find themselves in response roles. + an opportunity to build personal preparedness so that people can get back to work knowing their families are sorted.

*currently the only nationwide response and recovery management development programme available

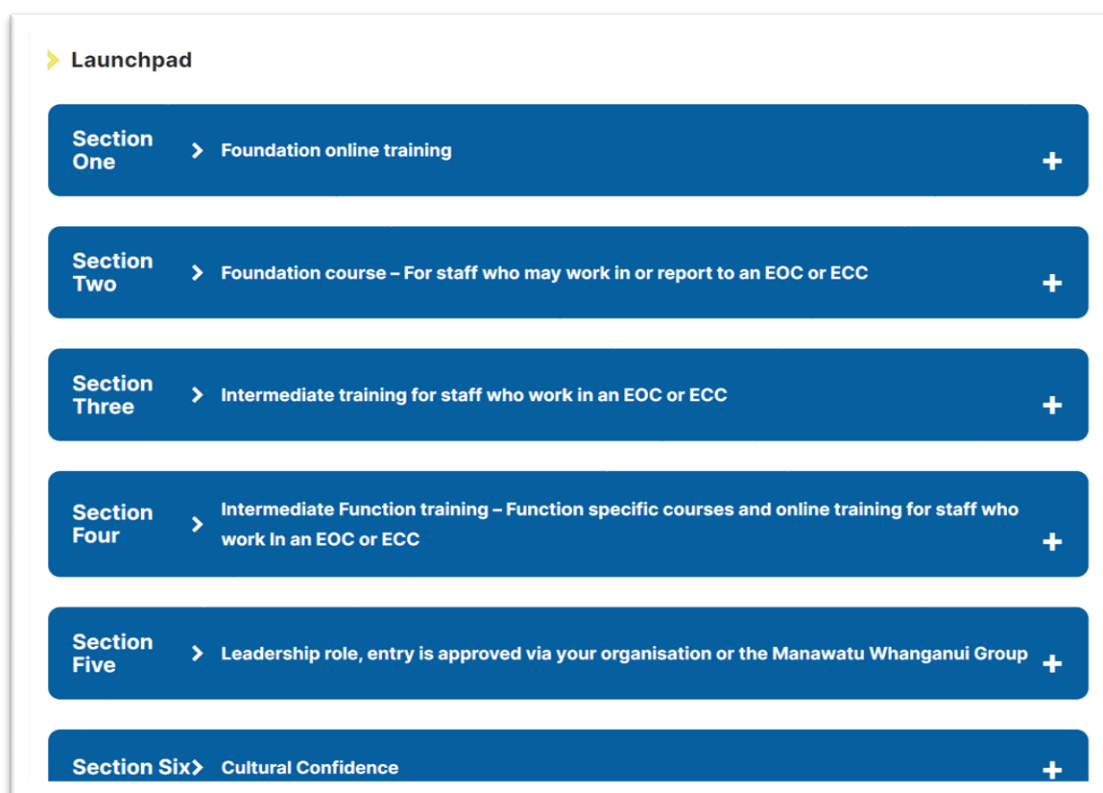** I am unaware of any current training packages for safety or iwi liaison roles

*** Freely available to anyone via Takatu – the National Emergency Management System learning management system which is accessed via a RealMe login (no other registration required)

We appreciate that these numbers may be daunting. This is a decision about risk tolerance and the community's expectations around effective emergency management response. Achieving the minimum numbers will make an enormous difference for effectiveness and efficiency and will get NCC through a 4-day major response. Additional considerations to feed into training investment decisions include the benefits for overall staff retention generated by providing training opportunities, and the confidence in the future direction of NCC. There is an enormous current appetite from all staff involved in this review to undertake training, and a need to communicate what decisions are taken to maintain staff confidence.

Takatu

Takatu can be used by NCC to provide training pathways for staff – see below as an example of its use to provide a training pathway in the Manawatu – Whanganui region.

Example of training pathway in Takatu

> Launchpad

| Section One | > Foundation online training | + |

| Section Two | > Foundation course – For staff who may work in or report to an EOC or ECC | + |

| Section Three | > Intermediate training for staff who work in an EOC or ECC | + |

| Section Four | > Intermediate Function training – Function specific courses and online training for staff who work In an EOC or ECC | + |

| Section Five | > Leadership role, entry is approved via your organisation or the Manawatu Whanganui Group | + |

| Section Six | > Cultural Confidence | + |

Response systems, processes, and templates

Training alone is not sufficient. Trained staff also need to be given the time to create (and importantly institutionalise) the knowledge gained from training into a shared platform for templates, processes and base plans. Ideally those with a function lead responsibility need to be given license – even if this is just half a day each month, to build up the EM platform for NCC. This could be as simple as a Teams site, where the designated function leads collaborate to agree what is needed readily at hand to respond effectively. The biggest load here is on the Welfare function which is covered in a section below. It is important that a shared platform of 'how' things get done involves collaboration across function leads to ensure that changes of shift do not reinvent existing processes. The more that can be made routine – the more thinking space response staff have to get proactive in response activities.

EOC activation

A suitable EOC needs to be pre-identified and resourced appropriately. Don't let perfect get in the way of having something. Consideration should also be given to ensuring separate space for Mayor and elected members to congregate. Council crisis management team should be located separately. As part of this, secondary communications for the depot along with the EOC should also be considered critical

Activation of an EOC should also activate an agreed back-filling response. Key EOC position holders must have arrangements in place for BAU key responsibilities to be managed. Response is incredibly draining and requires significant recovery time. This can only be enabled by others stepping up to manage some of the workload. Maintaining this capability of 2ICs also has an enormous resilience benefit for the organisation (noting that there are other reasons why the person in charge may not be able to work).

Activation arrangements need to remain flexible while also making it clear who is and is not required to take a CDEM response role and to perform essential organisational functions. Messaging and communications need to be clear.
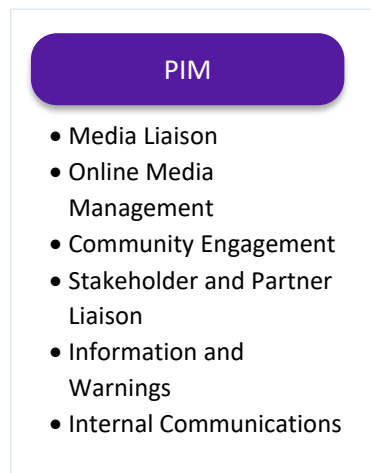
It may also be useful to work with Police to pre-arrange and supply staff with sufficient documentation to be able to access essential service travel corridors e.g. get through cordons.

Personal preparedness

A key part to readiness for activation is helping staff to understand personal preparedness. Internal promotion of resources such as: https://www.hbemergency.govt.nz/get-ready/get-ready-home/ may be helpful.

Communications

The communications team potentially needed more resources. The CIMS sub-function structure shown on the right is for illustrative purposes to show how those resources may be arranged. It is important to note that many of these sub-functions may require multiple people, for example the stakeholder and partner liaison in this event may have required people to physically visit multiple EOCs and given the extensive media work done by the mayor, this would have benefited from a dedicated resource.

PIM

- Media Liaison
- Online Media Management
- Community Engagement
- Stakeholder and Partner Liaison
- Information and Warnings
- Internal Communications

CIMS Third Edition

External communications

Possibilities to consider as part of SOPs for future events include:

- Use of the iSite to post whiteboards or printed updates from
- the EOC printers – accessible to both tourists and locals.
- Creation of a community available internet hotspot, using a designated Starlink – being able to get information to communities may have helped to ease some of the tensions felt towards the end of that first week.
- use of local radio to repeat rolling Napier specific update information on the hour.

While we note that all of these required time and logistics, and were not necessarily easy, they could have made a significant difference to the community's sense of wellbeing.

Internal communications

A readily accessible means of communicating urgently with most staff is essential. Other potential emergency scenarios such as acts of aggression requiring lockdown/shelter in place would require rapid communication.

Welfare

External

> "Delivering welfare services to individuals, families/whānau, and communities affected by emergencies is fundamental to effective emergency management. Robust welfare services arrangements need to be in place for all communities to support people in preparing for, responding to, and recovering from emergencies."
>
> Directors Guidelines, Welfare Services in an Emergency, 2015
> civildefence.govt.nz/cdem-sector/guidelines/welfare-services-in-an-emergency/

It should not matter who 'set up' a facility. The aim of the welfare function is to "support people in the safest location possible. This may be in their home, workplace, holiday accommodation, emergency shelter, or emergency or temporary accommodation". Volunteer setup is exactly what is needed in self-reliant communities. While there may be a transition over time to facilities judged to be more suitable or effective, support should still be provided to 'volunteer setups'.

The guiding principles for welfare are defined in clause 64 of the *National CDEM Plan 2015*.

The principles applying to the delivery of welfare services are to—

(a) recognise the diverse and dynamic nature of communities; and
(b) strengthen self-reliance as the foundation for individual and family and whānau and community resilience; and
(c) ensure that emergency welfare services address the specific welfare needs of individuals, families and whānau, and communities; and
(d) ensure flexibility in the services provided and how they are best delivered; and
(e) integrate and align with local arrangements and existing welfare networks.

Directors Guidelines, Welfare Services in an Emergency, 2015

Core principles of welfare to be considered in future planning are flexibility, integration, and self-reliance.

Welfare is not the sole responsibility of NCC. As noted in the principles, integration and alignment with existing networks is crucial for a smooth operation. Understanding who is likely to do what and working with them pre-event is a critical step to understanding what NCC needs to do. This includes developing a better understanding of local NGO capabilities and expectations of response arrangements e.g. the Red Cross, Kings Church, and discussions with, rather than assumptions, as to how best to support the marae who has stated that 'they will stand up for their communities, regardless of what NCC is doing'.

It was also noted that tourists are a key group who are often ill considered in response arrangements. Credit needs to be given to the Chief Executive of Hawke's Bay Tourism who helped tourists and tourism providers to navigate the situation. Having this role as part of the EOC structure may be beneficial in a very major response.

There should be a SOP for setting up a welfare centre – there are numerous guidance documents available on the NEMA website. Staff were put in unsafe positions with no training, no guidance and often no idea when help might be coming. Working in welfare is not for all – pre-identification processes need to consider suitability.

Welfare is often a large function, and its space requirements need to be considered in EOC site selection.

Internal

Key staff worked incredibly long hours across multiple days. NCC's efforts to support staff in very challenging circumstances was acknowledged, for example a psychologist in a corner office. It can be challenging to get people to seek support and we suggest that visible role modelling of visits to them by senior members may be useful in the future e.g. controllers or executives announcing that they will be away at 3pm because they have a session with the counsellor.

Providing good kai in the EOC was well done, however it is not so clear as to what was provided at the depot. Celebrations are critical to maintain morale but need to be carefully thought through in terms of inclusivity and impressions on those working at other locations.

Internal welfare is an incredibly challenging area in a disaster of this nature. The most important way to mitigate staff wellbeing issues for the future lies with capability building to reduce staff anxiety around what they need to do, and to enable them to leave having handing over to trusted replacements.

There also needs to be acknowledgement that all the community including NCC staff are recovering from a significant event and that all will do this in various ways. Managers in BAU need to be cognisant of the very long tail of recovery and that this may look different for each staff member. Some priorities may need to shift to allow staff to recover. Many respondents reported feeling the 'December' feeling – worn out and in need of a break longer than that taken post response.

There are many resources freely available developed post Christchurch earthquake. Here is a selection of my personal favourites:

allright.org.nz/free-resources/he-waka-eke-noa-posters

Roles and responsibilities

Role clarity helps all responding to 'stay in their lane', focus on the overwhelming number of tasks and achieve more together as a team. Missing elements that could have helped NCC to achieve this were a crisis management response plan, and briefings and or guides for elected members.

There is no doubt that leaders at all levels within the council worked extremely hard in what was a novel and challenging situation. The lack of clear delineation between the outward response focused EOC, and an internal NCC crisis management leadership team, and pre-briefings as to the role of governance made this more challenging.

Senior leaders intuitively took on key activities that would be listed in a crisis management plan e.g. attending to NCC staff whereabouts and wellbeing and assessing re-activation of core NCC activities. However, this may have occurred sooner with clearly understood roles and responsibilities laid out in a crisis management plan. Reproduced with permission from Palmerston North City Council, the excerpt below illustrates where crisis management fits into disruption readiness.

Napier would benefit from the clear roles and responsibilities provided by a crisis management plan to complement its CDEM arrangements.

Prior to the event, governance had received no guidance on their roles and responsibilities in an emergency event. This should be standard practice after every local body election.

There are numerous resources that can be adapted for Napier:

1. NEMA resources for elected officials (civildefence.govt.nz/resources/resources-for-elected-officials/)
2. Canterbury Civil Defence Emergency Management Group short guide for elected members (cdemcanterbury.govt.nz/media/wihjslkt/canterbury-cdem-elected-representatives-guide-2022-11-print.pdf)

Conversations around elected members roles in an emergency event should ideally involve controllers and ELT to ensure an across-the-board mutual understanding of roles and responsibilities. Elected members have a core role in emergency response, both in a governance role and as community connectors.

Operations function

It might be useful to create a specific CIMS sub function structure for operations to help with clarity, tasking, and resource management. CIMS is flexible and scalable and intended to be customised in this way noting the importance also of span of control. A suitable CIMS sub-function structure should seek to break any existing organisational silos in emergency operations.

As noted in the findings, volunteer co-ordination is envisaged within CIMS to be a sub-function within Operations. This encompasses extensive work done in this response but provides structure to ensure the feedback loops into Planning and Intelligence.

Lifelines Utility Coordinators are also a key sub-function within Operations. While NCC had someone in this role, they were not formally in the response structure, but operating as an Operations sub-function dealing with Transport and Lifelines Coordination. They effectively got around the lack of a clear role in the system by standing around the EOC to get information.

As water reforms become operational, it is also critical that plans, responsibilities, and liaison links are jointly understood between councils and the new water entity.

Business continuity planning

The outcome of effective business continuity programme should be:

An effective business continuity programme will ensure that:	⚠ Key risks to continuity are identified and managed.
	⚙ The necessary resources and actions to implement contingency plans are in place, and the resources, processes and personnel required have been identified.

To achieve this, NCC should maintain up to date and well socialised plans detailing, for every function at council, the following information:

- Core activities or processes.
- Maximum tolerable periods of disruption for each core activity (the point at which escalation is needed if this function is not continued).
- Key resources required to continue the activity.
- Work-around procedures for core activities with short tolerable periods of disruption.

These plans should be reviewed for accuracy at least six monthly and any critical work-around or restoration procedures tested at least annually. An example of the core content is below.

Business Continuity Lead: Head of Building Services or appropriate delegate

Critical Functions and Plan Bs

Function	Maximum Tolerable Downtime	Key Inputs			Mitigation or Contingency Plans *Work-around options are only required for functions with a time criticality of less than one week, or where clear actions are needed in advance of an event to enable adaptation to a long running disruption*
		Digital	People (min Req/max avail)	Other	
Building Consents: - Processing - Enquiries - Inspections	5 days (applications) 2 days (inspections)	Priorities: AlphaOne StandardsOnline Desirable: Promap ArcGIS Trapeze Oasis Ozone Office365	4/20 2 admin 2 technical 6 are compliance (WOF and swimming pools)	Laptops Phones Vehicles (10) Measurers Ground Prodders Moisture Metres Thermometers Gauges Digital Levels Equipment stored within each BC car and each car is parked in different locations	*20 working day regulatory requirement. This could be relaxed in a community wide disruption but poses a risk to reputation if PNCC only disruption.* Hard copy forms to be kept in case of Alpha One outage and temporary reversion to paper operations. Hard copies of Standards kept. Processing/Inspection staff cross-training initiatives to be maintained. Mutual Aid principles across neighbouring councils in place in the event of resource shortages. If disrupted: PRIORITISE INSPECTIONS. Processing and enquiries can wait.

We reviewed a selection of NCC business continuity documentation and generally found them to be over-long and focused on the wrong areas (distribution lists, detailed comms action lists), and on specific scenarios rather than impacts that may arise from any scenario e.g. loss of facility, loss of critical infrastructure.

An effective business continuity programme would have left each Executive member with a clearer starting point around priority resumptions, for example, simple tables as follows:

People and Performance Function Summary: functions with less than 1 week criticality
Reprinted with permission from Palmerston North City Council

SUBFUNCTION	MAXIMUM TOLERABLE PERIOD OF DISRUPTION	BELONGS TO
H&S Investigations	1 hour	Health and Safety
H&S Advisory	2 days	Health and Safety
Monitoring and rectifying ICT performance	1 hour	IT
Backup monitoring	8 hours	IT
IT Service Desk	1 hour	IT
IT Updates and Patches	1 week	IT
Payroll	1 day	People and Performance
Employment Relations	1 day	People and Performance

Whilst the impacts of Gabrielle were so severe that these tolerances for disruption would likely have been exceeded, this kind of summary information provides a starting point for the review and adaptive measures then needed. Underlying this table is a table per sub-function detailing the minimum resources needed to continue the function.

While a business continuity plan may include particular action steps for resumption, this is not where its most value lies. The fundamental outcome of the plan is to ensure that critical activities can be resumed, for example the mitigation plan in the example above around keeping printed copies of forms. Effective business continuity would assist the crisis management team to prioritise and shift resources to areas as needed. It would answer questions like:

- How long can the aquarium go without power?
- How are we paying staff if our IT system goes down?
- Which software systems need to be restored first if we are cyber-attacked?

Iwi liaison

Iwi representation in the NCC is a key part of partnership in emergency management. This requires adequate resourcing (the same as any other function) along with a clearer understanding from all involved as to how the intention of partnership is operationalised.

According to CIMS, this is what is envisaged.

> "Iwi/Māori representation provides cultural advice to the Controller and ensures iwi/ Māori interests are represented. Being part of the IMT, the representation also ensures that connections to the various functions are established and maintained, iwi and Māori media channels are informed about the response objectives and progress, and that the welfare of the wider Māori community and whānau is captured in response planning. When more than one iwi

> is involved, representation from all iwi should be Page 41 CIMS 3rd Edition August 2019 accommodated to ensure a consistent and shared cultural consideration. The nature of representation will vary from region to region and should be determined by the Controller, working with local iwi/ Māori to ensure appropriate mandates. Iwi/Māori representation should understand local resources that might be able to be mobilised, ensure interactions with and between iwi/Māori networks are managed appropriately, and provide advice on tikanga and local topography e.g. wāhi tapu."

(CIMS, Third edition)

Part of operationalisation is understanding that key staff members, like any other response personnel, will need to ensure that their personal situations are taken care of before they can respond. For Māori, their obligations in the community may be intense. A situation needs to be created where representatives feel that their voice in the coordination centre is adding more value to their communities than their presence elsewhere.

Iwi liaison need an assigned desk, an assigned vest, and need to be understood to be part of the IMT as a whole, with interaction with control and all functions. A well understood and properly resourced Iwi liaison function provides the one point of contact expressed as a desire by key marae.

The issue of vests is a national one. If vests denote a sense of who you are, what you are doing and that you are core to the response, iwi liaison need to also have a vest.

Safety function

The safety function should be activated as a standard part of response. This functions core responsibilities are show below. Given the lack of preparedness the safety function may not have been able to significantly reduce some of the risks faced by staff in this response. However, in future responses, they should act as an enabler of simple risk mitigations to ensure that risks to staff are adequately balanced with the response needs.

RESPONSIBILITIES INCLUDE

- Support the Controller to ensure that all those involved in the response are kept safe in accordance with the requirements of the Health and Safety at Work Act 2015

- Ensure the Controller and wider IMT are informed of the Safety aspects of the response

- Provision of Safety advice and recommendations to support SitReps, Action Plans, and the response in general

- Provision of a process and guidance for identification and management of risks

- Monitoring and review of safety, health, and wellbeing information

- Monitoring and verification of Health and Safety practices across the response, assuring they are embedded in each function's activities and processes

- Oversight of fatigue management across the response

- Provision of coordination, direction, support, and/or mentoring to incident level Safety leads

Local level CIMS Safety Role Card

Disaster de-contamination

The issues surrounding Awatoto were one of the most significant stressors for many participants in response. Particularly noted was the lack of clarity around who was responsible for decision making and the delays caused by attempting to navigate these questions both internally and with external agencies. Understanding how this may have been done better, or at least with significantly less angst, is outside the scope of this report, as it requires engagement with the multiple agencies involved, most particularly Te Whatu Ora, WorkSafe, NEMA, Fire and Emergency NZ (FENZ), NZ Police, Hawke's Bay Regional Council, and the Ministry for the Environment. I suggest this should be followed up as part of the group or national action list to provide guidance for future situations.

We will likely have floodwater through industrial sites again in the future, and similar issues are likely to arise in any tsunami. It would be very helpful to local controllers facing a situation like this in the future if basic decision flow charts and or SOPs could be developed, which give clear indications of agency roles and responsibilities. This should be completed at a national level. I will continue to discuss this issue with connections in the broader emergency management community to advocate for national level attention to these issues.

Infrastructure

The efforts of the depot and infrastructure team to source generators and fuel and shift generators around pump stations, working with the regional council, saved Napier from more severe direct flooding damage. Discussions around whether the level of resilience investment in alternative power sources for a city reliant on pumping seem appropriate. Consideration of how the depot integrates into response is discussed in the Operations section. Additionally, back-up communications systems and processes require review.

Debriefs

For some staff, this debrief was the first opportunity to share their experiences in a structured way following the event. It is recommended that teams are encouraged to conduct 'hot debriefs' following any event.

For many staff, debriefs are cathartic – a way of processing what are often high stress events as well capturing improvement opportunities.

Regional coordination

A concept of operations documentation was signed off by the Chief Executives Group (CEG) in late 2022 but was in the process of being operationalised when Gabrielle hit. Similarly, to NCC's position, plans were underway to improve capability and readiness but with the benefit of hindsight, they were too little and too slow.

Group were unable to provide the coordination that may have been expected, with the ECC being perceived by many as a black hole. This was not through any lack of desire or recognition of NCC's needs but because of limited staff, limited preparation, and processes, and an inability to get beyond Group's priority number one of supporting isolated communities around the region. A separate review into the regional response is underway.

NCC staff noted that in the absence of that clear regional coordination, embedding staff into other responding agencies was very effective, for example into the FENZ base. This could be considered earlier if these same circumstances were faced. Continuing to work effectively with the group office to build region wide capability is essential for the future. This includes consideration of platforms and systems that allow for greater understandings of the situation and who is doing what.

Monitoring and accountability

We suggest the work programme from this report and other internal work in progress is set up as a continuous improvement programme with KPIs reported quarterly to councillors. This will ensure organisational level ownership of residual risks deriving from capacity and capability gaps.

Conclusion

This is not intended to be an exhaustive list of recommendations, but a key starting point for building capability before the next event. Maturity in crisis management, emergency management, and business continuity happens over years. Building maturity must include the testing of arrangements through exercises and scenarios to both maintain the knowledge of arrangements and to enhance and refine them.

Appendix One: Emergency management glossary

EOC - EMERGENCY OPERATIONS CENTRE

An Emergency Operations Centre (EOC) is a Coordination Centre that operates at the local level to manage a response.

ECC – EMERGENCY CO-ORDINATION CENTRE

An Emergency Coordination Centre (ECC) is a Coordination Centre that operates at the CDEM Group or regional level to coordinate and support one or more activated EOCs.

NCC - NATIONAL COORDINATION CENTRE

A national level Coordination Centre that coordinates a national response and provides support to regional level response activities.

NCMC - NATIONAL CRISIS MANAGEMENT CENTRE

The National Crisis Management Centre is a secure, all-of government coordination centre used by agencies to monitor, support or manage a response at the national level. It can also be used as a National Coordination Centre.

CDEM - CIVIL DEFENCE EMERGENCY MANAGEMENT

The activities that guard against, prevent, or overcome any hazard, harm or loss that may be associated with an emergency. The Civil Defence Emergency Management Act 2002 provides a comprehensive definition of civil defence emergency management.

'GROUP' - CIVIL DEFENCE EMERGENCY MANAGEMENT GROUP (CDEM GROUP)

A group established under section 12 of the Civil Defence Emergency Management Act 2002. All local authorities must be members of a CDEM Group, and all local authorities and emergency services must have representatives on a Co-ordinating Executive Group of the CDEM Group (the CDEM Group may co-opt other people as required). CDEM Groups respond to and manage the adverse effects of emergencies in their area (from an Emergency Coordination Centre) and plan for and carry out recovery activities.

SOP – STANDARD OPERATING PROCEDURES

Describe how actions or functions are performed.

TAKATU

The national emergency management learning management system.

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