



Te Mahere a te Rōpū Ārai Mate Whawhati Tata me Te Raru Ohore me mō Tāmaki

Tāmaki Makaurau Auckland Civil Defence and Emergency Management Group Plan 2024 – 2029

Mihi

Tuia te rangi e tū nei

Tuia te papa e takoto ake

Tuia hoki rātou te iwi nui tonu kua ngaro ki te pō uriuri

He kura i tangihia

He māimai aroha

E kore rawa koutou e ngaro i te mahara.

E ngā kanohi ora o rātou mā

E ngā mana whenua

E ngā iwi e noho nie i raro i te maru

o te pai me te whai rawa o Tāmaki

Nei te ngākau ka mihi

Nei te ngākau ka tangi

tēnā tātou katoa.

Bind the tapestry of life from above

Bind the tapestry of life from below

Bind the myriads lost unto darkness of night

Let us mourn them

Our sorrows we lament for them

So they shall not be forgotten.

Let us, the living be acknowledged

To the people of the land,

all who reside in this place of plenty,

Auckland.

This warmth greets you.

This warmth yearns for you.

Greetings to all.

He Kupu Takamua nā te Kaihautū Chair's foreword



Tāmaki Makaurau Auckland's location, landscape, population and economic importance combine in unique ways to create a set of challenges for emergency management.

As elsewhere in New Zealand, Tāmaki Makaurau is exposed to numerous potential hazards, from volcanoes and storms through to drought and pandemic. Climate change is increasing the frequency and severity of severe weather events. COVID-19, the Auckland Anniversary weekend flooding, and Cyclone Gabrielle were timely reminders that significant events can strike at any time and that we must take steps to be ready.

The scale and diversity of our people, the range of environments from offshore islands to dense downtown high-rise apartments, together with the national importance of manufacturing, logistics, tourism and professional service sectors, add to the potential for complex situations to arise.

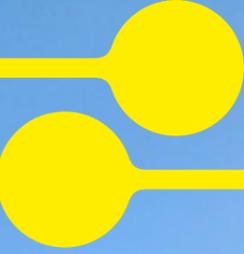
We have work to do in Auckland to better prepare ourselves to respond to, and recover from, emergencies now and in the future.

Everyone, from individuals, whānau, businesses, communities and government (both central and local), has a role to play in building resilience.

Implementation of this Group Plan will result in tangible improvements to the functioning of civil defence emergency management in Tāmaki Makaurau.

Councillor Sharon Stewart

Civil Defence Emergency
Management Committee Chairperson



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Kupu Whakataki Introduction

Te Aronga o te Mahere a te Rōpū Purpose of the Group Plan

The Group Plan sets out the strategic direction for our work on Auckland’s Civil Defence Emergency Management (CDEM) system – it outlines the CDEM vision and goals for Tāmaki Makaurau¹, how we will achieve them and how we will measure our performance.

The Group Plan is designed to be used by the CDEM Group, key partners and stakeholders involved in CDEM functions in Auckland. It also provides the public with an understanding of how these stakeholders work together, and the role they themselves can play in building individual and community resilience.

This is the fourth Group Plan for Auckland. It will remain operative for five years from the date of approval and is in force until it is revoked or replaced by the Group.

This plan has been developed in accordance with, and informed by:

- the legal requirements of sections 48-56 of the Civil Defence Emergency Management Act 2002
- CDEM Group Planning Director’s Guidelines [DGL 09/18]

- the National Disaster Resilience Strategy 2019 Ruataki ā-Motu Manawaroa Aituā
- supporting plans of Auckland Council and partners and stakeholders
- risk assessments
- international, national and local climate change and emergency management research and policy
- learnings from previous emergency responses, including independent reviews of Auckland Council’s emergency management readiness and response.

The plan was publicly notified and available for submissions as required by the Civil Defence Emergency Management Act 2002 (CDEM Act). The final plan was informed by feedback from a range of audiences including 160 individuals, 22 organisations, 21 local boards, iwi and Māori organisations, demographic advisory panels and NEMA.

The Group Plan is supported by a range of plans and procedures which provide detailed information at an operational level. These documents are reviewed periodically by the Auckland CDEM Group and key partners.

¹ We use ‘Auckland’ and ‘Tāmaki Makaurau’ interchangeably.

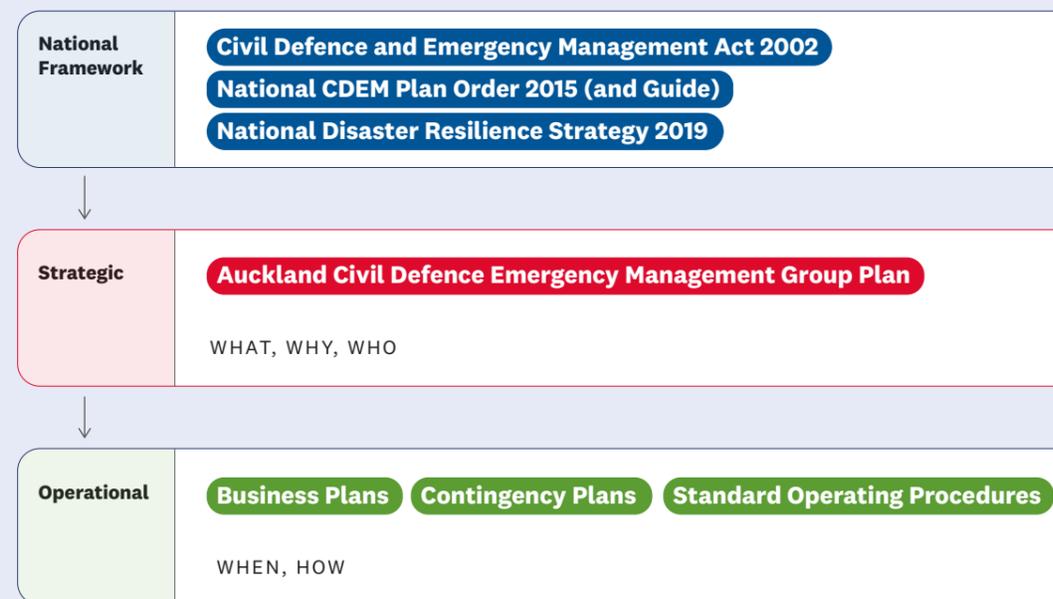


Figure 1 Emergency Management Hierarchy

Te Ārai Mate Whawhati Tata me Te Raru Ohorere (CDEM) ki Aotearoa CDEM in Aotearoa

The national framework for CDEM in Aotearoa is established under the CDEM Act. The framework provides for the effective delivery of emergency management through the roles and responsibilities of prescribed entities. These are consistent throughout the country and include:

- The National Emergency Management Agency (NEMA)
- CDEM Groups (based on local authority regions)
- CDEM Committees (comprised of representatives of local authorities within a region)
- Coordinating Executive Groups (representatives of a region’s CDEM Group and partner agencies, known as CEG)
- Statutory roles including national and local controllers and group recovery managers.

The national framework is supported by the National CDEM Plan, the National Disaster Resilience Strategy and Director’s Guidelines.

Te Rōpū o CDEM ki Tāmaki Auckland CDEM Group

Applying the national model in Tāmaki Makaurau, our CDEM entities are made up of the following:

- As Auckland Council is a unitary authority, under the CDEM Act the Auckland CDEM Group is comprised of only Auckland Council rather than being a member of the Group
- Auckland Council has established the CDEM Committee as the CDEM Group for Auckland. The CDEM Committee has governance responsibilities under the CDEM Act
- The Coordinating Executive Group (CEG) is chaired by the Chief Executive of Auckland Council, who is also a statutory member. The CEG is responsible for advising the CDEM Committee, implementing their decisions and for overseeing the implementation, monitoring and delivery of the Group Plan. CEG membership includes emergency services, health providers and lifeline utilities

- Auckland Emergency Management (AEM), led by the General Manager, is the Auckland CDEM Group Emergency Management Office (GEMO) responsible for day-to-day planning, project work and the delivery of operational arrangements on behalf of the Auckland CDEM Group and CEG. A range of agencies are responsible for managing various hazard responses and AEM can play both a lead or a support role depending on the type of hazard. AEM is the lead agency for geological hazards (e.g. earthquake, tsunami, volcano, landslide), meteorological (e.g. floods, severe wind) and infrastructure failure (e.g. large scale power outage).

Further detail on this structure and its associated roles and responsibilities is provided in **Section 9** Management and Governance.

Tā mātou horopaki ā-tiriti Our treaty context

Te Tiriti o Waitangi (the Treaty of Waitangi) provides the context for partnership between the Auckland CDEM Group and mana whenua in creating an Auckland that is resilient to disasters. The council is committed to meeting its statutory responsibilities to both mana whenua and mataawaka in Auckland. The council recognises these are distinct from the Crown’s Treaty obligations and fall within a local government Tāmaki Makaurau Auckland context. Our treaty context has informed the Group Plan, including actions designed to strengthen the council’s relationships with Māori and representation of mana whenua and mataawaka within the emergency management system.



AEM Fleet on the move

Tā mātou anga mahi whai rautaki Our strategic framework

Our mission

To strengthen the disaster resilience of Tāmaki Makaurau by managing risks and empowering and supporting everybody to be ready to respond to and recover from emergencies

Achieving our mission through the 4 Rs

Reduction

Whakaititanga

Reducing the impact of hazards on our whānau, businesses and community

Readiness

Whakareri

Having the skills, knowledge, plans, and tools before a disaster happens so we are prepared

Response

Whakarata

Taking action to ensure the safety and wellbeing of people and places

Recovery

Whakaoranga

Restoring sustainable wellbeing

Ngā Mātāpono

Our values that underpin the way we work

Manaakitanga

We support, care and respect one another so that we are best prepared in the event of an emergency

Manawaroa

We are collectively resilient and we persevere forward together

Rangatiratanga

We lead and use initiative in difficult situations to best manage events

Kotahitanga

We are united as a collective to keep ourselves and others safe

Oho

We are alert, awake and attentive to emergencies by using our five senses

Ako

We value the shared strengths, knowledges and experiences as a collective and we learn together

Our cross-cutting themes

Partnership

Honouring Te Tiriti by working in partnership with mana whenua and mātāwaka who exercise kaitiakitanga over Tāmaki Makaurau

Whanaungatanga relationships

Building resilience is a collective effort. Everyone has a role to play. Relationships are the glue that binds together our efforts across the 4Rs

Equity and inclusiveness

Emergency management in Tāmaki Makaurau reflects its superdiversity

Accountability and transparency

Progress is monitored and reported openly to keep us on track. Roles and responsibilities are understood

Figure 2 Strategic Framework

Te whakatinanatanga Implementation

We are continuously striving to improve Tāmaki Makaurau Auckland’s resilience. We do this through the achievement of objectives and actions across the 4Rs of emergency management set out in this plan. The 4 Rs include reduction and readiness (before emergencies), response (during an emergency) and recovery (after an emergency). Our objectives seek to contribute towards the objectives in the National Disaster Resilience Strategy (with the exception of NDRS objective 9 which is focused at the national level). **Appendix A** sets out linkages between the Group Plan and NDRS objectives.

We adjust our focus and priorities within each of the 4 Rs depending on changes in the risk landscape for Tāmaki Makaurau over time, what has already been put in place, and where the main needs and gaps lie. This Group Plan sets out the key actions we intend to take to improve our emergency management system over the 5-year life of this plan, reflecting our current understanding.

The actions set out in the plan are deliverable within the budget set by the current long-term plan (LTP). Details on the timescale for delivery of actions will be set out in work plans to ensure they can be adapted quickly to changing circumstances.

As Auckland Council is the Auckland CDEM Group, rather than a member of the group, this provides a significant opportunity for the council to drive change in the CDEM sector in Auckland. For each action within this plan, a lead department within the council is identified. As the Auckland CDEM GEMO, this will often be Auckland Emergency Management.

However, everyone has a role to play across the 4 Rs. Auckland Council works within a broad emergency management system. We collaborate with, and are supported by NEMA, emergency services, lifeline utilities, health providers, disability organisations, welfare services, mana whenua and mataawaka, local boards, and the communities of Tāmaki Makaurau to build disaster resilience. As **Figure 3** – The 4 Rs, Auckland Council and the emergency management system demonstrates, AEM lead in the readiness and response space, while the wider council lead in reduction. The lead for recovery depends on the scale of the recovery required. There are a range of areas where we take collaborative action across council (indicated by the central core of Figure 3). Key supporters of each action are identified within the action tables in the plan. Further information on the activities set out in Figure 3 is contained within the corresponding chapters in the plan.



Figure 3 - The 4 Rs, Auckland Council and the emergency management system

2 Ngā Taiao o Tāmaki Auckland's environments

Te Horopaki o Tāmaki Auckland in context

This section provides a summary of the social, natural, built and economic environments of Tāmaki Makaurau to set out the context for this Group Plan². CDEM considerations are summarised at the end of each 'environment' which inform our objectives and actions. An understanding of context is key to ensuring that this plan responds to the unique characteristics of Auckland.

Te Taiao ā-pāpori Social environment

Te pikinga o te taupori Population growth

Auckland's climate, geographical, cultural and historical characteristics are unique, and it has a world-wide reputation for its quality of life. In large part this is because of its outstanding natural environment, and the lifestyle opportunities it offers. These factors have driven sustained population growth over the long term and with almost 1.7 million residents, Auckland is home to over one third of the national population. The 2018 census recorded 537,525 children and young people under the age of 25 years living in Auckland (34% of the Auckland population).

In 2021, Auckland's population decreased for the first time as a result of closed international borders from the COVID 19 pandemic and increased domestic migration. Despite this recent fall, Auckland's population is expected to reach 2.3 million over the next 30 years³.

Ngā Māori o Tāmaki Makaurau Māori in Auckland

New Zealand's Māori culture and heritage is unique, and Auckland is home to the country's largest Māori population. Mana whenua are Māori with tribal links to Tāmaki Makaurau and are represented by 19 iwi.

Ngaati Whanaunga	Ngāti Paoa
Te Ahiwaru	Te Rūnanga o Ngāti Whātua
Ngāti Tamaoho	Ngāti Manuhiri
Ngāti Whātua Ōrākei	Te Kawerau ā Maki
Ngāti Maru	Ngāti Te Ata Waiohū
Te Patukirikiri	Te Uri o Hau
Ngāi Tai ki Tāmaki	Ngāti Wai ki Ngāti Rehua
Te Ākitai Waiohū	Waikato-Tainui
Ngāti Tamaterā	Ngāti Whātua o Kaipara
Ngātiwai	

Māori with tribal ancestry outside Auckland who reside in Tāmaki Makaurau are known as mataawaka. Within Auckland there are 40 marae – 22 mana whenua marae, and 18 mataawaka marae.

Thirteen per cent of Auckland's population is of Māori descent, compared to 19 percent in Aotearoa New Zealand. Thirty-one per cent of Māori in Tāmaki Makaurau are aged 0-14 years, compared to only 18 percent for the same age group belonging to all other ethnicities. Auckland Māori represent a prominent portion of Auckland's future population, workforce and creative potential.

Te kanorau whāioio o Tāmaki Makaurau

Auckland's super diversity

Auckland is a super diverse city and is home to more than 200 different ethnicities. There are over 150 languages spoken in Auckland daily, with 51 per cent of Aucklanders being multilingual. The five commonly spoken languages in Auckland other than English and te reo Māori are Samoan, Tongan, Northern Chinese (including Mandarin), Korean and Hindi⁴. 115,830 Aucklanders do not speak English.

The scale of Auckland's ethnic diversity is significant, nationally and internationally. Just over half of the usually resident population in Auckland identify as New Zealand European. Close to 40 per cent of all Aucklanders were born overseas making it more diverse than Sydney, Los Angeles or London. The dominant driver of Auckland's ethnic diversity in the last few decades has been migration from Asian countries, specifically China, India, Korea and the Philippines. Currently, the Asian population constitutes 28 per cent of Auckland's population.

Auckland is also home to a large Pasifika community which makes up 16 per cent of the population. The majority were born in New Zealand and as such are a young, multicultural and urbanised population. Pacific people play an important role in the social and economic landscape of Auckland. However, there is a persistent and growing inequality that has emerged, often more substantially impacting Pasifika communities.

Auckland's super diversity is evident in the changing religious profile of the city. Auckland is now home to sizable Hindu, Buddhist, Muslim and Sikh communities. This contributes to the diversity within ethnic communities, where identity markers also

intersect across gender, age, sexual orientation, linguistics, and length of settlement in New Zealand. Auckland also has a rich history of resettling refugees who represent people from a wide array of religious, cultural and linguistic backgrounds.

Aucklanders experience varying physical and cognitive abilities. In 2018, 5.5 per cent of the population reported activity limitations with walking, seeing, hearing, cognition, self-care or communication⁵. The Auckland regional disability rate, at 19 per cent, is lower than the national average. This is partly explained by the younger age structure of the Auckland population. Auckland has lower than average rates for hearing impairment, mobility impairment, agility impairment, psychological/psychiatric impairment and difficulties with speaking⁶. Although the rate is lower than the national average, disabled people generally experience the lowest metrics of social cohesion and equity among the population. The additional daily challenges disabled people face will impact their ability to prepare for, cope with, and recover from the effects of emergencies.

There are varying levels of social cohesion within communities. The frequency of feeling lonely or isolated varies by age and ethnicity. In some communities, family and community support networks can be strong. In contrast, a high proportion of migrants live in multi-unit apartments, often with family outside New Zealand. These communities are generally not well prepared for displacement from their homes.

The population is socio-economically diverse, with areas of high deprivation concentrated in the south and west of Auckland, and pockets of deprivation in the east. Deprivation can limit people's ability to prepare for, cope with and recover from the effects of emergencies.

⁴ stats.govt.nz/topics/language

⁵ stats.govt.nz/tools/2018-census-place-summaries/auckland-region#activity-limitations

⁶ Stats NZ. (2013). Disability survey: 2013. Retrieved from stats.govt.nz/assets/Uploads/Disability-survey/Disability-survey-2013/Disability-survey-2013-additional-documents/Disability-Survey-2013.pdf [date accessed: 24 October 2022].

Hei whakaarotanga mā CDEM CDEM considerations

- Growing cultural and linguistic diversity raises important issues for the CDEM sector regarding how to ensure effective engagement and inclusion of all Auckland residents.
- Socio-economic disparities can impact people's ability to prepare for emergency events and adapt to a changing climate.
- There are varying degrees of social cohesion in the community.
- Frequency of feeling lonely or isolated vary by age and ethnicity.
- Low levels of individual and community preparedness increase risk.
- Disasters impact everyone, but will have a greater impact on those disproportionately impacted by disasters.
- Children and young people make up over a third of the Auckland population. Their awareness and engagement in CDEM activities is important for current and future resilience.

Te takatūtanga Preparedness

Research indicates Aucklanders could be better prepared for emergencies. A study conducted in December 2022 indicates that only 63 per cent of Aucklanders feel that they are prepared for an emergency, and 52 per cent feel empowered to solve their problems together⁷.

⁷ Auckland Emergency Management. (2022, December). Customer Experience Report. Enlighten me. Note that levels of preparation are derived from understanding of actions to take in an emergency, conversations with family and friends and access to emergency supplies.

⁸ maunga.nz/the-ancestral-mountains-of-auckland

Te Taiao o te Ao Tūroa Natural environment

Tāmaki Makaurau is incredibly diverse and made up of unique harbours, mountain ranges, forests, islands, lakes and streams.

Ngā Āhuatanga Aronuku Geology

The central Auckland region lies on top of the Auckland Volcanic Field (AVF). The AVF is an area of active volcanic risk, represented at the surface by a collection of at least 53 remnants of past volcanic eruptions. The eruptions experienced in the AVF are different from the volcanoes of the central North Island as they are generally smaller, can occur anywhere in field and occur only once at any location. Regardless of the location and size, any future eruption in the AVF will have significant impacts on Auckland and, indeed, the entire country. Volcanoes have changed Auckland's landscape and contributed towards its success.

The volcanic cones are tūpuna maunga (ancestral mountains) which hold a paramount place in the historical, spiritual, ancestral and cultural identity of the iwi and hapū of ngā mana whenua o Tāmaki Makaurau. The maunga are at the heart of Auckland's identity and represent a celebration of our Māori identity as the city's point of difference in the world. Mana whenua relationships with the tūpuna maunga express unbroken, living connections across time, underpinned by the polynesian ethos that the physical, spiritual and human worlds are intrinsically linked⁸.

The subsurface geology of Auckland is mainly comprised of sedimentary rock. Overlying this, and dominating the surface geology, are younger marine and terrestrial sediments which are often soft, highly weathered and faulted, resulting in widespread issues with land subsidence. Auckland's land surface has been extensively modified by humans, changing the natural draining of water. Many of the 233 catchments, particularly those in urban Auckland, are short steep catchments that drain to the coast. This means that when flooding occurs, it is usually flash flooding.



Maungawhau Mt Eden

Ngā koiora me ngā pūnaha hauropi e taketake ana

Native species and ecosystems

The natural environment of Tāmaki Makaurau Auckland supports a diverse array of indigenous ecosystems including native forests, wetlands, estuaries, and coastal ecosystems. Among the most important areas for terrestrial ecosystems and the native species they support are the extensive forest tracts of the Hunua and Waitākere ranges and the offshore islands of Hauturu (Little Barrier Island) and Aotea (Great Barrier Island). Other islands of the Hauraki Gulf provide precious predator-free refuges for native wildlife and plants that have been lost from the mainland. Auckland's marine environment provides vital habitat for marine species such as the endangered Bryde's whale and a wide range of seabird species.

Protecting and restoring Auckland's biodiversity involves ongoing efforts to avoid habitat loss and to control the threats of exotic pest plants, pest animals, and diseases. As recent events have shown, the effects of climate change will increase threats to indigenous species and ecosystems through storm damage, landslips and the spread of invasive species. Aquatic ecosystems will suffer from increased flooding, erosion, and sedimentation. The native species and ecosystems of Auckland are also at serious risk from biosecurity threats. The port and airport provide potential gateways for plant and animal pests and diseases to enter the country.

Preserving and restoring natural ecosystems is not only important for the survival of indigenous species but also for maintaining the region's natural character and providing recreational opportunities and supporting the health and wellbeing of residents and visitors alike.

Te Takutai Coastline

Auckland has approximately 3200km of coastline, made up of a diverse mix of beaches, cliffs, islands, and estuaries, fed by thousands of rivers and streams in 233 catchments. The coast is a desirable location for development, but exposes communities to a wide range of hazards, including storm surge, coastal instability, high winds, and tsunamis.

The Hauraki Gulf / Tikapa Moana is a coastal feature of the North Island, between the Auckland region, the Hauraki Plains, Coromandel Peninsula and Aotea Great Barrier Island. Most of the Hauraki Gulf is part of the Hauraki Gulf Marine Park. Some of the islands are uninhabited predator-free islands, while others, such as Waiheke and Aotea Great Barrier are popular places to live. In 2018, Waiheke had a population of nearly 10,000 people, and Aotea Great Barrier had almost 1000 people.

Te Huarere Weather

Auckland's weather can change very quickly. Mid-latitude and tropical influences mean the region experiences a variety of weather patterns with consistent rainfall throughout the year, and intermittent heavy falls. Classified as sub-tropical, and surrounded by three major harbours, Auckland is insulated from extreme warmth or cold, and is often humid, with the surrounding oceans offering up ample moisture to help fuel incoming low-pressure systems.

Prevailing west to south-westerly winds can produce gusty winds, rough seas and frequent showery rainfall through winter and spring. Summer and early Autumn can offer up long dry spells and drought under higher pressures. Equally, northerly to easterly wind flows are also more common at this time of year, and these often bring the most impactful weather systems to the region, sometimes tied with sub-tropical storms or ex-tropical cyclones. Abrupt, heavy rainfall and north-easterly gales are a major risk.

In late summer 2023, the Auckland region was impacted by significant weather events tied to humid tropical airmasses from the north. Extreme rainfall during Auckland Anniversary Weekend caused significant flooding and landslides with devastating impact on Aucklanders, public infrastructure, and homes across the region. Cyclone Gabrielle quickly followed, bringing further rain and high winds, adding to the impacts on the community and infrastructure.

These events were set among an atmospheric background of a triple-dip La Niña which occurred through 2020-2023. La Niña typically brings enhanced rainfall and warmer temperatures to Auckland. This event ended in March 2023 and atmospheric circulations reversed into the opposite phase of the El Niño (El Niño Southern Oscillation (ENSO)), during Winter 2023. El Niño phases drive more frequent westerly weather for Auckland during Spring and Summer, encouraging prolonged drier spells across the region.

Historically, Auckland has always had a propensity to see high intensity rainfall events or extended droughts and in a warming world these weather-related hazards are likely to become more intense and frequent.

Te huringa āhuarangi Climate change

The latest report from the Intergovernmental Panel on Climate Change⁹ declares the scientific evidence is unequivocal: climate change is a grave and mounting threat to human wellbeing and the health of our planet. People's health, lives and livelihoods, as well as property and critical infrastructure, including energy and transportation systems, are being adversely affected by impacts from heat waves, storms, wildfire, drought, and flooding, as well as slow-onset changes including sea level rise.

The report states that the world faces unavoidable multiple climate hazards over the next two decades with global warming of 1.5 degrees Celsius above preindustrial temperatures. Even temporarily exceeding this warming level will result in additional severe impacts, some of which will be irreversible. Risks for society will increase, including to infrastructure and low-lying coastal settlements. The impacts will affect the built environment and have related social impacts. Our changing environment risks leaving a significantly different and less habitable world for our children. Cities are described as 'hotspots of impacts and risks, but also a crucial part of the solution.' The Chair of the IPCC said that our actions today will shape how people adapt and nature responds to increasing climate risk.

The evidence for warming in New Zealand continues to build. New Zealand experienced its warmest year on record in 2022, surpassing the previous record set in 2021. The upper North Island and Auckland

confidently point towards increasing temperature trends¹⁰. Annual rainfall patterns are also expected to change, with eastern portions of the North Island likely to see more summer rainfall, and rainfall intensities accompanying sub-tropical systems and airmasses expected to increase. Marine heat waves and drought are also set to become more frequent and intense.

Climate change is likely to increase the chances of strong El Niño and La Niña events¹¹. However, it is not yet clear as to how the Southern Ocean weather patterns will alter under climate change¹².

Hei whakaarotanga mā CDEM CDEM considerations

- Exposure to natural hazards including volcanic, storms (flooding, landslides, coastal inundation), drought and tsunami (see Hazards and risks in Tāmaki Makaurau for further detail)
- The varied natural environments in Auckland mean the same hazards can have different and multiple impacts across the region
- Climate change is increasing the frequency and severity of severe weather events
- The location of the key ports and airports in the region present additional risk to the biodiversity and ecosystems of Auckland.

⁹ IPCC. (2022). Climate Change: A Threat to Human Wellbeing and Health of the Planet. Retrieved from [ipcc.ch/2022/02/28/pr-wgii-ar6](https://www.ipcc.ch/2022/02/28/pr-wgii-ar6) [date accessed: 19 August 2022].

¹⁰ Bodeker, G., Cullen, N., Katurji, M., McDonald, A., Morgenstern, O., Noone, D., Renwick, J., Revell, L. and Tait, A. (2022). Aotearoa New Zealand climate change projections guidance: Interpreting the latest IPCC WG1 report findings. Prepared for the Ministry for the Environment, Report number CR 501, 51p.

¹¹ Cai, W., Ng, B., Geng, T. et al. Anthropogenic impacts on twentieth-century ENSO variability changes. *Nat Rev Earth Environ* 4, 407-418 (2023). doi.org/10.1038/s43017-023-00427-8

¹² Cai, W., Ng, B., Geng, T. et al. (2023).

Te taiao kua hangaia Built environment

Our infrastructure is critical to life, safety and to the functioning of our communities and economy. While Auckland's infrastructure providers are committed to maintaining and building resilient networks, critical infrastructure failures still pose a significant risk to the region. This is because of the potentially high consequences when major failures occur. There are critical dependencies and interdependencies between infrastructure systems. This means failure and impacts can cascade (or propagate) across these connected systems. For example, a power outage disrupts communications and financial transactions which then impacts water services and treatment plants. Equally, an extreme rainfall event creates localised flooding that inundates stormwater networks, blocks roads and floods power substations which then impacts on water supply and wastewater treatment. Cascading impacts have implications for governance of risk and priorities for action¹³.

Auckland is home to much of New Zealand's critical infrastructure, meaning that failures in Auckland can have significant consequences for the rest of the country.

Te Tāone o Tāmaki Makaurau Urban Auckland

Auckland's built environment is made up of a variety of buildings, including stand-alone residential homes, multi-storey apartments, commercial office complexes, industrial warehouses, and many unique heritage buildings. Notably, Auckland is home to some of New Zealand's tallest buildings including the SkyTower, the second tallest free-standing structure in the Southern Hemisphere. As of early 2023, there are 585,715 residential dwellings in the Auckland region and each month an average of 1430 building consents related to residential

development are applied for. Most of this new residential development (94 per cent) occurs within the Auckland urban areas through a mix of green and brown-field development, with a resulting average of 1221 new residential parcels created each month. The nature of development has changed over time, with more infill and an increasing proportion of consents granted for intensive housing types¹⁴.

Buildings throughout the Auckland region and the associated civil infrastructure to support the city are located across a highly diverse landscape, exposing these structures to varying types and levels of risk related to different hazards. Low-lying and coastal communities are more exposed to the risks posed by flooding and tsunami, built-up areas can be vulnerable to the impact of severe winds and earthquakes (particularly older or poorly maintained buildings), and landslips triggered by rain or development can affect many sites across the region. With the ongoing growth of the city it is important to ensure that Auckland's building stock is designed and constructed in ways that minimise its exposure to hazards, necessitating well informed urban planning and robust regulatory oversight of developments.

Te Tuawhenua o Tāmaki Makaurau Rural Auckland

Auckland's rural areas are a mix of cultivated, natural and built environments that contribute significantly to Auckland's identity and character. Activities in our rural environment include agriculture, forestry, horticulture, quarrying and the services that support them. Although Auckland is not a large contributor to the primary industry when compared to other regions in Aotearoa, Auckland's land still provides. The region has over 40,000ha of forestry, over 2,000ha of grain and more than 9,000ha of horticultural land. We farm sheep, dairy, deer, and beef with over 240,000 cattle across an excess of 150,000 ha of farmland¹⁵.

Auckland's rural areas border the Waikato region to the south and Northland to the north. These areas are administered by their own respective CDEM Groups. The southern rural area has a unique combination of temperate climate and frost-free fertile land which enables a wider range of vegetables to be grown. This makes a significant contribution to Auckland and New Zealand's food supply. The north and north-west has an increasing focus on rural tourism, vineyards and niche food production. Rural towns and villages vary from small coastal settlements to the satellite towns of Warkworth and Pukekohe. The types of infrastructure needed to support rural Auckland vary in terms of place and community¹⁶.

Over time, there has been a decrease in the number of rural production properties and an increase in the number of lifestyle properties. The changing urban/rural landscape of Tāmaki Makaurau has implications for fire risk. Forestry or farming activities can lead to wildfire spreading into urban areas. The risk can be higher for fire spread especially in forests adjoining road margins or residential areas. Forestry fires can start and build before they are noticed, and authorities are alerted.

Conversely, there is a risk from fire starting in urban areas (lifestyle blocks or residential burning) and spreading into the natural environment (farm, forestry, or natural areas). The urban/rural or natural/built interface risk for wildfire is of particular importance in Auckland where there are small settlements surrounded by farm, forestry or regional parks. These isolated communities can be vulnerable should a fire occur, with limited points of entry and egress. The high number of tourists and visitors in and around Auckland also creates an elevated risk in that they are unaware of the rules for fire and the associated risks of fires on our parks and beaches, which could result in fire spreading.

Remote or isolated communities are also vulnerable to the impacts of storms and flooding through damage to private property and essential services, including transport and communications networks.

Te hiko me te haurehu Electricity and gas

The Auckland region has a rapidly expanding energy distribution and transmission network. It is the largest electricity network in New Zealand in terms of connected customers, peak demand and energy consumption. Auckland has some of the highest load densities combined with relatively low levels of local generation of any region in New Zealand. Approximately 6 per cent of electricity is generated inside the region from a range of medium scale distributed generation. Most of Auckland's electricity is supplied via the transmission grid from south of the Bombay Hills, mainly made up of 110 kV and 220 kV circuits and grid exit points that supply local lines companies (Vector and Counties Energy) and heavy industrial consumers. Electricity to the northern parts of Auckland is conveyed via the Auckland Harbour Bridge and some redundancy has been added to the network through Hobsonville.

Most of Auckland's transmission infrastructure achieves N-1 security, where one circuit or transformer can be interrupted without disrupting the supply to connected consumers. Some areas of Auckland benefit from the lines company having access to smart meter data. This allows for significantly enhanced outage management, particularly when responding to extreme weather events.

Auckland's gas is supplied via high pressure gas transmission pipelines from the Pohokura and Maui Gas Fields and other fields in Taranaki. A major failure at certain key sites such as the Rotowaro compressor station may result in significant restriction of gas throughout the upper North Island. The two most critical gas delivery sites in Auckland are the Westfield and Papakura gate stations which are points of supply in the region and feed the local downstream gas distribution networks.

The two high-pressure gas transmission pipelines supplying the region provide some redundancy for each other if either of these pipelines were out of service.

¹³ Lawrence, J., Blackett, P., Cradock-Henry, N., and Nistor, B.J. (2018). Climate Change: The Cascade Effect – Cascading impacts and implications for Aotearoa New Zealand. Wellington: Deep South Challenge.

¹⁴ Auckland Council. (2022, December). Auckland Plan 2050: Development Strategy Monitoring Report. Retrieved from aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/auckland-plan/about-the-auckland-plan/Documents/ap-ds-monitoring-report.pdf

¹⁵ stats.govt.nz/indicators

¹⁶ aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/auckland-plan/development-strategy/Pages/ruralauckland.aspx#:~:text=The%20north%20and%20north%20west,towns%20of%20Warkworth%20and%20Pukekohe



Ngā ara whakawhitiwhiti kōrero

Communications

Communications in Auckland consist of fixed line, cellular and broadcast networks. Local exchanges pair connections with customers through roadside cabinets operated by Chorus. Exchanges are located in strengthened buildings and are equipped with battery backup and fixed diesel generators. Small rural exchanges are equipped with battery backup and a generator plug. If an exchange becomes isolated from the nationwide network of exchanges, it will continue to operate in local mode, meaning that local phones will be able to call other local phones from the same network. Cell sites provide local coverage and are connected to exchanges through fibre, copper, or microwave radio connections. The sector is evolving rapidly, with the introduction of new technology (including fibre and satellite) and the reduction in availability of older technology (such as copper wired services).

Television and radio broadcast networks operate from key transmission facilities located at Waiatarua, Waiheke, Pinehill, Henderson and the central business district.

Ngā ratonga wai

Water services

Most of the water supplied to metropolitan Auckland comes from reservoirs in the Hunua and Waitākere Ranges supplemented by the Waikato River. The system holds 1-2 days' supply of treated water at average demand. In the medium-term, growth and redundancy will be met by further development of the Waikato River water source¹⁷. Water is supplied from these sources through key trunk transmission watermains. Supply to the northern parts of Auckland is conveyed under the Auckland

Harbour Bridge. Failure of these watermains would cause widespread water outages or restrictions. A number of areas in rural south and north Auckland are serviced by community water systems, and many smaller communities have no reticulated supply.

The wastewater produced by metropolitan Auckland is treated at plants in Māngere, Rosedale, Pukekohe and Army Bay. Wastewater is collected through networks of pipes, pump stations and large interceptors. There are a range of factors, such as wet weather and power outages, which can cause wastewater to overflow from the network, impacting the local environment and risking public health. A number of areas in south and north Auckland are serviced by separate wastewater systems.

Approximately 45,000 properties across rural Auckland and in the Hauraki Gulf Islands rely on private wastewater treatment and / or water supply. These systems are vulnerable to drought, inundation and power outages. Damage to these systems can be complex to resolve and have impacts on wellbeing and environmental health.

The Auckland stormwater infrastructure serves a multitude of independent and relatively small catchments. Most catchments have short drainage paths to one of the many discharge points along the extensive coastline of the Hauraki Gulf, Waitematā, Manukau and Kaipara harbours. Stormwater primary systems are not normally designed to cope with significant storm events. The typical design capacity of a newly engineered stormwater system is for a 1-in-10 year rainfall event, however many older systems in the region have a significantly lower capacity than this. After the capacity of the piped system is exceeded, water is conveyed on the ground surface through overland flow paths and streams. In a major flood event, extensive local inundation can be expected as a result.



Ngā ara tūnuku

Transportation

Transportation in Auckland includes ports, airports, road and rail networks that are of national importance.

Ports of Auckland, located on the Waitematā Harbour, is the region's main gateway for import and export freight (including containers, vehicles, cement, and other bulk cargo) and is New Zealand's busiest cruise terminal.

Auckland International Airport is the gateway for around 75 per cent of New Zealand's overseas visitors with approximately 14 million passengers and 214,300 tonnes of freight passing through each year. Smaller airports in Auckland include Whenuapai (military only), Ardmore, Dairy Flat (North Shore Aerodrome) and some on the Gulf islands.

Auckland's rail network includes a north-south trunk line with minor branches connecting to the city and the Port of Onehunga. The roading network is made up of state highways and local roads. The state highway network is well developed and includes State Highways 1, 16, 18, 20A and 20. The local roading network is a mix between sealed and unsealed roads.

On average each day about 200,000 people travel by bus, 43,000 by train, and 15,000 by ferry. A significant increase in train patronage is forecast on completion of the City Rail Link.

Some of the key findings of the 2018 census include continued high car use particularly in the outer urban area of Auckland, increased public transport uptake, and increased walking and cycling in central areas. The 2018 census took place before the onset of COVID-19, so will not reflect changes in journey patterns, in particular an increase in working from home.

Te kōhinu

Fuel

Most of Auckland's fuel comes from the import terminal facility operated by Channel Infrastructure at Marsden Point (formerly a refinery operated by Refining NZ) and is distributed into Auckland by pipeline. Petrol and diesel are then distributed by truck from the Wiri Oil Depot which stores between two and six days' supply of fuel for the region. Aviation fuel is sent to Auckland International Airport by the Wiri to Airport Pipeline (WAP).

¹⁷ Watercare also actively encourages demand management.

Auckland Lifelines Group

The Auckland Lifelines Group (ALG) is a voluntary group made up of critical infrastructure organisations that operate in the Auckland region. The group's objectives are to:

- encourage and support the work of lifeline utility organisations in identifying hazards and mitigating the effects of hazards on lifeline utilities
- facilitate communication between all organisations involved in mitigating the effects of hazards on lifelines, to increase awareness and understanding of interdependencies between organisations, and to establish 'pre-event' relationships
- coordinate lifeline utilities input into CDEM planning activities
- represent lifeline utilities on the CDEM CEG
- develop best practice approaches to mitigation, readiness, and response measures for lifelines
- promote ongoing research and technology transfer aimed at protecting and preserving the lifelines of the Auckland region
- coordinate national research activities into volcano impacts on lifeline utilities through the Volcanic Impacts Study Group
- create and maintain awareness of the importance of lifelines, and of reducing the vulnerability of lifelines, to the various communities within the Auckland region.

The individual member organisations undertake comprehensive asset management planning to reduce the possibility of failure and ensure that services are re-established as soon as possible if failure does occur.

The ALG facilitates projects such as the prioritisation of infrastructure assets for response and restoration through a three-tier rating system of nationally, regionally, and locally significant assets. Vulnerability studies are undertaken to assess the potential impact on Auckland's infrastructure services from a range of natural and technical hazards and to identify potential mitigation actions.

The lifeline utility sectors are highly interdependent for their own service continuity, and most critical community sectors such as the emergency services

and health, rely on lifeline utilities to function. This means that the impacts of any major lifeline utility failure cannot be measured just in terms of loss of that service, as the impacts have the potential to be much wider reaching.

Auckland's critical infrastructure utilities are committed to the ongoing building of resilience into the networks demonstrated through significant and ongoing investment. Examples of major projects completed recently or currently underway to increase critical infrastructure resilience include:

- the Auckland Western Ring Route, which forms an alternative to Auckland's State Highway 1, linking Manukau, Auckland, Waitākere and the North Shore, is designed to improve network resilience and travel time reliability while also providing bus shoulder lanes, upgraded cycleway and pedestrian facilities
- Central Interceptor, New Zealand's largest bored wastewater tunnel, is under construction to reduce overflows of wastewater into our waterways and ocean
- the Waitematā Harbour Connections project is planning alternative ways to cross between the CBD and North Shore. The current Auckland Harbour Bridge carries most major services and utilities, such as power, telecommunications and water and a new crossing can reduce the risk posed by this network pinch-point
- the Hunua No. 4 watermain, which improves security of supply to Manukau West, Auckland International Airport and Central Auckland. Further resilience is planned through the duplication of the North Harbour watermain, reconstruction of the Huia Water Treatment Plant, and duplication of the Waikato Water Treatment Plant
- Involvement of critical infrastructure providers in the Resilience to Nature's Challenges research programmes including the 'Resilient Auckland Infrastructure' theme.

Though the consequences of critical infrastructure failure are a significant risk to the Auckland region, the resilience of infrastructure networks is increasing through mitigation projects such as those described above.

Hei whakaarotanga mā CDEM CDEM considerations

- The increasing intensity of Auckland's urban environment influences risk because higher population densities in urban areas increase the potential consequences of hazards.
- Urban areas have a high dependence on networked infrastructure for the delivery of services.
- The interconnections of infrastructure means that there are critical dependencies and cascading impacts within, between and across urban domains and systems.
- A resilient and efficient transport system plays a crucial role in supporting successful evacuation.
- Auckland imports food, energy, water, and other necessities from other regions.
- Much of Auckland's urban development has occurred near the coast or in floodplains.
- Extensive local inundation can be expected from major rainfall events (beyond the current design capacity of the stormwater system).
- Rural, coastal and island communities are growing but because of their geographical location tend to have less redundancy or backup options in their systems, making them more vulnerable to disruption and harder to restore.
- Collaboration across CDEM Group boundaries is important for supporting rural emergency management.
- Infrastructure failure would impact vulnerable groups reliant on electricity and gas for life preserving medical equipment.
- The changing built environment presents challenges for emergency response. Reliable access to water and clear transport pathways are required to support timely and effective response.

Te taiao ā-ōhanga Economic environment

Tāmaki Makaurau is New Zealand's global city with a range of unique assets and economic, cultural, and demographic characteristics that differentiate it from the rest of New Zealand. It is New Zealand's leading economic region, comprising one-third of the nation's population and generating an estimated 38 per cent of Gross Domestic Product (GDP). Auckland is the commercial centre, offering high value financial and professional services, while also being the largest centre for manufacturing.

In the 2018 census there were over 220,000 businesses in the Auckland region, with a labour force of one million people. More than 100 corporates call Auckland their Asia-Pacific headquarters. Auckland's globally facing technology, digital and screen sectors play a vital role in Auckland's economy. These export-oriented industries boast more than 12,000 firms and provide more than 71,000 jobs.

Research undertaken in 2019 as part of the National Science Challenges looked at the resilience of Auckland businesses¹⁸. The study found that of the businesses surveyed, three quarters or more were unable to function without key infrastructure services (74 per cent without telecommunications, 84 per cent without a water supply and 96 per cent without electricity). The study also found that 20 per cent of businesses did not have an emergency or business continuity plan, and of those that did, many did not practice their plans. The study highlighted a lack of planning among Auckland businesses for unexpected and disruptive natural events.

As the main gateway for New Zealand, Auckland is the primary distribution and logistics hub for the country. Auckland International Airport provides air connectivity to more than 45 destinations and serviced more than 21 million passengers in 2019 (six times more than Wellington), while the Ports of Auckland handled almost \$30 billion of import freight in 2022, double that of Tauranga¹⁹. In 2022, the number of international visitors to Auckland

rose to approximately 447,000 arrivals. Whilst this is a marked rise from 2021 (which was heavily impacted by COVID-19), the number of international arrivals has declined from 2020, in which over 1.5 million international arrivals visited Auckland²⁰. Visitor numbers are showing signs of recovery from the impacts of COVID-19. Total visitor nights in Auckland were over 6 million in the year to March 2023, an increase of 136.8 per cent compared to a year earlier²¹.

Major events are one of the core pillars of the visitor economy. For example, participants, supporters and spectators of the World Masters Games 2017 generated more than 240,000 visitor nights in Auckland and spent more than \$34.6 million while they were here.

An emergency in Auckland can significantly impact the regional and national economy, for example, a loss of output from disrupted activity and damage to land, buildings, stock, and infrastructure. Claim estimates suggest that the Auckland Anniversary Weekend floods and Cyclone Gabrielle in early 2023 are likely to have been New Zealand's two most costly weather events for insurers.²²

Hei whakaarotanga mā CDEM CDEM considerations

- The large number of businesses located in Auckland means economic activity is exposed to an emergency event.
- Low rates of business continuity planning leave businesses vulnerable.
- The consequences of many Auckland hazards have national implications.
- Large-scale events in Tāmaki Makaurau may impact Aotearoa's international reputation as a safe travel destination.
- The population of the central business district has high levels of fluctuation throughout the day and across the year from activity associated with business hours, university timetables and international tourists.
- Significant numbers of international tourists visit Auckland. This adds to the base population at any given time and a large event would require mass evacuations.

¹⁸ Resilience to Nature's Challenges. (2019). Resilience Auckland Businesses. Retrieved from resiliencechallenge.nz/project/resilient-auckland-businesses [date accessed: 26 October 2022].

¹⁹ Auckland Unlimited. (2023, February). Competing in times of challenge and change: Auckland economic and industry insights paper. Retrieved from knowledgeauckland.org.nz/media/2573/competing-in-times-of-challenge-and-change-t%C4%81tiki-auckland-unlimited-feb-2023.pdf [date accessed: 25 May 2023].

²⁰ Statista. (2022). Annual number of international visitor arrivals to Auckland, New Zealand from 2020 to 2022. Retrieved from [statista.com/statistics/1351344/new-zealand-number-of-international-visitor-arrivals-toauckland/](https://www.statista.com/statistics/1351344/new-zealand-number-of-international-visitor-arrivals-toauckland/) - :::text=In 2022, the number of,million international arrivals visited Auckland [date accessed: 27 June 2023].

²¹ Infometrics. (2003). Quarterly Economic Monitor: March 2023. Retrieved from qem.infometrics.co.nz/auckland/indicators/guest-nights?compare=new-zealand [date accessed: 27 June 2023].

²² Reserve Bank of New Zealand. (2023, May). Financial Stability Report. Retrieved from rbnz.govt.nz/hub/publications/financial-stability-report/2023/may-2023/financial-stability-report-may-2023 [date accessed: 16 May 2023].

Ngā Meka Matua Key facts



4941 sq km
of land area



447,000 international
visitors to Auckland
in 2022



Over **150** languages
spoken daily



Over **6** million
visitor nights



Auckland has
1.7 million residents



33% of NZ
lives in Auckland



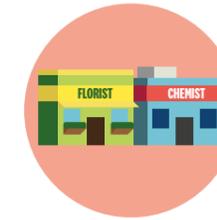
46.5% of Aucklanders were
non-European, compared to the
rest of New Zealand at **29.8%**



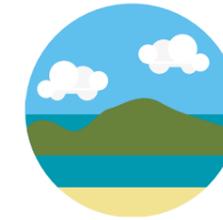
11,215 sq km
of marine area



Over **500,000** private
residential properties



Over **200,000**
businesses



3103km of coastline split
between two coasts



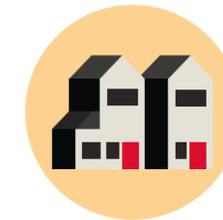
34% of the Auckland
population is under
25 years old



19,000km
of permanently
flowing rivers



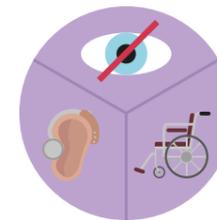
Less than **1km** between
the Manukau and
Waitematā harbours



93.7% of Aucklanders
live in urban areas



11% of the Auckland
landmass is urban area



In 2018, **5.5%** of the population
reported activity limitations with
walking, seeing, hearing, cognition,
self-care or communication



53 volcanoes within the
Auckland Volcanic Field



26% of the Auckland
landmass is indigenous
forest and shrubland



46% of the Auckland
landmass is
exotic grassland

3 Ngā Mōrearea me ngā Tūraru i Tāmaki Makaurau

Hazards and risks in Tāmaki Makaurau

The location, landscape, population, and economic importance of the region combine in unique ways to create a set of challenges for emergency management. While the region is at risk from dozens of hazards, 27 were chosen to make up Auckland’s ‘hazardscape’ by looking at previous Group Plans, and consultation with wider CDEM partners. Guidance from NEMA²³ encourages CDEM Groups to focus on hazards that have a higher impact or may require a multi-agency coordinated response. Further detail on the hazards is set out in **Appendix B**.

Te rerekētanga o ngā mōrearea i ngā tūraru

Hazard vs. risk

Though these terms are often used interchangeably, they have very different meanings. In the CDEM Act, a hazard is ‘something that may cause, or contribute substantially to an emergency’, while a risk is ‘the likelihood and consequences of a hazard’. In this plan we discuss hazards in terms of natural, biological, and technological (or human) events that negatively impact our communities. Risk is more complicated, as it incorporates not only the potential hazard, but also the vulnerability and potential consequences, considering factors like population density, infrastructure, preparedness measures, and the ability to respond effectively.

Where the term ‘hazard risk’ is used, we are referring to the holistic result of the risk assessment process, which combines both the likelihood and impact of the hazard event.

Ngā mōrearea huanga whaiwhai me ngā mōrearea whakaputu

Cascading and compound hazards

Hazards rarely happen in isolation. Cascading and compound hazards can amplify the overall impact and complexity of the event. Cascading hazards occur when one hazard triggers other events, such as heavy rain that causes flooding and landslides. Compound hazards involve multiple different events or factors occurring simultaneously, amplifying the impacts of any one event, such as king tides occurring at the same time as a storm event. Storms themselves can be considered compound events, which may include multiple different hazards that can also occur in isolation such as high winds, heavy rainfall, and storm surge.

These types of hazards create added challenges as the combination of events can overwhelm response and recovery systems, making it more challenging to mitigate and manage the impacts effectively.

In our risk assessments, we have considered impacts of hazards we know often occur at the same time. For example, we know that power failures often accompany severe storms, but also can occur for other reasons.

Te Tukanga Arotake i te Tūraru Mōrearea mō Tāmaki

Auckland’s Hazard Risk Assessment Process

To assess each hazard, a risk assessment process was developed based on guidance from NEMA. This process allows each hazard identified in our hazardscape to be reassessed at least once in every five-year Group Plan cycle, to ensure that we monitor how the risk associated with each hazard is changing over time. It uses scenarios, which set the scene to guide a workshop with our wider CDEM Group partners, to gauge how a ‘Maximum Credible Event’ could impact the social, built, economic and natural environments of the Auckland region.

Six fully-workshopped hazards were completed in time for the current Group Plan. A survey-based approach was used to provide a risk assessment basis for the other hazards which will be fully assessed in workshops over the next five years in preparation for the next iteration of the Group Plan. The process is designed to be nimble to adapt to what we learn about our hazards, allowing us to add or combine hazards into groups, or consider more impactful scenarios. The results of the risk assessment workshops and survey tools are set out in the hazard risk ratings table identifying hazards that are high, medium and low risk (**Table 1** Hazard risk ratings). The hazard risk ratings are a combination of consequence and likelihood. Further detail on the rating process is provided in **Appendix C**.

The purpose of the risk assessment process is to provide a mechanism for the CDEM Group to come together with our CDEM partners and think collectively about the consequences of hazards on our communities. This provides a shared understanding of risk priorities, and enables a more detailed review of consequences common across a range of hazards, enabling consequence-based planning and targeted risk mitigation. While the ranking of risk is useful, the analysis of the data also allows us a much more fulsome understanding of who or what is most at risk from a variety of hazards, and where the common impacts may be across multiple hazards.

Ngā Tātairanga Mōrearea

Hazard Risk Ratings

Based on the 6 workshops and 21 survey results, the risk scores for the 27 identified hazards were calculated and their risk rating presented in Table 1. It is important to note that these risk ratings should be considered preliminary. This means the results published here reflect our current understanding of the risk, but may change as the risk assessment process is fully embedded and risk workshops are completed for the remaining hazards. Results will be captured during the workshops, integrated into our ongoing plans, and will be published every 5 years as Group Plans are reviewed.

²³ National Emergency Management Agency. (2022, April). Risk Assessment: Guidance for CDEM Group Planning. Director’s Guideline for Civil Defence Emergency Management Groups [DGL23/22].



Hazard (in no order)	Likelihood	Consequence	Risk Rating
Earthquake	Unlikely	Major	High risk
Tsunami	Unlikely	Major	
River flooding (catchment flooding)	Possible	Moderate	
Widespread severe storm	Possible	Moderate	
Human Pandemic	Possible	Moderate	
Severe thunderstorm / tornado	Likely	Minor	
Electricity supply failure	Possible	Moderate	
Volcanic eruption – Auckland Volcanic Field	Rare	Major	Medium Risk
Volcanic eruption – distant source	Rare	Moderate	
Animal pest / disease	Possible	Minor	
Plant pest / disease	Possible	Minor	
Urban flooding (flash flood)	Possible	Minor	
Drought	Possible	Minor	
Fire – built environment / structure fire	Possible	Minor	
Fire – vegetation / wildfire	Possible	Minor	
Fuel supply failure	Possible	Minor	
Hazardous substance event	Possible	Minor	
Heatwave	Possible	Minor	
Marine pollution incident	Possible	Minor	
Storm surge	Possible	Minor	
Water supply failure / contamination	Possible	Minor	
Cyber attack	Possible	Minor	
Civil unrest	Unlikely	Minor	Low risk
Terrorism	Unlikely	Minor	
Mass transport accident	Unlikely	Minor	
Dam failure	Rare	Minor	

Table 1 Hazard risk ratings

Ngā Tūraru me ngā Pānga ki Tāmaki

Risk and impact in Auckland

Using the risk assessment process outlined in the NEMA Directors Guideline, no hazard has reached the threshold to be given a ‘very high’ or ‘critical’ risk rating. This does not mean that Auckland does not experience intense and impactful hazard events, but reflects the difficulty of applying a regional risk assessment process to a region like Auckland.

Auckland’s diverse communities and populations are spread out over and around equally diverse landscapes that include urban centres, forested ranges, volcanoes, rolling grasslands, picturesque harbours, and expansive coastal plains. This contributes to the different way in which Aucklanders experience disasters and emergencies. A distributed infrastructure network, strong social connections and community groups contribute to the Auckland region as a whole having a high adaptive capacity. However, adaptive capacity can be variable on a local scale. This means, hazards that impact the entire region may only result in localised impacts that can be devastating to individual communities, while the wider region is able to recover more quickly. This was seen recently in early 2023 with the Auckland Anniversary Weekend floods and Cyclone Gabrielle significantly impacting some communities.

This creates challenges as the risk assessment process assesses most risks on a regional scale, masking the severe local impacts and complexities. These local complexities can be identified during the workshop process and more directed risk reduction measures can be considered. While the Auckland hazard risk assessments consider the ability of the entire region to manage the impact and recovery of the region, our planning and relationships must also consider response requirements at the local level.

Te tūraru me te huringa āhuarangi Risk and climate change

The impacts of climate change will change the way we experience disasters both directly and indirectly. Weather-related natural hazards (e.g. severe widespread storm, drought, severe thunderstorm) or those compounded by the weather (e.g. landslides) will become more frequent and intense, and sea-level rise will expose more communities to coastal hazards (e.g. tsunami, storm surge). The changing climate will also impact our adaptive capacity and create challenges for recovery from disasters (e.g. more frequent nuisance flooding will cause long-term management challenges).

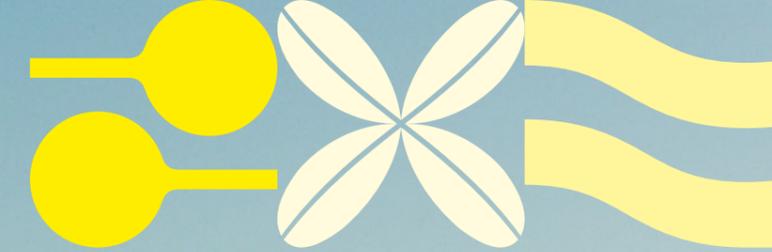
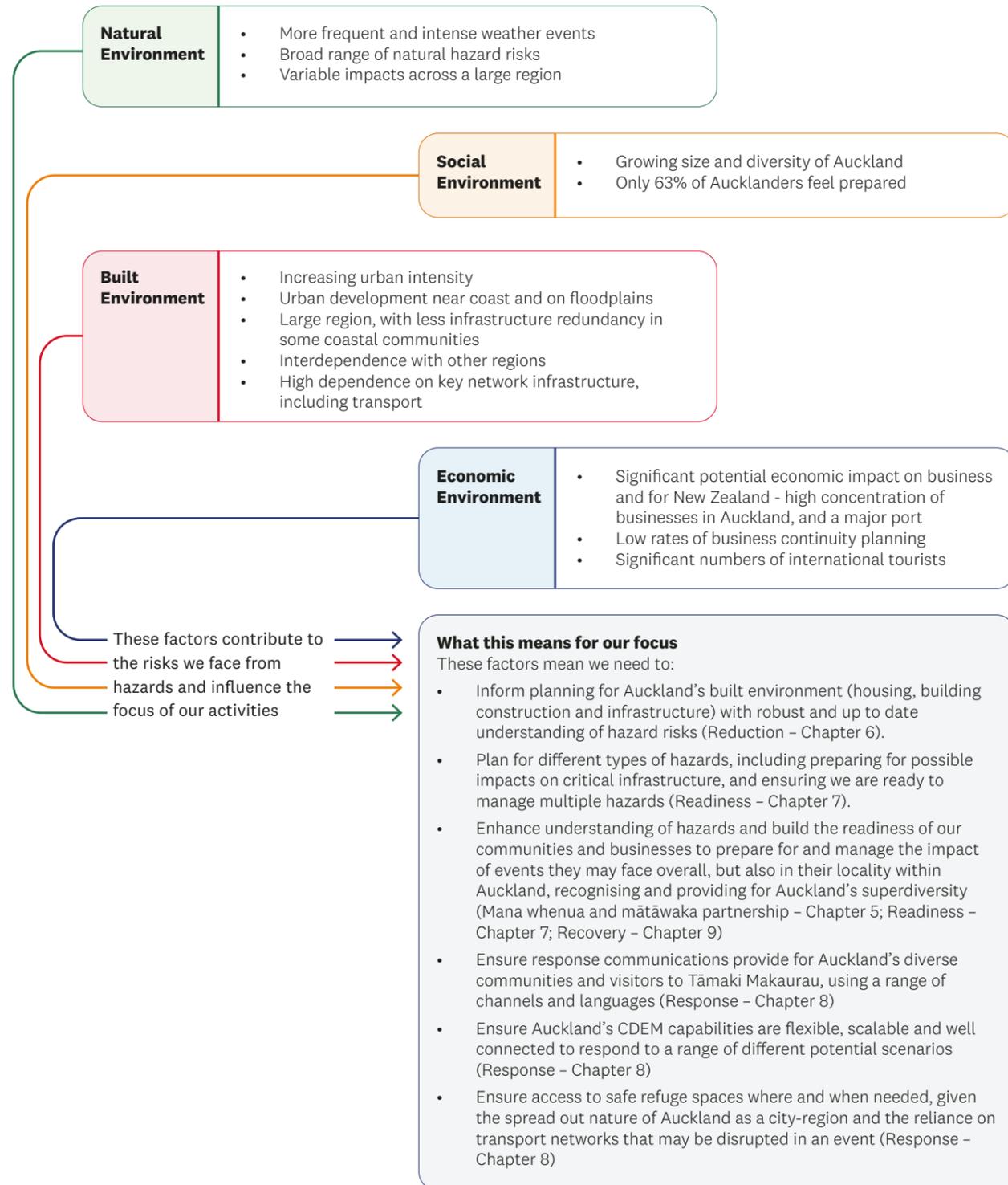
The 5 year risk assessment cycle allows us to incorporate the latest science and understanding of the changing climate into our scenarios and severity determination. The granular assessment of elements across the four environments also supports the identification of which parts of our communities are particularly vulnerable to multiple hazards, including those hazards sensitive to the impacts of climate change.

Auckland Council takes a long-term view of climate change through Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan. Additionally, all decisions put before Auckland Council committees, including the CDEM Committee must outline their climate change implications or impact. This encourages both mid- to long-term impacts of climate change to be considered in Auckland CDEM work programmes and plans.

He aha te tikanga o tēnei

What does this mean

The factors from our four environments (environmental, built, social and economic) and our hazard risks, guide the focus of our activities and actions, described in later chapters of this document.



Central Business District viewed from the North Shore

4 Te Patuinga ki ngā Iwi me ngāi Māori Mana whenua and mataawaka partnership

The Tāmaki Makaurau CDEM Group is committed to growing meaningful partnerships with mana whenua and mataawaka through considered collaborative engagement befitting a true partner. The impacts on Māori from disasters can be significant, particularly tāngata whaikaha Māori (disabled Māori). There are real strengths in integrating kaupapa Māori, mātauranga Māori and tikanga Māori into resilience building for disasters. Mana whenua hold mātauranga mai rā anō (traditional and historical lived-experience and knowledge of an area, place or space).

Relationships with mana whenua and mataawaka have been strengthened by working together to respond to COVID-19 and other emergency events. We are committed to building on this foundation and learning from these experiences to broaden our reach and engagement with Auckland’s Māori communities to ensure their voices are heard and needs are met before, during and after emergencies. An iwi-Māori advisory role has been established as a key point of contact for Māori communities and to ensure their interests are being represented during emergency response.

Whakaoranga marae, Whakaoranga whānau Strong marae, strong whānau

Whakaoranga Marae, Whakaoranga Whānau was developed in line with the National Disaster Resilience Strategy Ruataki ā-Motu Manawaroa Aituā to ensure greater recognition, understanding and integration of mana whenua and mataawaka perspectives and tikanga in emergency management.

Marae are a taonga and should be considered as such. They are an integral part of the community often going out of their way to respond to community needs when disaster strikes. Whakaoranga Marae, Whakaoranga Whānau is a framework designed to support marae in their mahi focused on building resilience to disasters. It was developed in collaboration with Ngā Mātārae, Ngati te ata Waiohū, the National Māori Wardens Response Team, Nelson / Tasman emergency management, Ngai Tahu emergency management and Massey University.

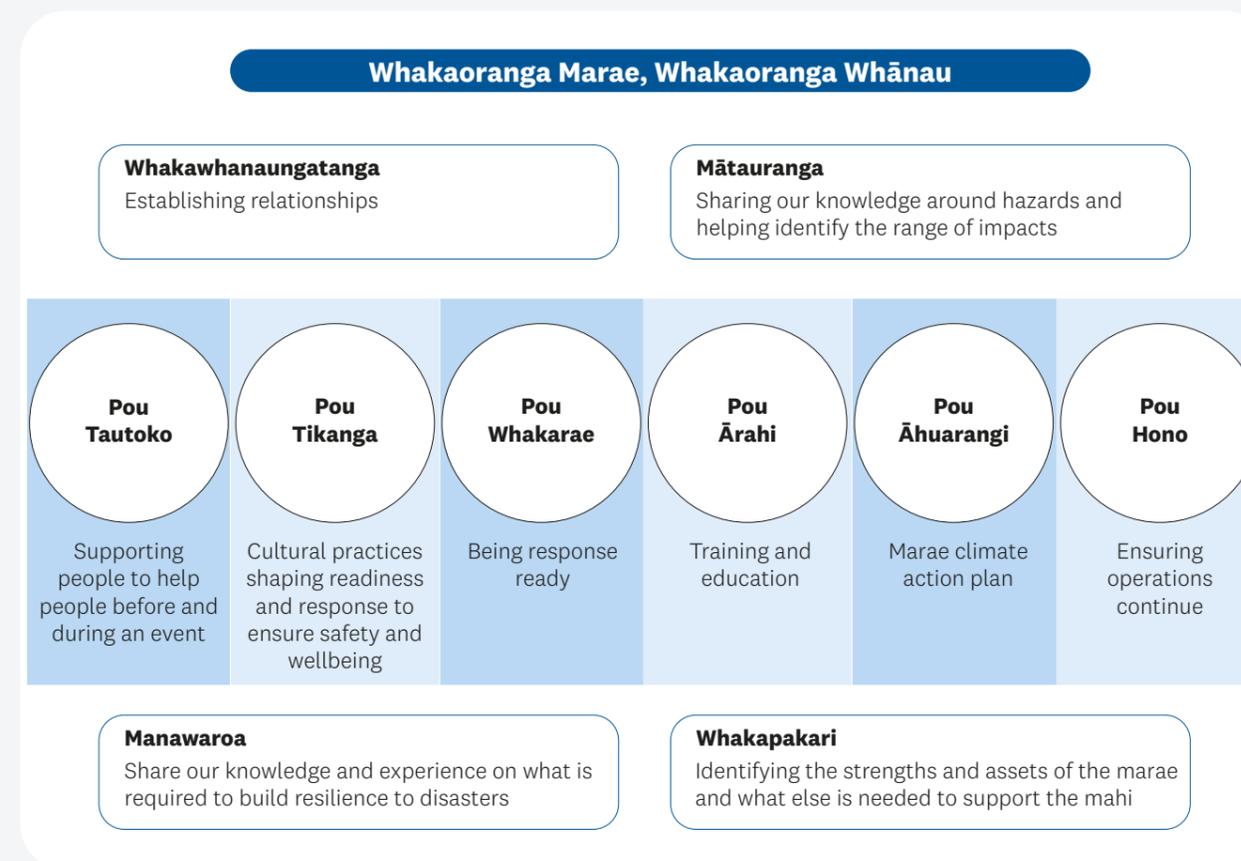


Figure 4 Whakaoranga marae, whakaoranga whānau

The programme is about sharing knowledge and expertise around hazards and the effects they may have on whānau, hapū and iwi. It also provides guidance on things to consider during the marae planning process and offers tools to help support marae in building readiness, responding to and recovering from, emergencies. The four key aspects of the framework are:

- whakawhanaungatanga – establishing, maintaining and strengthening relationships
- mātauranga – reciprocal sharing of knowledge around hazards and helping identify the range of impacts

- manawaroa – reciprocal sharing our knowledge and experience on what is required to build resilience to disasters
- whakapakiri – identify the strengths and assets of the marae and what else is needed to support the mahi. This includes gaining an understanding of the role a marae may be interested in playing to support others in response.

The six central pou shown in **Figure 4** below provide guidance to support marae resilience planning.



Kia Rite, Kia Mau

The Kia Rite, Kia Mau programme was developed to support tamariki and rangatahi in preparedness and disaster resilience, incorporating tikanga Māori. It has a focus on three key areas to support learning objectives:

- Ngā Atua Māori – Māori gods: guardians of the natural environment. The five Atua in the programme represent the key hazards in Tāmaki Makaurau
- Kōrero mō ngā aweawenga: Impacts – understanding the potential impacts of an emergency can help people get through. The programme uses kōrero in groups to discuss what could be done in emergency situations
- Ngā tikanga whakarite mō te mōrearea: Preparedness – discussion of how to prepare yourself and your whānau for an event.

The programme is delivered in schools and kura, and provides a range of engaging resources, such as a whānau readiness plan (hangaia he mahere) that can be used to share the learning at home.

Hei aronga mā tātou

What we need to focus on

While huge progress has been made in recent years to enhance the involvement of mana whenua and mataawaka in CDEM activities in Tāmaki Makaurau, there is always room for improvement. Whakaoranga Marae, Whakaoranga Whānau and Kita Rite, Kia Mau are exemplar frameworks for engagement with mana whenua and mataawaka on disaster resilience. We need to collaborate with our partners to leverage opportunities for the programmes to be facilitated by others, to widen the audience and impact.

While the iwi-Māori advisory role has been established to support response, there are opportunities for wider representation at different levels across the system.

Te Mahere Patuinga ki ngā Iwi me ngāi Māori Mana whenua and mataawaka partnership action plan

Objective	Actions	Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
A strong relationship between emergency management organisations, mana whenua and mataawaka, to ensure greater recognition, understanding, and integration of Māori perspectives and tikanga in emergency management. Whānau, hapū, marae and iwi are resilient and capable of responding to and recovering from emergencies, and are adequately funded to do so.	1. Coordinate with our partners to expand delivery of Whakaoranga Marae, Whakaoranga Whānau and Kia Rite, Kia Mau to support mana whenua and mataawaka disaster resilience, and support investigation into funding arrangements for iwi and marae to enable them to deliver response activities aligned with legislation.	Numbers of marae participating in Whakaoranga Marae, Whakaoranga Whānau programme. Numbers of schools and kura participating in Kia Rite, Kia Mau programme. Partnerships formed with others to support delivery of the programmes.	Improved mana whenua and mataawaka resilience to disasters.	AEM	Ngā Mātārae
Enhanced representation of mana whenua and mataawaka across the emergency management system.	2. Secure representation of mana whenua and mataawaka in the Incident Management Team and Coordinating Executive Group.	Confirmed appointments at different levels in the system.	Kaupapa Māori, mātauranga Māori and tikanga Māori are strengthened in emergency management in Auckland.	AEM	Ngā Mātārae



Figure 5 Ngā Atua Māori - Māori gods - Guardians of the natural environment

5 Te Whakaiti Reduction

Risk reduction involves 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 the likelihood of their occurrence to an acceptable level.

Auckland Council works with its stakeholders, partners, neighbouring CDEM Groups and the community to understand and manage risk. The measures currently in place align broadly to three themes: research forums, strategies and plans, and tools. In addition, Auckland Council carries out maintenance work of its assets as part of routine risk reduction. A range of risk reduction activities are also led by partner agencies, such as the Fire Plan for Tāmaki Makaurau, a regulatory tool for reducing wildfire risk.

He rūnanga rangahau i runga i te mahi ngātahi

Collaborative research forums

Forums enable scientists, technical experts, and emergency management practitioners to come together to share learnings, enhance hazard and risk understanding and work together towards common goals. Research Investigations and Monitoring Unit (RIMU) and Corporate Sustainability Office (CSO) of Auckland Council also maintain research programmes to inform Auckland Council operations.

Determining volcanic risk in Auckland (DEVORA)

DEVORA is a multi-disciplinary, cross-sector collaborative research programme led by GNS Science and the University of Auckland, with additional funding from Toka Tū Ake Earthquake Commission (EQC) and Auckland Council. Since

2008, researchers and emergency managers from across New Zealand have worked together to study the Auckland Volcanic Field. Representatives from Auckland Council have sat on the DEVORA Steering Committee since its inception, providing emergency management and local government perspectives and advice. AEM and DEVORA also collaborate on public and media outreach activities and contribute to resources to engage and educate the public on volcanic risk in Tāmaki Makaurau.

Scientific advisory groups and national research programmes

Auckland Council has a strong presence on multiple national scientific advisory groups, special interest groups, and national research programmes that contribute to understanding and reducing hazard risk. These include those driven by both the emergency management and research sectors such as the Tsunami Working Group, a subgroup of the National Emergency Management Development Group (NEMDG) and the Resilience to Natures Challenges National Science Challenge.

Auckland Council coordinates with other CDEM Groups to better understand and plan for shared hazards and risks. Examples include:

- The upper North Island tsunami working group involving Auckland, Northland, Waikato and Bay of Plenty CDEM Groups
- The Regional Hazard Management Special Interest Groups which addresses inter-regional and national hazard risk and creates a Community of Practice for inter-group and inter-agency sharing of information and best practice.

Forums are further described in the Readiness chapter.

Ngā Rautaki me ngā Mahere Strategies and plans

Strategies and plans apply the research and set out the approach to risk management in a range of settings. They can apply internationally, like the Sendai Framework for Disaster Reduction (2015-2030) nationally, such as the National Adaptation Plan, National Disaster Resilience Strategy and the National Tsunami Strategy, or regionally/locally as described in the Auckland examples below. **Figure 6** Planning framework displays the planning framework hierarchy and sets out key plans lead by AEM, the wider council and partner and stakeholder organisations.

Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan

The climate is changing, and with it, the way our communities experience disasters will change too. Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan is the Auckland Council roadmap to a zero-emissions, resilient and healthier region that is better connected to our environment and able to thrive in the face of ongoing change and disruption. Within the plan are strategies to better understand the influence of the changing climate on our hazard landscape and actions we can take to adapt, including nature based solutions. Te Tāruke-ā-Tāwhiri describes the interface with the Natural Hazards Risk Management Action Plan and the activities of AEM in reducing or managing hazard risk to our communities.

Auckland Council Infrastructure Strategy 2021

Auckland Council's Infrastructure Strategy forms part of the 10-year budget 2021-2031. It describes the biggest issues facing Auckland's infrastructure as climate change, natural hazards, growth, equity and funding. The plan sets out a whole of council response to the infrastructure issues and identifies infrastructure portfolio responses to them.

Natural Hazards Risk Management Action Plan

The Natural Hazards Risk Management Action Plan (NHRMAP) summarises Auckland Council activities relating to the management of natural hazard risk. It is an internal document that was developed to enable better coordination of these activities, ensuring council-wide projects and initiatives consider hazard risk. The plan outlines function areas across Auckland Council that play a role in natural hazard risk management and the overarching objectives and actions the council will undertake over the next 10 years to reduce risk from natural hazards. Progress is reported annually to the Environment and Climate Change Committee. The work is coordinated by the Resilient Land and Coasts team within Infrastructure and Environmental Services and is supported by the wider council. NHRMAP sits alongside and supports this Group Plan.

Tsunami Work Programme

The Tsunami Work Programme is a multidisciplinary series of related projects to better understand and mitigate or reduce the impact tsunami may have on our coastal communities. It includes improving our understanding of tsunami flooding and inundation, where and in what ways our communities may be vulnerable to them, and what technologies or strategies could be employed to reduce their risk. Within the lifecycle of this Group Plan, we expect to deliver revised tsunami evacuation maps based on the latest modelling techniques and best practice in hazard communication. This work will inform a Public Alerting Strategy as well as the Tsunami Response Plan.

Shoreline Adaptation Plans

Shoreline Adaptation Plans relate to the future management of Auckland Council owned land and assets on the coast. They set out a sustainable, systems-based approach to the management of Auckland’s shoreline over the next 100 years.

The plans aim to:

- manage the impact of erosion and flooding on Auckland’s diverse coastline
- manage the impacts of rising sea levels due to climate change
- identify risks to safety, coastal defences and surrounding infrastructure
- set a long-term plan to manage our coastline.

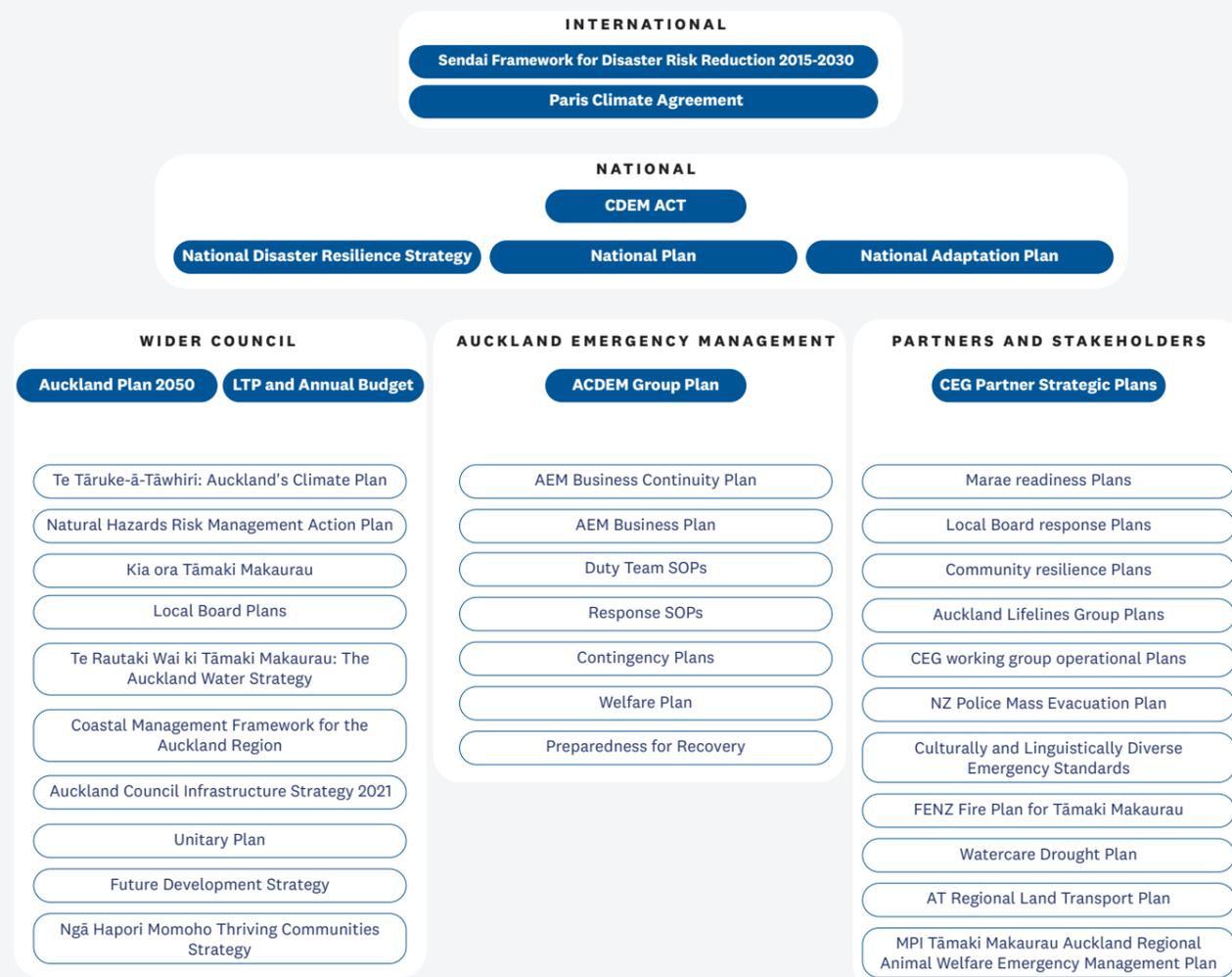


Figure 6 Planning framework

Ngā Utauta Tools

Tools are practical instruments that can be used to manage risk. They can be legislative, setting out rules for risk management in our built environment, or non-statutory such as risk assessments, contributing to risk understanding. Information and communication tools like Auckland’s Hazard Viewer enable a greater understanding of hazards and potential impacts, which reduces risk. Key tools for managing risk in Tāmaki Makaurau are further described below.

Auckland’s Hazard Viewer

The hazard viewer is a web-based portal relating to key natural hazards for which Auckland Council holds geospatial data. This interactive map allows the public to learn whether they live or work in areas impacted by these hazards. The hazard viewer currently displays information relating to flood plain and flood prone areas, tsunami evacuation zones, coastal inundation, and severe wind zones for Auckland. It also includes information relating to the Auckland Volcanic Field, active fault lines and details about past events that have impacted the region. Each map contains information on the hazard, how to prepare for it, and where to find more information within the AEM website, or other official sources of information. The Hazard Viewer can be accessed [here](#)²⁴.

Hazard understanding has a strong interface between reduction and readiness. Understanding hazards, and preparing for them, reduces the potential impact they can have on individuals, communities, and businesses.

Legislative tools

There is no single legislative tool relating to hazard risk, rather multiple pieces of national and regional legislation work together to manage risk associated with natural hazards or their impacts²⁵.

Statutory plans, such as the Auckland Plan 2050, set the overall strategic direction for Auckland. The Auckland Plan is supported by statutory requirements for a 30-year infrastructure strategy, future development strategy, asset strategy and management plans, bylaws, and codes of practice.

Te Mahere Whakakotahi Tāmaki Makaurau Auckland Unitary Plan is the regulatory foundation for managing land subdivision, use/development in Auckland, including where related to natural hazards, risks to people, property, infrastructure, and the environment. The provisions in the plan focus on managing flooding, coastal inundation, coastal erosion, land instability and wildfires. Consent is usually required for subdivision, use and development in areas which may be subject to the risks from these hazards. Applicants are required to provide a site-specific hazard risk assessment to support their proposals as part of the resource consent process. The Building Act 2004 and the Building Code set out the detailed rules for construction, alteration, demolition, and maintenance of new and existing buildings in New Zealand.

Some legislative tools work with communities to understand their wishes for managing their risk, either through land management, or physical interventions (such as Auckland Council Coastal Management Plans).

A scope of works to investigate recent flooding impacts, implications, and improvements was approved by a delegated group of the Planning, Environment and Parks Committee in March 2023. This work is intended to set out priority actions for strategy, policy and planning settings that align with and complement operational and recovery actions. It will also outline a framework of short, medium, and long-term activity across the Auckland Council whānau to enable a cohesive view of our collective impact.

²⁴ aucklandemergencymanagement.org.nz/hazard-viewer

²⁵ S89 of the National CDEM Plan Order lists legislation addressing risk reduction.

Hei aronga mā tātou What we need to focus on

Climate change is increasing the frequency and severity of weather-related hazards. Local hazard modelling and risk assessments need to be regularly reviewed as climate change assumptions evolve and new data becomes available. Our risk assessments need to remain up to date to inform natural and built environment planning and decision-making to reduce and manage risks and prepare ourselves to respond to and recover from events effectively. These challenges are not Auckland-specific; they will present issues for much of New Zealand. National policy on risk reduction and climate adaptation, such as the National Adaptation Plan, will support a safer built environment, with flow on effects for the safety of people.

We need to ensure updated risk assessments are effectively applied to wider council processes, including plans and processes for planning,

consenting, and infrastructure investment. This will ensure that the council decision-making processes reflect a changing risk landscape. It is also important that the public can access information to help them make informed decisions about property and land use, and their own management of hazard risks. We can enhance public understanding of risk through communication and engagement using a range of channels.

Regulatory planning documents also need to ensure that the needs of response agencies are catered for to reduce risks to people and property. Emergency response is dependent on, and requires access to, water and clear transport pathways. Emergency services report increasing response delays due to traffic congestion. Delays result in negative health outcomes for acute patients. Well-functioning urban environments are those that have good accessibility and are resilient to the current and future effects of climate change. A review of the regulatory and non-regulatory frameworks for risk reduction is required, taking account of these factors.

Te Mahere Mahi Whakaiti Tūraru Risk reduction action plan

	Objective	Actions	Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
Hazard understanding	Hazard risks are well understood, based on up-to-date evidence, and communities, businesses and government organisations take reasonable steps to prevent and/or manage these risks.	3. Identify information gaps that affect our ability to manage natural hazard risks, and conduct a cross-council programme of hazard research to address the gaps and embed hazard considerations across council activity.	Identification of information gaps. Programme of hazard research approved and reported.	Hazard understanding is embedded across different areas of the council (such as Auckland Council Coastal Adaptation Plans, Committee reports, and the Tsunami Work Programme).	Infrastructure and Environmental Services (Resilient Land and Coast)	Wider council
		4. Work with partners to promote region-wide hazard information across multiple platforms to improve knowledge and understanding of hazards, warning and alerting tools. Platforms include social media, Geographic Information Systems (GIS), Land Information Memorandums (LIMs) and through Local Board Readiness and Response Plans and community resilience plans.	Increased knowledge of hazards demonstrated in community preparedness survey.	Improved knowledge and understanding of hazards.	AEM	Wider council CEG partners Mana whenua and mataawaka
Planning and decision making for the built environment	Planning instruments for the built environment are consistent with National Policy, informed by a robust understanding of current and expected future hazards and enable reduction.	5. Undertake a review of the current regulatory and non-regulatory frameworks in relation to their effectiveness in risk reduction and implement required changes.	Reporting to Planning, Environment and Parks (PEP) Committee and subsequent changes to planning framework. Outcomes reported to CDEM Committee for information.	Frameworks support better, hazard-informed decision-making regarding locations of developments and infrastructure.	Plans and Places	Wider council
		6. Collaborate with central government to design a clearer process for: <ul style="list-style-type: none"> implementing adaptation options including managed retreat as a method to reduce risk, and avoiding the establishment of developments in areas where the extent of hazard risk warrants such an approach. 	Reporting processes to PEP and CDEM Committee.	Clarity about the approach to adaptation options including managed retreat as a risk reduction tool. Future developments in appropriate locations.	Plans and Places	Wider council



Risk assessment workshop

6 Te Whakaritenga Readiness

Readiness involves developing operational systems and capabilities before an emergency happens, including planning with emergency services, lifeline utilities and other agencies, and supporting communities to be prepared. Operational readiness is achieved through planning, developing capability and capacity, exercising and testing. Individual, community and business readiness is supported by public awareness and community engagement activities that contribute to building disaster resilient communities.

Ngā Mahi e Takatū ai ki te Kori Te Whakamahere Operational readiness activity Planning

Te Whakamahere i te Ārai Raru Ohorere Emergency management planning

All organisations involved in emergency management should prepare plans that outline their arrangements for contributing to the response to and recovery from an emergency. Planning provides a methodical way to think through and develop arrangements for addressing every stage of an emergency. It describes a desired outcome, outlines effective ways for achieving it, and communicates expectations of response and recovery partners.

AEM develops and maintains the following plans:

- AEM Business Plan and work plans: Plans setting out the detail of how the Group Plan will be implemented
- Ara Whakariteritanga Preparedness for Recovery – sets the vision for recovery and focus areas for action
- Auckland Welfare Plan – the plan for the provision of welfare services in Auckland to minimise and address the impacts of an emergency on people and animals
- Contingency plans: Address key considerations for specific hazards (e.g. volcanic) or events/impacts (e.g. concurrent events, evacuation²⁶)
- Duty Team Standard Operating Procedures: Tools outlining the processes to be followed when monitoring potential hazards prior to a potential emergency event
- Response Standard Operating Procedures: Tools used to provide detail on implementation of CIMS during response including:
 - determining whether to activate the Incident Management Team (IMT)/ Emergency Control Centre (ECC)
 - the processes for the function desks and their sub-functions once they have been activated.

Figure 6 Planning framework (Reduction chapter) identifies the plans prepared by AEM, the wider council and partner and stakeholder organisations. SOPs are addressed further in the response section of this plan.



Response team training

Te Whakamahere i te Haerenga Tonutanga o te Mahi Business continuity planning

Business continuity planning identifies the services and functions of a business or organisation and any potential risks or events that may impact an organisation’s functionality. It provides timeframes for the maximum tolerable period of disruption to those services and identifies who within the organisation has overall responsibility for the return of services. It also provides a framework for improving organisational resilience to any potential disruption by identifying and protecting essential business processes and assets, and by building capability to manage the event and recover quickly from it.

After establishing an acceptable business continuity plan, organisations are responsible for regularly maintaining, reviewing, testing and updating the plans and processes. This is to ensure organisational resilience is continually supported and the organisation can adapt in a changing environment.

Auckland Council’s business continuity plans are owned by Risk and Assurance who provide overall structure and guidance within the organisation. AEM also prepares and maintains its own plans for both business as usual and in response.

Te Whakawhanake i te Āheinga me te Raukaha Developing capability and capacity

The CDEM Act requires CDEM Groups to ensure suitably trained and competent personnel are readily available for effective emergency management in their area. Capability development activities are determined through development needs analysis processes, to align with the spirit and intent of the National CDEM competency framework.

Capability and capacity development encompasses training, exercising, evaluation, well-being support, and career development. In the CDEM context, developing capability includes enabling people to perform confidently and competently while under high levels of stress. AEM drives this by:

- conducting training and exercises aligned to NEMA training architecture, other CDEM Groups, and education providers (including universities, consultants, and private training establishments) for both AEM staff and Auckland Council Emergency Support personnel (ACES)
- on-the-job learning and assessment, particularly for the Duty Team and Incident Management Team

²⁶ Note: Police lead evacuation planning. AEM plans for evacuation consider how to support Police.



- attending appropriate workshops and conferences
- enhancing, integrating and maintaining training and development opportunities with other CDEM Groups and our CEG partners, to ensure consistency of operational practice
- conducting debriefings after major training programmes and deployments to refine AEM’s processes and improve operational capability
- online training delivery when required to provide better flexibility for learner needs
- operational deployment of personnel to support other Groups in real-world incident management roles
- focusing on self-care and wellbeing training and support with external providers of wellbeing programmes, and embedded health support processes.

AEM has developed the AEM Capability Development (Skilled People) Pathway which sets out a road map to enhance staff capability and capacity in both the business as usual and response environments. The strategic goals identified in the strategy are:

- AEM will provide training to meet technical and leadership competencies for CDEM staff, Group Controllers, ACES and New Zealand response teams
- Capability development and career pathways exist for CDEM staff and ACES and are monitored, evaluated, and refined on a regular basis
- National, regional and local CDEM relationships are developed and strengthened.

A comprehensive learning needs assessment for AEM staff conducted in 2023 provides clear recommendations and learning pathways for all response roles. In addition, the council routinely scans for training and upskilling opportunities for staff, including liaison with agency partners, and deployments for staff to learn from experience in other regions.

Te Whakaharatau me te Whakamātau

Exercising and testing

Exercises play a vital role in identifying gaps and issues and improving organisational resilience and emergency management planning. Exercises are a good way to measure the effectiveness of emergency management plans and procedures and provide staff an opportunity to practise their knowledge and skills against a scenario.

The National Exercise Programme (NEP) is chaired by NEMA and reports to the Hazard Risk Board (the National Security System (NSS) governance body responsible for building resilience). The NEP builds capability across government through a coordinated series of interagency readiness activities, measured against a set of national objectives. Capability is also built through the capture and sharing of lessons identified from previous events and exercises. AEM supports this programme through its membership of the NEP Governance Group and conducts its own local exercises to test plans and systems specific to Auckland.

Te Aroturuki me te Tautiaki i ngā Mīhini me ngā Taputapu

Plant and equipment monitoring and maintenance

AEM carry out a programme of monitoring checks and inspections of all the operational equipment used for situational awareness and response, from communication equipment and alerting systems, through to vehicles and buildings. All faults and maintenance are then processed to be remedied as soon as possible.

Te Whakawhanake i ngā Patuinga mā te Mahi Tahī a ngā Umanga Maha

Developing partnerships through multi agency collaboration

Collaboration at the national, regional and local level is particularly important to ensure alignment of plans where multi-agency responses are required. Collaboration is built through relationships before emergencies occur. The establishment of multi-agency collaboration groups provides a mechanism for planning, communication, awareness and relationship building. At a national level, Auckland Council is a signatory of a partnership charter between NEMA and the sixteen CDEM Groups around the country. The purpose of the charter is to increase collective readiness and resilience. The following groups are established in Tāmaki Makaurau.

Te Rōpū Wānanga i te Āheinga me te Raukaha

Capability and Capacity Working Group

Members of the Capability and Capacity Working Group (CCWG) are representatives of the CEG partner agencies. Other council or external entities may be invited into the working group from time to time as appropriate. The purpose of the group is to build an aligned and collaborative approach to capability building, initially focusing on joint exercises, and expanding over time to include training and lessons management.

Te Kāhui Whakahaere i te Ārai Raru Ohorere

Emergency Operations Network

Members of the Emergency Operations Network are made up of operational response partner agencies in Auckland. The purpose of the network is to develop strong relationships with our emergency management partners and city stakeholders to deliver effective emergency management and coordinated responses to emergencies in Auckland.

AEM facilitates the Emergency Operations Network within the Auckland region. The meetings are held within three regions; north-west, central, and south-east. They are a forum for building relationships between emergency services and allied response organisations and are attended by operational staff from the agencies involved.

Rōpū Whakahaere Ahunga Raru Incident Management Team – Peacetime

The Incident Management Team – Peacetime is a forum made up of IMT functional leads and representation from NZ Police, Te Whatu Ora, Hato Hone St John, and Fire Emergency New Zealand (FENZ). The purpose is to support and strengthen our preparedness for, and effectiveness in, response and recovery. The meeting is held on a fortnightly basis and includes discussion on emerging issues, function and agency partner updates and any special items of interest, such as guest speakers.

Auckland Lifelines Group

The Auckland Lifelines Group (ALG) consists of lifelines organisations in the Auckland region. It is described within the Introduction chapter of this report.

The strong relationships fostered between ALG and the council provide input and support from a lifeline utility perspective both during and outside of emergency events.



Te Rōpū Ruruku Oranga mō Tāmaki Auckland Welfare Coordination Group

The Auckland Welfare Coordination Group (AWCG) consists of welfare service agencies and organisations that provide welfare to affected people and animals during an emergency. Strategic relationships with youth, rural, disabled and culturally and linguistically diverse communities are also managed through this forum. Membership details are contained on the Auckland Emergency Management [website](#)²⁷.

The AWCG, chaired by the Auckland Group Welfare Manager, plans and coordinates the delivery of welfare services by the council and welfare agencies prior to, during and after an emergency. The AWCG reports to the Auckland CDEM Coordinating Executive Group and the National Welfare Coordination Group to ensure that welfare arrangements are coordinated and meet the distinct needs of Tāmaki Makaurau in readiness, response, and recovery.

Welfare responsibilities and operational arrangements include planning and preparedness for establishing and running Civil Defence Centres, refining welfare systems, Tools and procedures, the training and development of staff, volunteers and joint exercising and forums with the welfare agency and specialist community partners.

Te Kotahi a Tāmaki Marae Collective

Te Kotahi a Tāmaki is a collective of mana whenua, mataawaka, taura here and kaupapa marae who are based in and around Tāmaki Makaurau. The collective reinforces marae as recognised centres of cultural excellence and enterprise for our communities. The collective works together to share skills, knowledge and build whakawhanaungatanga (relationships), creating opportunities and transformational change for whānau, hapū and iwi. The council engages with Te Kotahi a Tāmaki as a collective, as well as with individual marae through our Whakaoranga Marae, Whakaoranga Whānau programme.

Northland Adverse Events Team and the Waikato Primary Industry Cluster Group

AEM works closely with both the Northland Adverse Events Team and the Waikato Primary Industry Cluster Groups that are facilitated by the Rural Support Trust (RST). RSTs are funded by the Ministry of Primary Industries to support rural communities and ensure they are well prepared and able to recover quickly from emergencies that impact the rural environment, rural production, and animal welfare. The RST boundaries from Northland and Waikato extend to cover the entire Auckland region.

Auckland Regional Leadership Group

Auckland has an established cross-agency leadership structure that includes both central and local government. Tāmaki Makaurau regional leadership includes, Auckland Regional Leadership Group (ARLG), Auckland Policy Office and Auckland Council. The group meets monthly, and priorities are determined by the group. The ARLG seeks to support and promote more joined-up and collaborative approaches across government in the regions, to address fragmentation and duplication across agencies on cross-cutting issues. The ARLG supports the notion of centrally supported, regionally delivered, and locally led. ARLG will continue to support Auckland Council to ensure the regional social and economic response and recovery planning is supported collectively, particularly across government agencies. Joining up government in the regions is an important part of the Public Service Reform process, intended to improve how the Public Service supports enhanced regional wellbeing.

²⁷ aucklandemergencymanagement.org.nz

Hei aronga mā tātou What we need to focus on

Te Whakamahere Planning

The Group Plan provides the strategic foundation for Auckland’s emergency management functions, including the overarching model for emergency management and the roles and responsibilities involved.

To support implementation of the Group Plan objectives, contingency plans are required to anticipate potential response activities for specific severe and large-scale hazards. These include volcanic, severe weather, flood hazards and tsunami scenarios and for events and impacts, such as concurrent events and evacuation. These contingency plans can be used to inform action planning when in response. It is important to involve partner agencies and active community organisations in planning, training and exercising.

There is a need to participate in national level planning processes, and to support partner agencies with their emergency management planning to ensure plans are aligned and complementary. Nation-wide catastrophic planning includes consideration of how Auckland could provide support to impacted regions, including receiving internally displaced people from these regions.

Te Raukaha me te Āheinga Capacity and capability

All council staff with emergency management responsibilities need to have up to date training in CIMS, and other emergency management training to ensure emergency management staff maintain competence. Disability responsiveness and awareness training is also important to ensure staff are able to meet the needs of the disabled community. Frequent multi-agency operational training exercises to test and continually refine

emergency management capability, will ensure preparedness for more complex scenarios.

Response capacity needs to be extended by recruiting more support staff from the wider council family, including council-controlled organisations (CCOs). The pool of function leads for response is referred to as ‘alternates’. The intention is to maintain a list of alternates that can lead a response function desk at any given time and that these people are supported with appropriate training and opportunities for experience.

Ngā Hononga, ngā Rawa me ngā Pūnaha Partnerships, assets and systems

Effective partnerships, assets and systems mean that everyone involved in the emergency management system can work together seamlessly, with timely information and can operate in a distributed way under central coordination. Work to improve these partnerships, assets and systems supports ‘readiness’ to ensure they are effectively implemented during response.

Key areas for attention are intelligence systems to enable better situational awareness and decision-making and the lifelines and welfare systems to incorporate recommendations from previous reviews. System improvements for lifelines also need to be compliant with national policy, such as the National Adaptation Plan.

System improvements for welfare needs assessments are underway to inform response during an emergency event. This will provide better intelligence, including the needs and locations of vulnerable communities.

AEM already engages widely with its partners and stakeholders as described above. A stakeholder relationship framework setting out the purpose, frequency, and method of engagement by audience would ensure engagement meets expectations and is at a suitable cadence and method for different stakeholders.



Te Mahere Mahi Whakaritenga ā-Whakahaere Operational Readiness Action Plan

	Objective	Actions
Planning	Ensure plans for emergency management in Auckland anticipate and assess a range of significant potential hazards and events and set out clear approaches to managing them.	7. Undertake risk reduction activities such as contingency plans, focused on high priority hazards and complex events/impacts. Ensure plans are readily accessible, clearly communicated, exercised and well understood by staff and operational partners.
		8. Contribute to national level plans and exercises on catastrophic nationwide and cross-regional event planning and support regional partners with emergency management planning.
Capability and Capacity	Ensure the people involved in Auckland's emergency management system have the capabilities they need to support effective response and recovery.	9. Deliver a multi-agency exercising calendar on an ongoing basis. Ensure exercises are overseen by independent observers and appropriate agencies participate.
		10. Provide emergency management training appropriate to roles and levels, including: <ul style="list-style-type: none"> • foundation emergency management training to all permanent new council staff, alongside CIMS training (to the appropriate level) for key functions and staff with emergency management accountabilities • complete CIMS training for all AEM staff • controllers complete new, specific controller and CIMS leadership training • continued use of the RRANZ pathway for crisis leadership training of AEM staff, and exploration of other potential programmes • full accreditation of New Zealand Response Teams • recovery specific training as it becomes available • domestic and international deployments as appropriate • disability responsiveness.

Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
Completed contingency plans. Schedule of exercises testing contingency plans once developed.	Priority hazard scenarios are well understood, and planning is well informed by data, forecasting and modelling. AEM and partners are well prepared to respond to different hazards and events.	AEM	CEG partners Wider council including CCOs
Reported participation in national planning activities and exercises and contribution to partner agency planning.	National level plans, processes and exercises reflect the Auckland regional context and risk profile for possible hazards and events. Partner agencies have the necessary plans prepared, tested and ready to put into action before emergency events occur.	AEM	CEG partners
Reported schedule of completed exercises and findings of independent observers.	Regular exercises will test different elements of the emergency management response, linked to different hazards and different scale events. Areas that can be strengthened to deliver improved readiness and performance during real-life events will be identified and implemented as appropriate.	AEM	CEG partners Wider council including CCOs
Documented schedule of training for staff and volunteers.	Suitably trained, competent, qualified, and experienced emergency management staff across council, to support emergency response.	AEM	NEMA CEG partners Other CDEM Groups



Te Mahere Mahi Whakaritenga ā-Whakahaere Operational Readiness Action Plan

	Objective	Actions
Partnership, Assets and Systems	Ensure the right strategic and operational partnerships, equipment and assets and supporting systems are in place and ready to support response and recovery efforts.	11. Develop and maintain a relationship management framework that outlines the purpose, method and frequency of engagement with key stakeholders. Develop and maintain relationships in line with the framework.
		12. Develop and implement a technology strategy to enhance response GIS and operational capabilities and strengthen situational awareness. The strategy should focus on: <ul style="list-style-type: none"> gaining Information and Communications Technology (ICT) autonomy capacity building collaboration and communication data sharing and stakeholder connectivity real-time data integration in a digital twin for the Auckland region national advocacy for common incident management platforms to support multi-agency collaboration supporting effective transition from response to recovery.
		13. Enhance Welfare function capability by developing and implementing: <ul style="list-style-type: none"> a needs assessment tool in partnership with NEMA an ongoing work programme for the Auckland Welfare Coordination Group addressing recommendations from previous reviews.
		14. Identify and mitigate gaps in Lifelines planning and systems, ensuring alignment with national policy
		15. Monitor and maintain operational plant and equipment including communication tools, alerting and warning systems, fleet and buildings and related facilities. Incorporate new technologies as appropriate.

Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
Completion of relationship management framework. Engagement in line with framework to increase breadth and strength of relationships.	Relationships are strengthened before an emergency occurs. Engagement meets expectations and is at a cadence and via method(s) that work best for different audiences.	AEM	
Completed strategy. Subsequent actions included in work programme approved by CEG and Committee.	A significant uplift in capability to build the operational picture that will support better situational awareness and decision-making. An incident management system not limited by geographical or administrative borders, more easily integrated with national partner agency systems.	AEM	CEG partners Wider council
Completed development of needs assessment tool. Completed work programme and associated progress.	Safe data management and a clear flow of information through to Operations in response, so that needs can be identified and addressed systematically.	AEM	NEMA
ALG has a comprehensive and fully funded work programme agreed with members. Key infrastructure vulnerabilities are identified. Real-time information sharing arrangements are in place.	Opportunities to reduce the vulnerability of lifelines in Auckland are identified and able to be built into the appropriate plans.	Resilient Land and Coasts	AEM
Frequent monitoring and timely correction of identified issues. Proposal for acquisition/upgrade of technological capabilities.	Operational assets are functional and ready to support response. Technological response capabilities are fit-for-purpose and up to date.	AEM	Group Services (ICT, Corporate Property, Fleet). Parks and Community Facilities

Ngā Mahi e Takatū ai te Hapori Community readiness activity

Te Mōhiotanga o te Hapori Public awareness

Auckland Council is dedicated to ensuring that all Tāmaki Makaurau communities are informed, prepared, and resilient to emergencies. This includes educating and raising awareness about the hazards, risks and impacts they may face and how to be prepared for, respond to and recover from an emergency.

Our approach to public awareness is informed by the National Disaster Resilience Strategy (NDRS) and national guidance provided by NEMA which aims to empower Aucklanders to take responsibility for their emergency preparedness, and to embed preparedness as part of everyday life. We do this by:

- promoting hazard preparedness, understanding of risk and risk reduction through hazard awareness campaigns such as the Summer Storm campaign, Tsunami hīkoi week, and the New Zealand ShakeOut and Flood campaigns
- developing public education material closely with community networks and leaders and delivering it to communities, such as the New Zealand Sign Language 25 signs to learn before emergencies
- active engagement and sharing of preparedness messages through our social media channels
- regular press releases and media updates to keep Aucklanders informed about the latest initiatives and encourage taking steps to get prepared
- keeping our website up to date with information on an accessible, easy to navigate platform
- monitoring and evaluating the preparedness of Aucklanders through our bi-annual preparedness survey.

Key messages for the public about how to be prepared are provided below.

Emergencies can happen anytime, anywhere – the best thing you can do is make sure you are prepared

- Know your hazards: learning about the hazards that can occur in your community, and the impacts they can cause. This will help you work out what steps you can take to reduce any impacts and get prepared. Check out the **Auckland Hazard Viewer**.
- Know how to stay informed: it is important to know the different ways you can stay informed during an emergency, which radio stations to listen to, which websites and social media to follow, the importance of getting to know your neighbours, and checking if you can receive Emergency Mobile Alerts.
- Make emergency plans: a whare / home emergency plan lets each member of a household know what to do in an emergency and how to be prepared in advance. If you or someone in your whānau has special requirements or is disabled, you will need to include their requirements in your plan for emergencies.
- Have emergency supplies: in an emergency you could be stuck at home without basic services such as electricity, gas, drinking water, flushing toilets and phones for days or even weeks. Think about what you will need in an emergency and plan ahead.
- Prepare your workplace: take the time to do a Business Continuity Plan to ensure your workplace is able to keep providing its core services during an emergency. This includes connecting with other local businesses to get support during an emergency.
- Volunteer to help during an emergency. If you can, consider supporting your community during an emergency. Different communities may have community resilience plans.

Te Whakawhanake i te Manawaroa o te Hapori Community resilience building

To deepen the public awareness work described above, AEM works with communities to build disaster resilience using a community-led empowerment model and an evidence-based approach. The NDRS defines disaster resilience as the ability to anticipate and resist the effects of a disruptive event, minimise adverse impacts, respond effectively, maintain, or recover functionality, and adapt in a way that allows for learning and thriving.

The NDRS states that everyone has a role to play and to work together to manage risk and build resilience. Given the size and complexity of Auckland, this work is delivered through many formal and informal partnerships and collaborations with others throughout all levels of community, business and government who share the council's interest in building the resilience of communities and businesses. AEM's resilience work also contributes to national and council level strategies associated with preparing communities for the impacts of climate change.

It is important to note that our interventions are not designed to address underlying causes of vulnerabilities that might undermine disaster resilience, but rather to prioritise those that may be more susceptible to the impacts of the hazards.

Using the International Association for Public Participation framework, our community resilience work is targeted at whakawhanaungatanga (community engagement) then collaboration and finally, empowerment for local action.

AEM collaborates and supports communities to carry out disaster resilience planning using a framework that includes 8 'Rs'. This includes the traditional 4 'Rs' (Reduction, Readiness, Response and Recovery) plus Reach (to audiences less engaged), Relationships (build and maintain

relationships), Relevance (form and type of the engagement is inclusive and accessible) and Receptiveness (understanding community complexity and recognising community capabilities and needs). This expanded framework is used to respond to the size, complexity and diversity of Tāmaki Makaurau. This enables more targeted and effective engagement and empowerment, ensuring greater behaviour change and more resilient communities.

The principles underpinning our community disaster resilience work are to:

- focus on empowering communities to work to their strengths so they can better address their resilience challenges and vulnerabilities
- ensure that initiatives are designed, owned and led by communities so they are relevant to their needs and values as well as the unique context of each community
- recognise and celebrate diversity as a key feature in the design of initiatives so that communities can foster and build on their unique identity as they adapt and develop
- be responsive to Māori in ways that create better outcomes for Auckland's Māori communities (also refer Mana whenua and Mataawaka Partnership chapter)
- take an evidence-based approach to building community resilience incorporating best practice from across New Zealand and overseas, while making sure initiatives are community-led
- maximise opportunities to collaborate with others to reach a larger number and wider diversity of people
- take a flexible approach to meet the needs of the three types of community we work with most (geographic, population or community of interest), described further below.

Geographic or place-based community

eg **Local board work** **Geographical hazard-based work** **Rural communities**

Relational or population-based community, representative of Auckland's super diversity

eg **Iwi and Māori** **Pacific Peoples** **Older people** **Disabled People**
Culturally and Linguistically Diverse (CALD) **Tamariki and rangatahi**

Community of interest (have friendships, or a sense of having something in common)

eg **Business communities** **Religious communities**

Figure 7 The communities of Tāmaki Makaurau

We co-create and deliver varied initiatives that support and empower communities to independently strengthen their disaster resilience. Recognising one size does not fit all provides a greater ability for AEM to effectively respond, adapt, and adequately scale up to meet the needs of Auckland's growing and diverse population. A range of initiatives we have recently co-created are:

- resilience planning process templates – these can lead to community resilience plans (created, owned and activated by communities and in a range of forms and sizes)
- training (community scenario exercises)
- workshops (business continuity, Kotahitanga preparedness)
- events (community events with stalls and interactive activities, often in partnership with our emergency response teams and partner agencies)
- educational (Guides and Scouts badges, Kia Rite Kia Mau)
- resources that are many and varied, by topic or hazard and by language (language weeks, resources in cultural languages, bilingual story books, business continuity guides and templates)
- literature reviews to inform strategic direction (disability)

- guides (religious communities, community emergency hubs)
- handbook (rural lifestyle communities)
- gamification (What's the Plan Stan augmented reality game).

Hei aronga mā tātou What we need to focus on

For Auckland to increase its resilience to emergencies, individuals, communities, and businesses need to be aware of, prepare for, and manage the risks that may affect them. There is an ongoing need to communicate, educate and partner with communities and organisations to improve and empower their readiness for events.

Building resilience across Auckland's super diverse communities requires broad engagement, relationships and partnerships. It also requires empowerment and inclusive, accessible participation, paying particular attention to people disproportionately affected by disasters. Children and young people are especially vulnerable to disasters and the effects of disasters can have long lasting impacts on their development. There are opportunities to build our young people's resilience to disasters through participation in emergency management activities²⁸.

²⁸ Impacts of Natural Disasters on Children, Carolyn Kousky (2016): There are three ways that natural disasters can impact children and young people. One, disasters can impact on a child's physical health, two, disasters can cause mental health problems and three, disasters can interrupt children's education.



Kia rite, Kia Mau in action

The National Disaster Resilience Strategy acknowledges that while many people and groups may face challenges in their everyday lives, there is also tremendous capacity and capability. The NDRS encourages working with disabled people, children and youth, culturally and linguistically diverse communities and rural communities to support their resilience.

There are varying levels of hazard awareness and preparedness across Auckland. Surveys carried out by the council show that community preparedness for an emergency needs improvement²⁹. The challenge in lifting community readiness is amplified by such a diverse population at different levels of risk from hazards, with varying needs. This diversity means we need to use different approaches, languages and channels to deliver emergency management

messages, education, and support. AEM cannot deliver this alone – we need to work closely with the wider council and other agencies and partner with communities to support them to be ready.

Focus activities for supporting community readiness will be the development of local board readiness and response plans, community resilience plans, a communications plan, and partnership with community organisations. Local board readiness and response plans will be led by Auckland Emergency Management, while community resilience plans are community led. Key supporters and potential funders of community resilience plans are local boards. Alternative funding streams outside Auckland Council are also available.

Section 4 of this plan further describes the approach to working with mana whenua and mataawaka in Tāmaki Makaurau to build resilience.

²⁹ Auckland Emergency Management. (2022, December). Customer Experience Report.



Te Mahere Mahi Whakaritenga ā-Whakahaere Community readiness action plan

Objective	Actions
Fairly and equitably build resilient, adaptive, and self-reliant whānau and communities who: <ul style="list-style-type: none"> • understand hazards • take action to reduce their local hazard risks • are prepared for residual risk and impacts, and • have strong, positive, and inclusive social connections so they are able and willing to effectively support each other during and after an emergency. 	16. Work with Local Boards to prepare, communicate and test Local Board Readiness and Response Plans that identify: <ul style="list-style-type: none"> • local hazards • how to prepare for emergencies • how to evacuate and where to go • useful contacts in an emergency.
	17. Encourage and support communities to develop their own community resilience plans, in particular those communities who have the capacity and capability to establish and run community emergency hubs.
	18. Develop an evidence based communications plan to support community awareness, engagement and preparedness that is tailored to Auckland’s diverse communities.
	19. Partner with community organisations supporting those communities that may be disproportionately impacted by disasters, to support their preparedness for emergencies.

Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
Completion of 21 Local Board Readiness and Response plans. Community preparedness survey results.	Local readiness supports local response that is regionally coordinated from the ECC. Auckland’s diverse communities have increased levels of preparedness for emergencies.	AEM	Local Boards Connected Communities Mana whenua and mataawaka
Completed community resilience plans. Community preparedness survey results.	Auckland’s diverse communities have increased levels of preparedness for emergencies.	Communities and individuals (not Auckland Council led)	AEM Local Boards CEG Partners
Completed communications plan and delivery of associated actions.	Auckland’s diverse communities have increased levels of preparedness for emergencies.	AEM	Corporate Communications Connected Communities
Confirmed partnership agreements	Auckland’s diverse communities have increased levels of preparedness for emergencies.	AEM	Connected Communities Local boards Community organisations CEG Partners

7 Te Urupare Response

Response describes the actions taken immediately before, during, or directly after an emergency that saves lives, protects property, and supports communities to recover. Response ends when the response objectives have been met or a transition to recovery has occurred. Auckland Emergency Management will lead the coordination of response activities for geological hazards (e.g. earthquake, tsunami, volcano, landslide), meteorological (e.g. floods, severe wind) and infrastructure failure (e.g. large scale power outage).

Response activities must be timely and effective to ensure the:

- safety and wellbeing of people
- preservation of life
- prevention of escalation of the emergency
- maintenance of law and order
- provision of safety and security measures for people and property
- care of sick, injured, and dependent people
- provision of essential services
- preservation of governance
- protection of assets, including buildings and their contents and cultural and historic assets
- protection of natural and physical resources and the provision of animal welfare (to the extent possible in the circumstances)
- continuation or restoration of economic activity
- recovery measures are planned for and implemented, from the first day of the emergency
- preservation of trust and confidence in AEM and Auckland Council.

Te Urupare i roto o Tāmaki Response in Tāmaki Makaurau

The AEM response framework is guided by national legislation, strategies and guidelines including:

- the CDEM Act
- National Disaster Resilience Strategy
- National Civil Defence Emergency Management Plan Order 2015 and its accompanying Guide
- Director’s Guidelines
- Coordinated Incident Management System (CIMS).



Loading supplies for isolated communities following Cyclone Gabrielle

Te Āhua o te Urupare Response Structure

Coordinated Incident Management System

AEM structures the response to emergencies on the CIMS framework. The purpose of CIMS is to enable personnel to respond effectively to incidents through appropriate coordination across functions and organisations by:

- establishing common structures, functions and terminology in a framework that is flexible, modular, and scalable so that it can be tailored to specific circumstances
- providing organisations with a framework they can use to develop their own CIMS-aligned processes and procedures that support both own-organisation responses and multi-organisation interoperability. In doing so, giving consideration to each organisation’s unique responsibilities, resources and legislative authority.³⁰

Ngā Tāumata Urupare Response levels

CIMS provides a framework of five different response levels, ranging from the community level through to the national level, which correlates to the scale, complexity and/or consequences of an incident. The majority of incidents will be at the incident level (e.g. a road traffic accident) while only the largest scale incidents will be at the national level (e.g. Cyclone Gabrielle).

In response, everyone has a role to play. This is why the community level is recognised in the framework. Individuals, communities, and businesses may self-respond and take action to save and protect themselves if they are in imminent danger. Once the threat has passed, there are many ways in which individuals, communities and businesses can help. This may involve assisting at their local community hub, reaching out and checking on neighbours, or registering their services with existing volunteer agencies.

³⁰ Officials’ Committee for Domestic and External Security Coordination. (2019, August). Coordinated Incident Management System (CIMS) Third Edition, 1.1.



Figure 8 – Response levels and relationships sets out the nationally recognised response levels. Auckland Council operates at both the local and regional levels through the Emergency Coordination Centre (ECC). There are currently no established Emergency Operation Centres (EOC) within our response structure. This is considered further through the Response Action Plan.

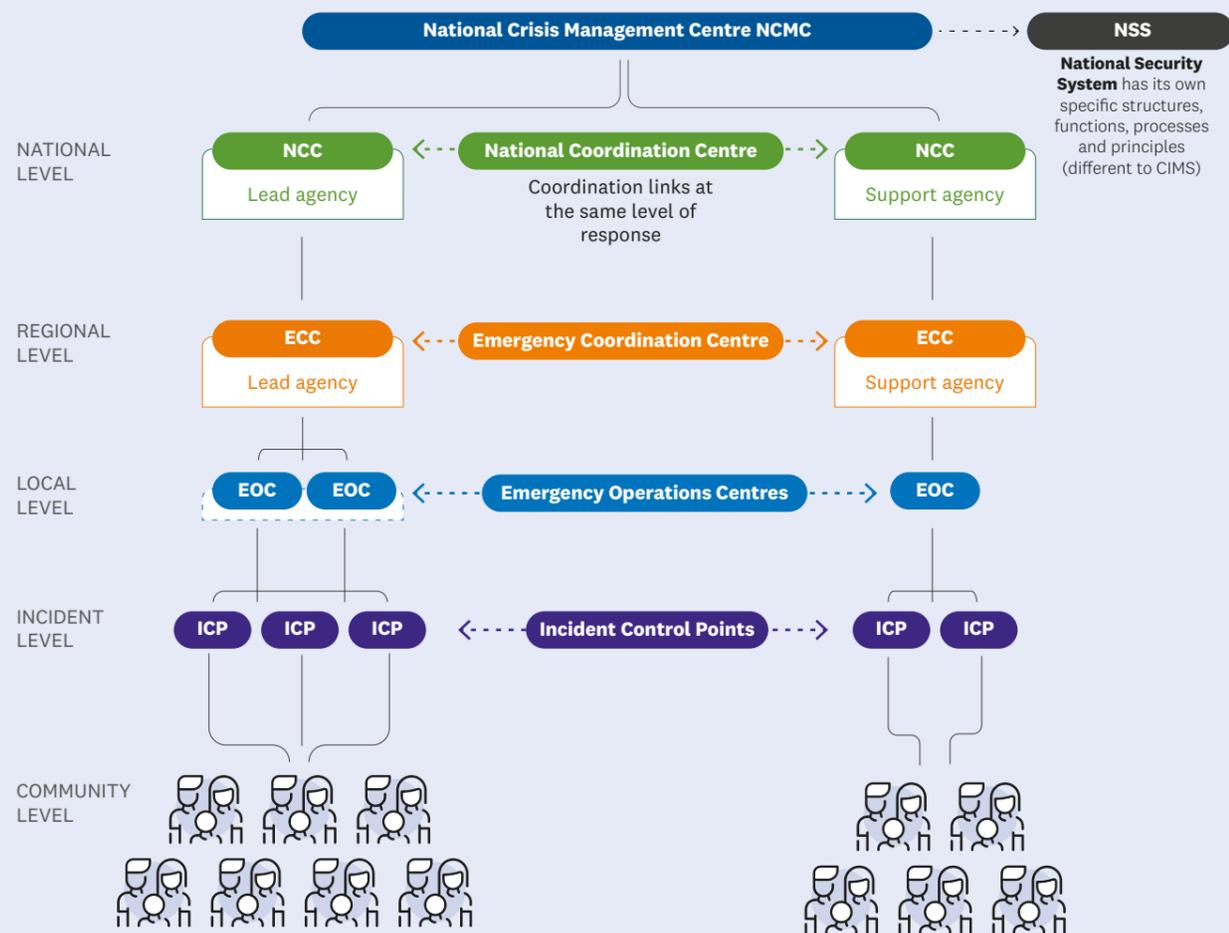


Figure 8 – Response levels and relationships

Te Tautohu i te Taumata o ngā Ahunga Raru Incident classification

The classification of an incident is determined by the Controller. This provides a common language with which to communicate the complexity and severity of an incident and the likely level of response required to manage it. An incident classification will indicate the potential consequences and impacts, resources required, likely political and media interest, and response and recovery characteristics³¹. The four incident classifications that can apply to a response at any level are outlined in [Appendix D](#).

Te Rōpū Whakahaere Ahunga Raru The Incident Management Team

AEM uses the CIMS framework to divide the responsibilities for response activities into common functional roles, established as required, that operate in a networked hierarchy. This collective group is known as the Incident Management Team (IMT). The IMT is scalable to reflect the resourcing needs of the incident³². The control function assumes overall responsibility for all activities and personnel involved in the response and coordinates and manages the response objectives with organisations, communities, and people responding to or affected by the incident. An overview of the IMT structure for Auckland is shown in [Figure 9](#). Descriptions of the CIMS functions, including responsibilities are provided in [Appendix E](#). An up-to-date schedule of key appointments within the structure is on the [Auckland Emergency Management website](#)³³. Refer to [section 9](#) for information on the role of management and governance in response.

³¹ Officials' Committee for Domestic and External Security Coordination. (2019, August). Coordinated Incident Management System (CIMS) Third Edition, 3.2.

³² Officials' Committee for Domestic and External Security Coordination. (2019, August). Coordinated Incident Management System (CIMS) Third Edition, 4.1.

³³ aucklandemergencymanagement.org.nz

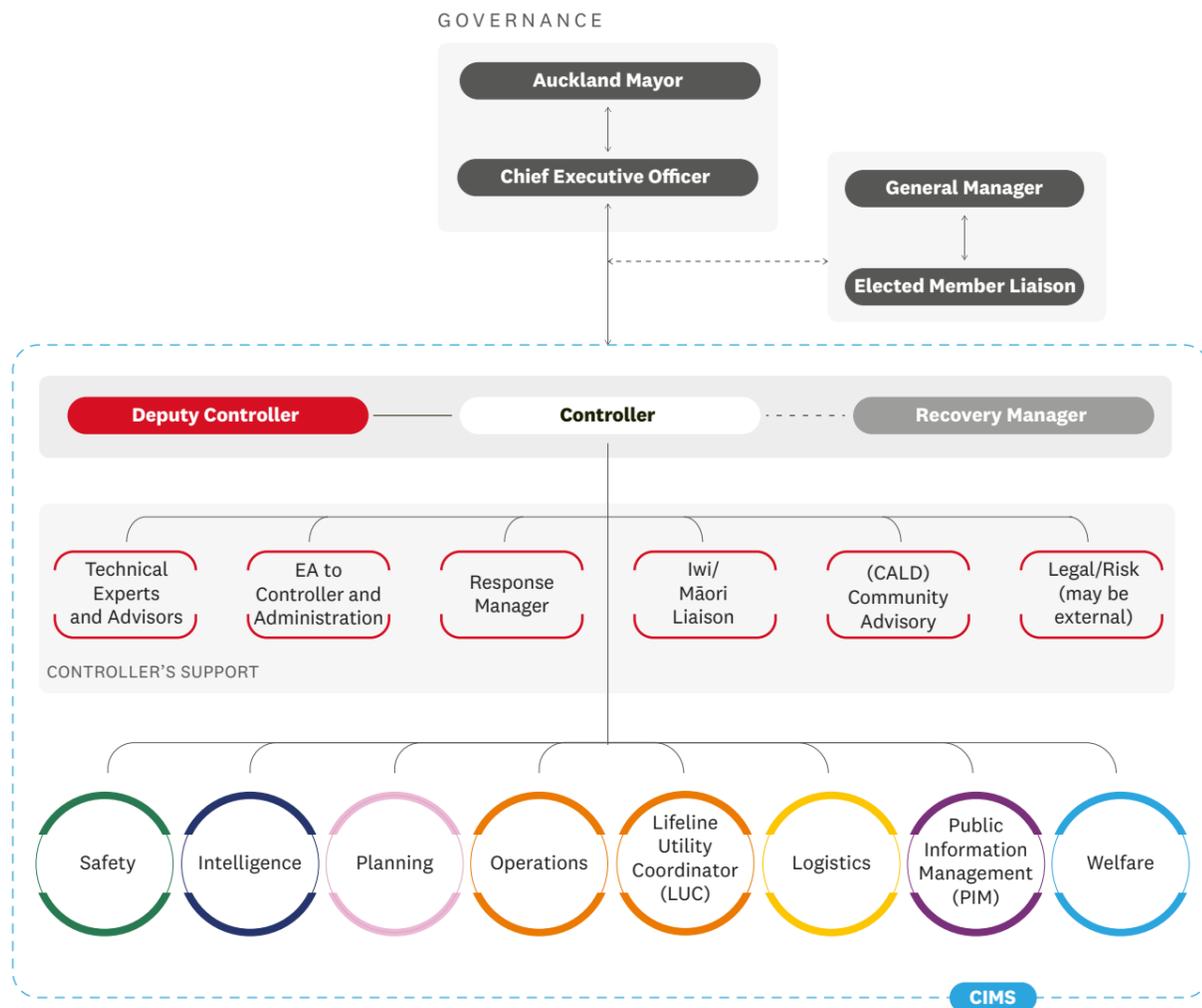


Figure 9 Auckland Emergency Management Response Coordination Structure (subject to change as required)

AEM’s response coordination structure outlined in **Figure 9** enables clear lines of communication with key stakeholders and partners during response. For example:

- The PIM function is responsible for media liaison and public messaging generally
- The Welfare Manager is the key point of contact with welfare agencies, non-government organisations and community-led response activities, providing social support to communities
- Local boards and elected members are key conduits to and from the community, through elected member liaisons
- Iwi-Māori Liaison is the key point of contact for Māori communities and ensures their interests are being represented. This function includes the subfunctions of Pou Aawhina (administrative support), Pou Tikanga (to weave tikanga Māori across all pou and other functions) and Pou

Wirinaki (outreach activities) to enhance the coordination of response relationships with mana whenua and mataawaka

- Culturally and Linguistically Diverse (CALD) Community Advisory is the key point of contact for culturally and linguistically diverse communities and also provides cultural advice to the Controller
- CEG partners are connected to the response via the Operations liaison or Lifelines Utility Coordinator. Executive level CEG representatives may also be connected at the governance/strategic level
- Auckland Council’s Governance communicates with the response through the General Manager and Elected Member Liaison (if activated), supported by the PIM team and the Controller, unless under a local declaration, in which case communication is with the Controller, supported by the General Manager.



Inside the Emergency Coordination Centre during response

Te Tukanga Urupare Response process

Te Aroturuki me te Mahi Tuatahi Monitoring and initial action

AEM operates a 24-hour Duty Team consisting of a Duty Officer and Duty Manager. These roles are supported by an on-call Group Manager, Duty Controller and Duty PIM Manager, where escalation is required.

The Duty Officer and Duty Manager actively monitor and coordinate the initial response to an incident (whether that be a sudden or gradually escalating event at the local, regional or national level) using standard operating procedures (SOPs), which guide the appropriate initial actions. This may include the dissemination of initial warnings and alerts internally and to the public (email or text alerts to key stakeholders and social media posts in the event of forecast severe weather) and briefing the Assessment Action Group, made up of the Group Manager, Duty Controller, Duty PIM Manager, and if

required, a hazard advisor (for example, a technical expert in the event of a tsunami) who in turn determine the activation mode.

The activation mode may necessitate the IMT to be mobilised and the Emergency Coordination Centre (ECC) to be opened. This is where response operations will be coordinated. SOPs guide the IMT functions during the initial stages of mobilisation to ensure all appropriate processes are considered and where necessary, executed.

During an emergency, the Controller, with assistance from the PIM function is responsible for providing accurate and timely information to the public. This is achieved across a broad range of media, and will correspond appropriately to the scale of the emergency.

The response is managed using the application of CIMS, as previously described. The transition from response to recovery is instigated by the Controller, with the support of the Recovery Manager, described further in the recovery section of this plan.

Te arataki me te tautoko i ngā pokapū hei urupare

Lead and support agencies in response

A range of agencies are responsible for managing various hazard responses and AEM can play both a lead or a support role, depending on the type of hazard. These roles are set out in the National Civil Defence Emergency Management Plan Order 2015.

The lead agency is the agency mandated through legislation or expertise for managing a particular hazard that results in an incident. AEM is the lead agency at the local and regional level for geological hazards (e.g. earthquake, tsunami, volcano, landslide), meteorological (e.g. floods, severe wind) and infrastructure failure (e.g. large scale power outage). During a national event, some lifeline utilities are also coordinated centrally by Sector Coordinating Entities reporting to central government agencies.

The support agency provides support to the lead agency. AEM is the support agency for a range of hazards including droughts, pandemic and fire. A comprehensive overview of lead agencies by hazard is included in [Appendix F](#), alongside case studies that demonstrate how lead and support agencies have worked together to respond to recent events.

Te Tauākī i te Tūohotata ā-Rohe

Declaring a state of local emergency

Declaring a state of emergency provides access to powers that would not normally be available. These include but are not limited to: the evacuation of premises and places, entry onto premises, closure of roads and public places, the removal of aircraft, vessels and vehicles.

Response activities can and often do take place without declaring a state of emergency. Controllers are guided by the NEMAs Factsheet and Quick Guide³⁴. Further detail on the declaration process is contained within the Management and Governance section.

Lessons management and debriefs

A systematic and structured approach to lessons management leads to improved operational effectiveness, reduced operational risk and increased cost efficiency. Consistent approaches to lessons management encourages adaptability and flexibility across the system and sharing of knowledge and experiences, resulting in a significant increase in performance and better outcomes.

AEM leads lessons management and debriefs at the end of any response involving those agencies and personnel involved. The purpose of this is to:

- examine the scope and appropriateness of the operational response
- determine the strengths and weaknesses in the teams or the organisation's structures, systems and processes
- identify and make incremental improvements to processes and practices to improve our ability to coordinate emergency response.

Outcomes are communicated to all relevant stakeholders and partners and opportunities for improvement are then implemented. Debriefs also provide an opportunity to thank people who supported the response.

Ngā Rawa Urupare me ngā Rauemi Urupare

Response assets and resources

Te Aroturuki i te Pūāhua

Situational awareness

The Duty Team and IMT have access to a range of tools and resources to gain situational awareness of potential threats and warnings including:

- MetService - satellite imagery, computer modelling and contracts for weather forecasting
- Hydrotel system - a network of remote stations that monitor rainfall, river flows and lake levels throughout the region. Hydrotel allows the Duty Team to review hydrological data and sends alerts based on defined thresholds
- MOATA system - provides a visual overview of rainfall across the region and reports on locations, types and number of requests for service being received by Auckland Council contact centre for issues related to stormwater flooding. It also shows all stream gauges and rain radar depths in real-time across the region
- GeoNet - a platform operated by GNS Science, which monitors earthquake, volcanic, landslide and tsunami activity within and around New Zealand
- Pacific Tsunami Warning Centre (PTWC) issues a tsunami information bulletin when an earthquake reaches tsunami generating thresholds
- Geospatial Response Intelligence Platform (GRIP) brings together information feeds from multiple agency partners which can be augmented with field observations. Includes the Waka Kotahi NZTA motorway cameras and live traffic updates
- other geospatial tools developed to show social statistics of an affected area to help understand more about the communities impacted
- media (traditional and social).

Ngā Utauta Whakawhitiwhiti

Kōrero Ohotata

Emergency communication tools

The ability to effectively communicate in the lead up to, during and after an emergency is critical. Mobile phones, including mobile phone apps, Microsoft Teams and Outlook (email) are the usual and primary means of communication. AEM also maintains alternate communications including:

- satellite phones for major operational and governance roles, and in key locations
- VHF radios
- Broadband Global Access Network (BGAN) units, portable satellite terminals that can connect any laptop, smartphone or wireless device for internet and phone capability
- Amateur Radio Emergency Communications (AREC) a volunteer organisation that supports communications for search and emergency events.

³⁴ National Emergency Management Agency. (2023, January). Quick Guide: Declaring a state of local emergency. Retrieved from civildefence.govt.nz/assets/Uploads/publications/Declarations/Quick-Guide-to-declaring-a-state-of-local-emergency.pdf [date accessed: 28 April 2023].

Ngā Whakatūpatotanga me ngā Whakaaraara

Warnings and alerting

Warnings and alerts are notifications used to advise agencies, authorities and the public of potential or actual emergency events, so they can support timely mobilisation of resources and an effective response. These notifications can be distributed through the monitoring and initial action phase by the Duty Team, or, once the IMT has been activated, it can be done by the PIM function, under the direction of the Controller.

AEM uses multiple channels to send warnings and alerts before, during and after emergency events. No one channel will suit every situation or every person, so multiple channels may be used to make sure the target audience receives the information they need. Examples of warnings and alerts include targeted text and email distribution lists, social media, website updates, localised warnings such as emergency mobile alerts (EMA)³⁵, radio, television and in some localised cases, sirens.

NEMA is responsible for providing national warnings and alerts about natural hazards to local CDEM Groups, central government authorities, local authorities, emergency services, lifeline utilities, and broadcasters.

Te Tari Ruruku Ārai Raru Ohotata Emergency Coordination Centre

An Emergency Coordination Centre (ECC) is an established and equipped facility where a response to an incident can be coordinated or supported by the IMT, supporting personnel and agencies. The ECC is structured on the CIMS functions and roles and the number of personnel in the ECC will be dependent on the scale of the emergency.

AEM maintains an ECC and two alternate facilities. Each of these sites have onsite generators to increase their resilience to power outages that could occur during an emergency.

Ngā Kaimahi Personnel

Support from within the group

While most function manager roles are held by emergency management professionals within AEM, support is required from the Auckland Council whānau to attain the appropriate depth of personnel. Several of the persons who have been appointed to act in the absence of the Group Controller and/or the Recovery Manager are senior council staff, with appropriate training and experience. These roles are statutory requirements and are often held by practitioners with significant experience. AEM also has Auckland Council Emergency Support (ACES) staff from various parts of the council who have received foundational emergency management training and who have indicated an interest in supporting a response. Tasking of these staff depends on their previous training, skills, and experience.

The activities of some operational units of the wider Auckland Council overlaps directly with support requirements of AEM during a response. These include arborists, who deal with fallen or unsafe trees, and Healthy Waters, with responsibility for waterways and the stormwater system. The council's standard processes for handling reports of hazards to the public continue when AEM is activated, and these operational units continue to triage and respond. The Operations function of CIMS in response will coordinate any specific assistance required, and daily reports of Requests for Service are provided via the Intelligence function to ensure the response has visibility of the event's impacts.

Support from outside the group

An emergency in Auckland may require resources from other CDEM Groups, stakeholders, and partners. Staff from other CDEM Groups may be deployed into Auckland to assist as required. The national New Zealand Emergency Management Assistance Team (EMAT) can be deployed into Auckland to assist with an emergency response at short notice. A major emergency in New Zealand may generate offers of international assistance or necessitate requests for international support from New Zealand. International agencies responding to emergencies in New Zealand will be coordinated by the National Controller through the National Crisis Management Centre (NCMC).

Volunteering support

The efforts and abilities of volunteers have the potential to significantly enhance our response capabilities in an emergency. The coordination and management of the volunteers in an emergency will be done through the ECC and using the Director's Guidelines for Volunteer Coordination³⁶. Importantly, the IMT structure includes a volunteer coordination role under the Operations function.

We may work with the following groups of volunteers in response:

- Māori Wardens - Coordination with the National Māori Wardens Response Team is undertaken through the Iwi-Māori Liaison function. Māori Wardens have well-established relationships that enable them to work closely with whānau, Māori organisations, community groups and government agencies, making them a valuable response resource. The strength of Māori Wardens is their intimate knowledge of, and close connection to their local communities. The guiding principles of a Māori Warden are respect, awhi, aroha, and whanaungatanga. There are approximately 300 Māori wardens in Tāmaki Makaurau

- affiliated volunteer organisations, including:
 - New Zealand Response Teams (NZ-RTs): provide qualified responders to support Civil Defence Emergency Management Groups and their communities during an emergency event. Team members work alongside and assist the emergency services and other responding agencies. Two nationally registered NZ-RTs serve the Auckland Region (NZRT-3 in West Auckland and NZRT-5 in North Auckland)
 - NZ Red Cross Disaster Welfare Support Teams (DWST): volunteers trained to offer comprehensive first aid and psychological and welfare support to communities during an emergency. AEM can seek assistance from DWST to work alongside the Welfare team in a Civil Defence Centre or for community outreach. With over 300 trained disaster response volunteers nationally, DWST can be deployed to provide essential support to the community
 - Amateur Radio Emergency Communications (AREC): the public service arm of the New Zealand Association of Radio Transmitters (NZART) formed by members who are individually licensed amateur radio operators. They are a national volunteer not-for-profit registered charitable organisation providing radio and technology communications services all over New Zealand that establish and deliver communications wherever and whenever a search or emergency event may be.
- volunteers who have emergency management training (local community groups)
- spontaneous volunteers – community members who perform or offer to perform emergency management related tasks during response and recovery, in the spur of the moment.

³⁵ Further information about EMA is available at getready.govt.nz/en/prepared/stay-informed/emergency-mobile-alert

³⁶ National Emergency Management Agency. (2013, November). Volunteer Coordination in CDEM. Director's Guideline for Civil Defence Emergency Management Groups [DGL15/13].



Hei aronga mā tātou What we need to focus on

Hanganga Urupare me ngā Tukanga Urupare Response structures and processes Ngā

The council applies the CIMS model for managing responses. Within this model there is a need to revise standard operating procedures for emergency responses so that it is clear who is responsible for what in response, and how response activities should be carried out. SOPs should:

- address the initiation of IMT
- detail response arrangements for all CIMS function desks
- have sufficient information on core processes, decisions and decision criteria, escalation trigger points, and handovers
- integrate lessons identified through debriefs
- outline the process and roles for response communications
- outline key relationships with partners and stakeholders
- reflect the decision-making process regarding the use of a physical, virtual or hybrid Emergency Coordination Centre.

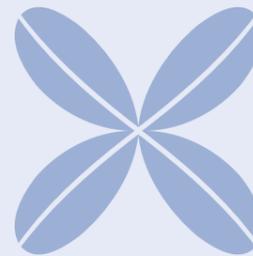
Due to the size and scale of Auckland, responding from a centrally located ECC can present difficulties in terms of understanding local impact and coordinating local response. We need to work with our partners to determine the most appropriate option to address this.

Ngā rauemi hei urupare Response resources

Enhancing our ability to stand up, staff and provide supplies to a predetermined list of civil defence centres and shelters for large-scale emergencies is crucial. The size of Auckland makes doing so at short notice a more difficult task. Strategic preparation for this, informed by local knowledge, will enhance response, and the support these facilities provide the public. We will consider a range of facilities, from those owned, managed and leased by the council in the Parks and Community Facilities portfolio, to partner agency buildings and, where approved by the local hapū or iwi, marae buildings.

Predesignated supply depots and means of transport are also required to be confirmed before an emergency, to support the effective functioning of civil defence centres and shelters. A range of transport modes should be considered, including bikes, where safe and appropriate.

Community emergency hubs are also stood up by active engaged community members. As we work with our communities to understand where these are, and the support they can provide in response, this information will form a useful picture of the full range of centres available to the public.



Te Raukaha Urupare Response capacity

Managing and delivering all aspects of a response effectively, requires AEM to rapidly deploy its own staff, but also to mobilise a wider surge workforce comprising staff and volunteers in the wider Auckland Council family and other agencies, as well as community volunteers.

Maintaining access to the right level of response support and deploying them to appropriate areas is critical in enabling response activities to be delivered in a timely way, and to manage the workload and wellbeing of people involved in the response. It is also important that staff from the wider council family with specific cultural and language skills are encouraged and supported to participate in response, to meet the needs of Auckland's diverse population.

This action area is linked to the capability section under Readiness, which ensures that the right people have up-to-date and relevant training to ensure they can be deployed in a response when required.

Ngā Whakawhitiwhitinga Kōrero i te Urupare Response communications

We need to improve the effectiveness of response communications, through clarifying roles and responsibilities, lifting capability, and resourcing to support emergency communications. In addition, supporting the mayor and elected members to communicate to the public in a response, including declaration of a state of emergency. Communication methods need to be accessible to meet the needs of our diverse communities, and remain current with emerging technologies.



Landslide impacting transport infrastructure



	Objective	Actions
Response capacity	Auckland's emergency management system can access the right people at the right time to support effective responses and considers staff wellbeing before, during and immediately after an event.	23. Grow the capacity of response personnel by leveraging the skills and resources of the council and CCOs to provide additional resourcing across all CIMS functions.
		24. Develop a volunteer framework addressing recruitment and retention, training, health and safety and use of volunteers in response.
		25. Create and implement a wellbeing response plan that captures staff deployment, staff capacity, working hours and support services. Ensure the plan covers all response staff, including those within the ECC and those deployed elsewhere.
Response communications	The model for communications in a response is clear and supports timely and effective delivery of information to the public, decision-makers, partners, and elected members.	26. Maintain a broad range of communication channels and languages that are accessible to Auckland's diverse population and ensure channels such as the website and social media are up-to-date and functional. Utilise third parties to share response communications through their existing channels, including Māori, CALD, rural and disability community networks. Support geographically isolated communities to acquire secondary communication devices.
		27. Enhance communications capacity and capability by: <ul style="list-style-type: none"> enlisting and training a broad group of communications staff across the council group, including CCOs with expertise in media management and social media implementing media training for Controller group, PIM, council leaders who may have a role in communicating with the public during an emergency, and media awareness training for all AEM staff working with partners to develop and deliver messaging in the most effective and consistent way.

Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
Maintenance of alternates list across all functions. Findings of post response de-briefs regarding adequacy of resourcing.	AEM has access to the right number of suitably skilled staff as and when they are required during a response.	AEM	Wider council including CCOs CEG partners NEMA
Completed volunteer strategy and associated actions incorporated into work plan.	Responses have access to the right number of suitably skilled volunteers as and when they are required. Health and safety of volunteers is managed appropriately.	AEM	CEG partners Welfare agencies Volunteer groups
Post event debrief survey results.	Staff have manageable workloads and appropriate working hours. Deployed staff are sent to locations suitable to their home location. A range of suitable wellbeing services are available to staff during and after response.	AEM	Wider Council
Post response debriefs regarding adequacy of communication.	Clear and effective communications channels for the public.	AEM	Wider council
Increase in comms staff to support response. Recorded media training.	Increased capacity and capability of key response staff to effectively manage communications.	AEM	Wider council including CCOs CEG partners

8 Te Whakaoranga Recovery

Recovery from an emergency is the purposeful, collaborative way of working, established to coordinate and manage recovery efforts. The purpose is to achieve better outcomes through coordinated and integrated action.

Recovery involves the coordinated efforts and processes used to bring about the immediate, medium-term, and long-term regeneration and enhancement of a community following an emergency. Opportunities are also sought to reduce risk and increase resilience. Preparations are required before an emergency occurs to effectively coordinate and manage a recovery.

Ngā whakaritenga mō te whakaora Preparations for Recovery

Preparing for recovery is a part of AEM’s business as usual work programme in anticipation of an emergency. Before emergency events, preparations are developed and refined to effectively lead and deliver recovery from an emergency. After recovery from an emergency, debriefs and the lessons learned are incorporated into the work programme to be better prepared for the next recovery.

Community values	Community priorities
Identity, diversity and inclusion, independence, resilience and self-reliance, volunteerism, community, connection and culture, heritage (natural, cultural and built), amenity, local knowledge, leadership, partnership and voice	Access and mobility, physical and social connection, enabling local input, lifelines and key infrastructure, people disproportionately affected by disasters, safety, health, economic recovery, hygiene and personal wellbeing (including our pets), security and personal property, local national and international connections, communications

Te whakamahere whai rautaki Strategic planning

Ara Whakariteritanga Preparedness for Recovery resulted from the Auckland CDEM Group’s strategic planning for recovery. Its vision is ‘Auckland’s people, communities, businesses and infrastructure are well placed to recover from disaster.’ Well placed means well prepared.

Ara Whakariteritanga was developed through engagement with Auckland Council’s local boards and advisory panels. It sets the direction for community-centred recovery and includes community values and priorities and five focus areas for action over the life of the CDEM Group Plan.

The values and priorities below were identified from engagement as important to our communities. They guide our preparations for, and the practical implementation of, a recovery, as relevant and appropriate to the specifics of the event.

Ngā whakaritenga Preparations

AEM staff progress preparations to establish and maintain a framework for recovery through their business as usual activities by:

- contributing to expanding knowledge and understanding of recovery among key stakeholders
- building capability and capacity
- working with NEMA and recovery practitioners across CDEM Groups
- strengthening relationships with iwi and Māori, central government agencies and key stakeholders
- enhancing business-as-usual tools prior to an event, to support recovery
- continuing to develop and refine Auckland Council’s arrangements on an ongoing basis.

Te Aratohu Whakahaere mō te Whakaora Recovery Operations Guide

AEM partners with Wellington Region Emergency Management Office (WREMO). WREMO’s Recovery Operations Guide underlies Auckland’s approach to recovery, as adapted to a unitary authority with 21 local boards, rather than a regional council and territorial authorities. With the support of WREMO, the Guide plays a central role in AEM’s preparations for recovery.

Ngā Kaiwhakahaere mō te Whakaora ā-Rōpū me ngā Kaihautū o te Rāngai Whakaora Group Recovery Managers and Recovery Sector Chairs

To support recovery, the CDEM Committee has appointed a Group Recovery Manager under section 29(1) of the Act, and a pool of suitably experienced and qualified alternate Group Recovery Managers under section 29(2) of the Act. Alternate Group Recovery Managers may act as the Group Recovery Manager, when necessary. This enables the most appropriate person to be selected to lead the recovery from an emergency.

A pool of appropriately qualified recovery advisors is also maintained to support the recovery function during the response phase. AEM maintains awareness of potential recovery environment sector chairs from key organisations most likely to be involved in a recovery.

Te Whakarite Pūrongo Reporting

The development, refinement and approval of AEM’s recovery preparations work programme is reported to the Coordinating Executive Group and the CDEM Committee.

Te Pūtea Funding

AEM’s recovery preparation work programme is funded through the Auckland Council’s Annual Plan and Long Term Plan in accordance with Auckland Council policy and decision-making.

Te whakahaere i te whakaora Managing Recovery

During recovery from an emergency, arrangements are put in place to purposefully coordinate efforts to address its impacts and consequences. The arrangements are temporary, remaining in place for as long as they are required. The length of time varies for each recovery, which may be weeks, months or years depending on the emergency.

Te Kōkiri i ngā mahi Whakaora Standing up a recovery

When activated in response to an emergency, Auckland Council staff stand-up the recovery function to:

- ascertain whether a recovery will be required, with or without access to powers during a local transition period
- plan for the transition from response to recovery
- analyse and plan for appropriate mechanisms and structures to implement recovery, i.e., formal establishment of recovery environment sector groups (social, built, economic and natural)
- activate the Group Recovery Manager or their alternate, as appropriate (event specific if required)
- identify and plan community engagement as appropriate.

During the response to an emergency, the recovery function is active in the Emergency Coordination Centre (ECC). The recovery function may remain in the ECC during the transition but then moves on to accommodation appropriate to the recovery. This ensures the ECC is ready for another response when it may be required.

Transition from response to recovery is effected by the Controller with the support of the Group Recovery Manager on the completion of the:

- Response to Recovery Transition Report
- commitment of agencies, organisations, and groups to their role in recovery
- initial recovery action plan
- transition briefing.

As we approach recovery, the need for access to powers available during a local transition period will also be considered.

The Group Recovery Manager (GRM) or an alternate will be activated. The GRM will be the most appropriate or available experienced and qualified person to lead and coordinate the recovery. For a very large-scale recovery, an appointment outside the council may be required, as was the case for recovery from the Auckland Anniversary Weekend flooding and Cyclone Gabrielle.

As soon as possible after taking up the role, the GRM will meet with the senior management of Auckland Council to discuss the recovery, potential requirements, resources (including staff), and reporting. In a recovery of scale, the GRM may work closely and meet regularly with iwi and Māori, recovery environment sector group chairs, senior management and the executive level of Auckland Council.

Ngā Rōpū Whakaora ā-Kaupapa Recovery environments and sector groups

Planning for and implementing recovery is based on recovery environments and corresponding sector groups. These groups may range from informal, internal arrangements managed by the recovery team, through to more formally established groups,

with chairs and terms of reference. Sector groups are comprised of organisations actively delivering projects, works or services that are a part of the recovery effort. In each recovery the structure will be appropriate to the disaster it follows. An example recovery structure is shown **Figure 10**.

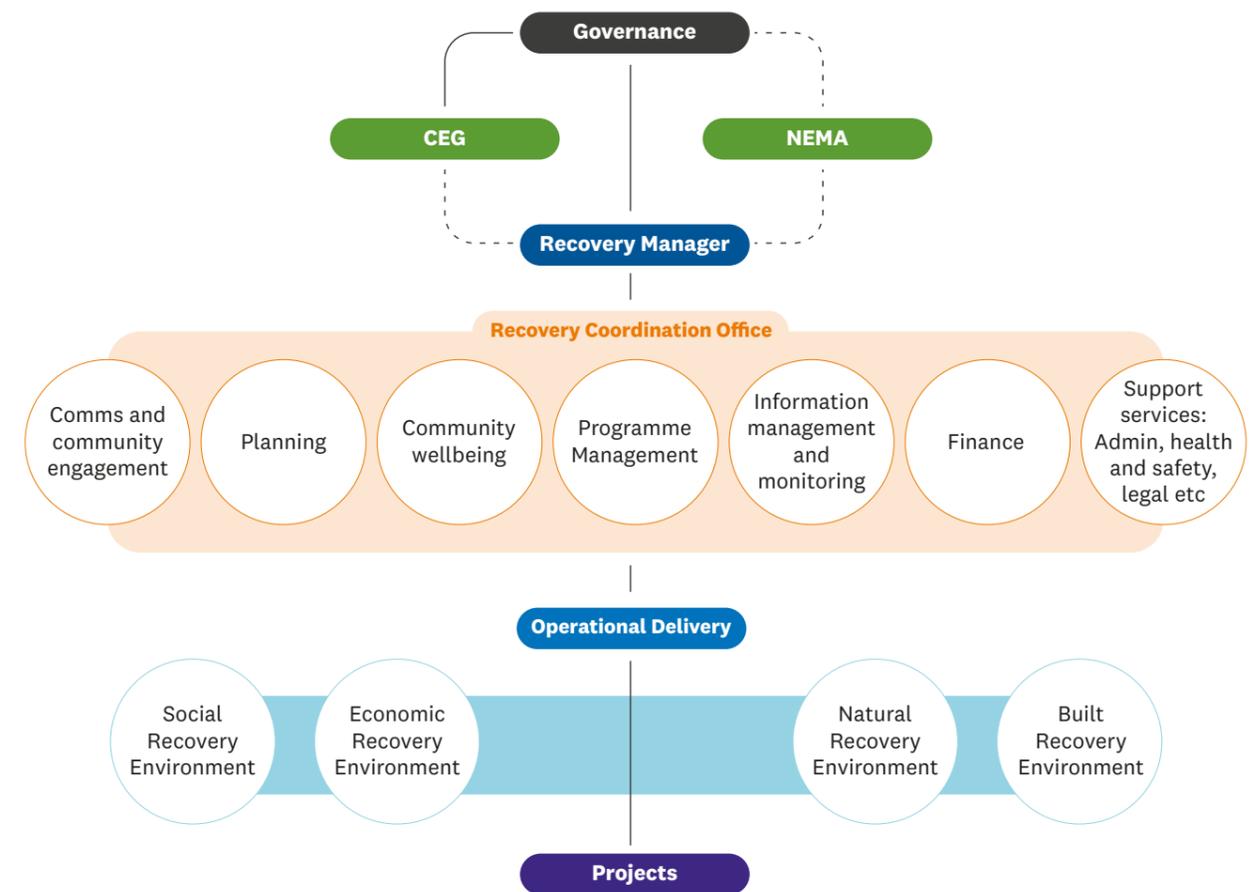


Figure 10 Recovery structure example



Rawene landslide, Birkenhead

Te mahere mō te whakaora **Recovery Plan**

Planning is integral to emergency management. Development of a Recovery Plan is essential to guide recovery efforts to ensure they address the impacts and consequences of the emergency and support their coordination.

Planning a recovery can require careful consideration and, as necessary, strike a balance across complex issues. Recovery may need to be effective at the local and regional level, taking account of different timeframes for impacts and consequences to be fully understood or recovery efforts identified and implemented. It should be based on engagement with mana whenua and mataawaka and Tāmaki Makaurau communities, while being delivered in a timely manner.

A Recovery Plan should be designed to meet these challenges. Resources to support effective recovery planning include Director’s Guidelines – Recovery Preparedness and Management [DGL 24/10], the Aotearoa Guide to Recovery Capitals³⁷, WREMO Recovery Operations Guide and emerging practice across recovery practitioners.

The Recovery Plan should also set out the exit strategy. Exit from recovery is based on understanding when residual or ongoing recovery efforts can continue without the need for coordination under the collaborative recovery framework. Recovery efforts will have become embedded in business-as-usual, are nearing conclusion or have been completed. The community, families, and individuals can continue their recovery without the temporary recovery framework. Exit is supported and informed by monitoring progress towards achievement of the recovery outcomes, based on indicators and metrics relevant to the outcomes sought of the recovery efforts.

³⁷ recoverycapitals.org.au/aotearoa-nz-recap-guide#c05c9196-1ec1-459d-8b9a-6218a967125c



Pāhekoheko **Engagement**

Community is at the centre of recovery. Regard should be had to the community values and priorities identified through strategic planning for recovery. Additional engagement with communities and local boards during a recovery and development of a Recovery Plan will further refine priorities and provides opportunities to support social cohesion. Engagement needs to be inclusive of Auckland’s diverse communities, particularly those disproportionately impacted by disasters.

In addition to community engagement, the local board, or boards, of the affected area play a key role in providing an understanding of the community impacts and consequences. They advocate for their communities and support community engagement with the Recovery Office.

Te Whakarite Pūrongo **Reporting**

Recovery activities are reported to the chair and members of the CDEM Committee, councillors, members of local boards within the affected area, partner agencies and key stakeholders, including NEMA, who brief the Minister for Emergency Management. The use of any powers exercised during a local transition period must be reported to the Minister.

The local board of the affected area will receive regular briefings and be engaged through the development of the Recovery Plan ahead of its submission to CEG and the CDEM Committee for approval.

Te Pūtea **Funding**

The funding of each recovery is determined on a case-by-case basis, as disasters by their nature are unplanned. Systems and processes are in place for tracking expenditure through response and recovery. Government funding may be available for recovery costs, such as essential infrastructure.

The cessation of AEM’s programmed business as usual activities as staff stand-up to deliver response and recovery activities, provides a source of funding in the first instance. Should the scale of the recovery require more funding, other sources will be sought.

Government funding for essential infrastructure reimbursement may be available, subject to eligibility thresholds in accordance with government policy. A Mayoral Relief Fund may be a consideration. The Minister for Emergency Management, with the Prime Minister and the Minister of Finance, can make up to \$100,000 available, which can be used to support the Mayoral Relief Fund.

Te Whakaoranga ā-Motu **National recovery**

For the largest disasters, a National State of Emergency may be declared, or a National Transition Period put in place. In these circumstances, NEMA plays a significant role in resolving the national arrangements the government of the day deems appropriate. Where they include the Auckland region, the arrangements will hold implications for Auckland recovery management, reporting and funding.



Hei aronga mā tātou What we need to focus on

Ara Whakariteritanga identifies five focus areas to advance preparations for recovery:

- capacity and capability
- understand recovery
- collaboration
- communication
- monitoring and evaluation.

These areas of focus inform our objectives and actions, noting that monitoring and evaluation is covered in [chapter 10](#).

He mahi mutunga kore te whakapiki i te taumata o ngā mahi whakaora

Raising the level of recovery practice is ongoing

Prior to the severe weather events of 2023, the Auckland CDEM Group had not declared a State of Emergency, nor issued a local Notice of Transition Period. We need to ensure that recovery practices are well informed by lessons, including lessons from others, and incorporated into our own training, capacity, and capability. Relationship building across the Auckland Council group, with central government and other agencies will support future collaboration.

Kāore anō kia mārama katoa tātou ki ngā mahi whakaora

Recovery is not well understood

The Christchurch earthquakes and subsequent disasters resulted in amendments to the CDEM Act and additional Director’s Guidelines, focused on raising the level of recovery practice. Information exchange and sharing across an increasingly connected network of recovery practitioners has also played a major role. In contrast to CDEM response, recovery is less common, less well developed as a practice, and not as widely understood. This means there is limited public understanding of what recovery is and what to expect during the recovery phase. It also means there are varying levels of understanding within the sector about roles and responsibilities in recovery, when recovery starts and ends, and the complexity and length of time a recovery might require.



Te Mahere Mahi Whakaora Recovery action plan

Objective	Actions	Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
Auckland’s communities are supported to recover from emergency events	28. Continue to develop and refine preparations for recovery, applying lessons learned from previous recoveries and striving for best practice, including: <ul style="list-style-type: none"> • adopting a Recovery Operations Guide • participation in opportunities to share experience and learnings with recovery practitioners across New Zealand • strengthening the mandate for recovery through political engagement • building general understanding of recovery through accessible public communication. 	Recovery Operations Guide adopted. Training opportunities taken by function lead alternates. Ongoing political engagement. Development of materials and collateral for community engagement.	Recovery practices incorporate lessons learned and best practice. Improved community awareness of recovery efforts and progress. Strong awareness and buy-in to recovery needs and funding requirements among local and national politicians.	Preparations for recovery are led by AEM. Recovery activity is led by a Group Recovery Manager, supported by AEM for small scale recovery. Medium-large scale recovery is supported by the wider council, through a dedicated recovery office.	NEMA WREMO and other CDEM Groups
	29. Recruit and maintain a pool of skilled recovery personnel across the council group.	Schedule of skilled recovery personnel.	The right number of suitably skilled recovery personnel are available to be deployed when required.	Preparations for recovery are led by AEM.	NEMA
	30. Proactively collaborate with other CDEM Groups to develop, or contribute to the development of NEMA recovery specific training.	Development of recovery specific training.	Suitably skilled recovery personnel are available to be deployed when required.	Preparations for recovery are led by AEM.	NEMA Other CDEM Groups

9 Te Whakahaere me te Hautūtanga Management and Governance

This section describes the principles and objectives for the direction and management of CDEM in Tāmaki Makaurau. It identifies the members and the roles and responsibilities of the Auckland CDEM Group, the CEG, the Administering Authority and AEM. It also describes key appointments, delegations, and funding arrangements.

NEMA states that a successful CDEM Group is one that has engaged and active leadership, understands its roles and responsibilities, and can direct and manage CDEM. This is what the Auckland CDEM Group strives for as it provides leadership in the delivery of coordinated and collaborative CDEM arrangements.

The principles for management and governance of CDEM activity in Tāmaki Makaurau are:

Strategic focus	The focus of governance decision-making is at the strategic level
Accountable and transparent	The reasons behind decisions are clear and understandable
Effective and efficient	Effective and efficient implementation of emergency management is enabled

Overview

Auckland Council has established the CDEM Committee as the CDEM Group for Auckland³⁸. As a committee of the Governing Body, further details on the CDEM Committee’s roles, responsibilities and membership are set out in the Governing Body’s Terms of Reference. Auckland Council is also the administering authority under section 23 of the CDEM Act (see **Figure 11**).

The CDEM Committee works closely with the CEG, which is responsible for advising, and implementing the decision of the CDEM Committee.

Outside response, in business as usual, Auckland Council leadership roles also have a part to play in relation to CDEM, specifically the mayor, deputy mayor, chief executive (CE) and AEM’s General Manager. Their roles and responsibilities are also outlined in this section.

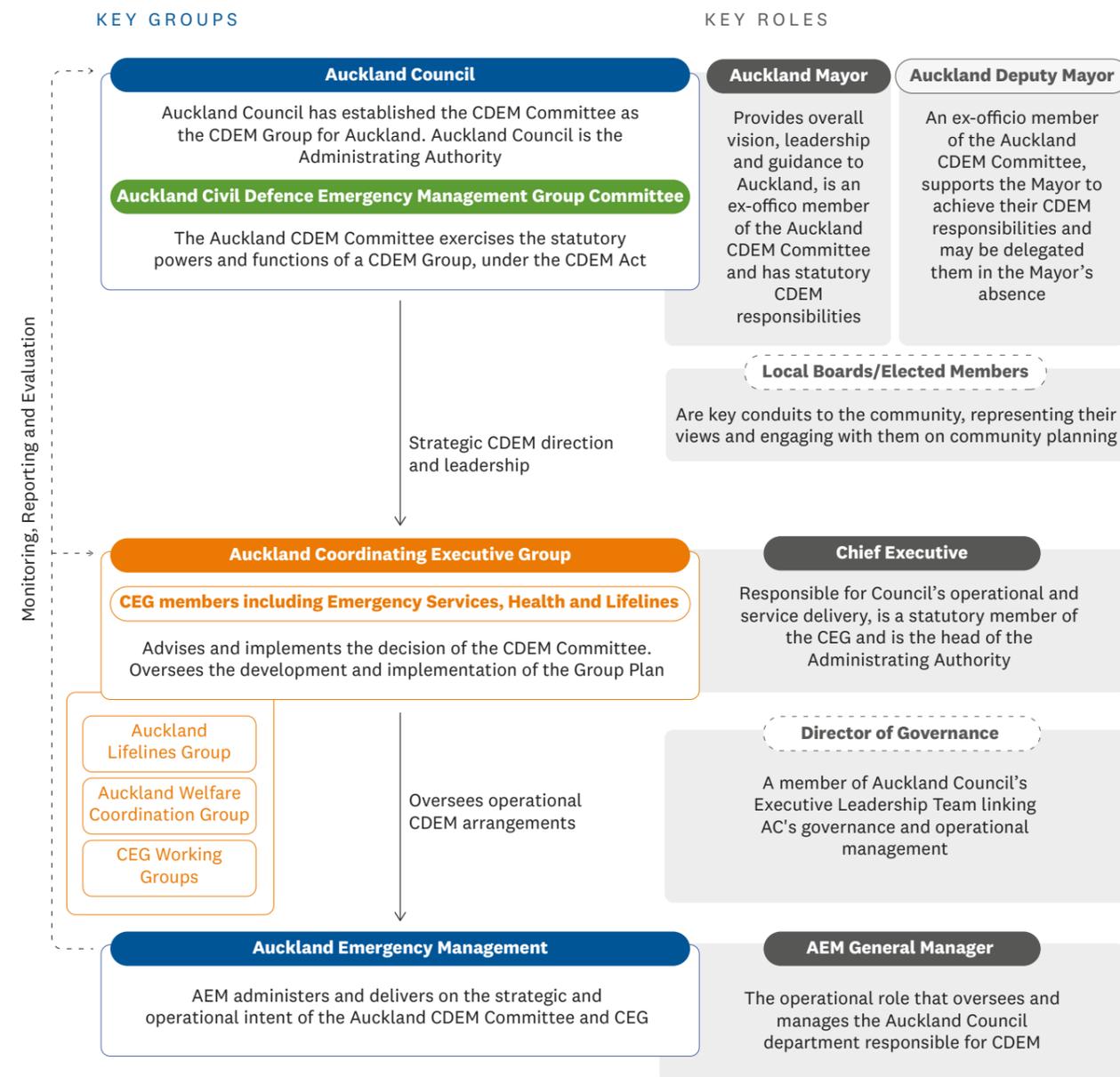


Figure 11 Auckland CDEM Group Management and Governance Structure - Key Groups and Roles

³⁸ As Auckland Council is a unitary authority, under the CDEM Act, the Auckland CDEM Group is comprised of only Auckland Council, rather than being a member of the Group.

Te Rōpū o CDEM ki Tāmaki Auckland CDEM Group

The CDEM Committee has been established by Auckland Council as the CDEM Group for Auckland and exercises the statutory functions and powers of a CDEM Group set out in the Act. The Committee is the strategic forum for CDEM policy and planning and has responsibility for establishing the emergency management structure for Tāmaki Makaurau. Auckland’s CDEM Committee meets quarterly.

The statutory functions of CDEM Groups are listed in section 17 of The Act and are summarised in **Table 2**.

Hazard and Risk Management	<ul style="list-style-type: none"> identify, assess, and manage hazards and risk consult and communicate about risks identify and implement cost-effective risk reduction
Resource Management	Maintain, provide, or arrange the provision of: <ul style="list-style-type: none"> suitably trained and competent personnel, including volunteers, and an appropriate organisational structure for those personnel communications, equipment, facilities, materials, services, information, and any other resources required to manage an emergency and achieve effective CDEM
Plan and prepare for CDEM	<ul style="list-style-type: none"> Participation in the development of the national CDEM strategy and plan Conduct CDEM exercise and training Management of public alerting and warning systems Development and maintenance of regional strategic plans, contingency plans and operational sops
Deliver CDEM	<ul style="list-style-type: none"> Respond to and manage the adverse effects of emergencies in Auckland. Plan and carry out recovery activities Assisting other CDEM Groups as required
Promote CDEM	<ul style="list-style-type: none"> Promoting and raising public awareness of and compliance with the Act and other relevant legislative provisions
Monitor CDEM	<ul style="list-style-type: none"> Development, approval, implementation, and monitoring of a CDEM Group Plan

Table 2 Functions of the Auckland CDEM Group

Other statutory powers or responsibilities of the CDEM Group include:

- the general powers mentioned in section 18 of the Act
- the appointment of Group Controllers under section 26 of the Act
- the appointment of Group Recovery Managers under section 29 of the Act.

Te Mahi a ngā Mema o te Komiti mō te Ārai Mate Whawhati Tata me Te Raru Ohorere i te Urupare

Role of Auckland CDEM Committee councillors during a response

During a response, committee member councillors should maintain their situational awareness of the emergency. Remaining up to date is critical to their role as committee members, as the Auckland CDEM Committee may have to convene for an extraordinary meeting to make key decisions related to CDEM activities, including the active response. This responsibility is in addition to the role they play as ward councillors (discussed within the ‘Elected Officials’ section of this chapter).

Te Rōpū Ruruku Matua Coordinating Executive Group

Auckland CDEM Group has established a Coordinating Executive Group comprised of senior representatives from various agencies in line with section 20 of the Act. The CEG supports the CDEM Group to provide leadership in the delivery of coordinated and collaborative arrangements for CDEM among council, partner agencies, and communities within its Group area.

Te Noho hei Mema Membership

Membership details of CEG are shown in **Table 3**. Members representing an organisation should ensure that their representative:

- has a full knowledge of their agency’s resources, services and expectations
- is appropriately positioned within their agency to provide decision making and be able to commit resources as necessary
- is available and appropriately briefed to actively participate in activities to ensure that planning, projects, and operations use the full potential of their agency or function, while recognising any resource or capacity limitations.

Each representative must also have a delegate that is appropriately trained and has the relevant authority to take on their responsibility, should the primary representative be unavailable.

Statutory (s20) Members - Voting	<ul style="list-style-type: none"> Chief executive, Auckland Council (Chair) New Zealand Police Fire and Emergency New Zealand Te Whatu Ora Health New Zealand Hato Hone St John New Zealand
Co-Opted Members - Voting	<ul style="list-style-type: none"> General Manager, Auckland Emergency Manager (Deputy Chair) Auckland Group Controller Auckland Lifelines Group Chair Auckland Group Recovery Manager Auckland Transport
Contributing Members - Non-Voting	<ul style="list-style-type: none"> National Emergency Management Agency Auckland Welfare Coordination Group Chair New Zealand Defence Force Ministry of Social Development Harbourmaster Ministry of Health Auckland Regional Leadership Group

Table 3 Membership of the Auckland Coordinating Executive Group

Āheinga Functions

Under the CDEM Act, the CEG is responsible for³⁹:

- providing advice to the CDEM Committee
- implementing as appropriate, the decisions of the CDEM Committee
- overseeing the implementation, development, maintenance, monitoring and evaluation of the Auckland CDEM Group Plan.

The Coordinating Executive Group meets quarterly to monitor progress and discuss regional CDEM issues and risks. They monitor AEM’s department work programme, receiving progress reports at each CEG meeting, they will also monitor the progress of this Group Plan’s actions through the same process (see the Monitoring and Evaluation section of this plan for further details). To complete programmes of work identified either in this plan or separately by the CEG, working groups are established. These work programmes are also reported back to the CEG through their meetings, by the CEG members leading the working groups.

To further ensure CDEM activity is being appropriately conducted, the CEG are to maintain a managerial relationship with AEM, via the General Manager AEM.

To provide advice to the CDEM Committee, CEG members utilise their relevant expertise to endorse decisions brought to the forum. Decisions are made by consensus with each voting member entitled to one vote per issue. All decisions made by the CEG must then be endorsed by the Auckland CDEM Committee to be finalised. The CDEM Committee should consider the advice, opinion, and stance of CEG members when making final decisions. Finally, it is the CEG’s responsibility to implement the CDEM Committee’s decisions. This is typically undertaken by AEM.

The Terms of Reference for the Civil Defence Emergency Management Coordinating Executive Group sets out further details into the CEG’s structure, responsibilities, and meetings processes.

³⁹ Civil Defence Emergency Management Act 2002, s 20(2).



Tokonga Mate Ohotata o Tāmaki Makaurau me te Rōpū Whakarite Pūtea Tautoko

Auckland Emergency Management and the Administering Authority

Auckland Council is the administering authority for the Auckland CDEM Group and the CEG⁴⁰. The administering authority is responsible for the provision of administrative and related services that may be required by the Auckland CDEM Group⁴¹. AEM provides secretarial services to both the CDEM Committee and the CEG.⁴²

Administrative and related services include:

- secretariat assistance (e.g., assembling meetings, developing meeting agendas, arranging meeting venues, organising catering, and taking and disseminating minutes)
- providing financial management for the CDEM Group, including budgeting and reporting
- managing contracts entered on behalf of the CDEM Group or CEG.

Auckland Emergency Management is the Auckland CDEM Group Emergency Management Office (GEMO) responsible for day-to-day planning, project work and the delivering of operational arrangements on behalf of the Auckland CDEM Group and CEG. In short, they support the Auckland CDEM Group

to achieve their priorities by being the ‘doers’. Functions of AEM include⁴³:

- providing advice and technical support for the CDEM group and the CEG
- project and programme coordination and management
- coordinating regional CDEM policy and implementation
- managing and administering CDEM staff on behalf of the CDEM Group
- external liaison with the CDEM sector
- monitoring and responding to, the adverse effects of emergencies on behalf of the Auckland CDEM Group and disseminating warnings to key stakeholders and the wider Auckland community
- coordinating monitoring and evaluation activities
- building community awareness and resilience in relation to relevant risks and hazards
- coordinating the development, implementation, monitoring and review of the Auckland CDEM Group Plan
- planning for CDEM
- identifying, examining, and prioritising the risks and hazards to Auckland
- representing the Auckland CDEM Group on regional and national bodies and projects
- maintaining the Auckland GECC and its alternate locations
- building the region’s response capability through provision of training opportunities.

⁴⁰ Civil Defence Emergency Management Act 2002, s 23.

⁴¹ Civil Defence Emergency Management Act 2002, s 24.

⁴² Auckland Civil Defence and Emergency Management (2022). Civil Defence and Emergency Management Coordinating Executive Group Terms of Reference.

⁴³ Auckland Civil Defence and Emergency Management (2022). Civil Defence and Emergency Management Coordinating Executive Group Terms of Reference.

Ngā Mahi Matua i te Kaunihera o Tāmaki Makaurau

Key Auckland Council roles

Role	CDEM roles and responsibilities during business as usual (BAU)	Operational roles and responsibilities during an emergency response
Mayor	<ul style="list-style-type: none"> • The mayor is the only member elected by all Aucklanders and is the public face of Auckland Council. The mayor has a statutory role to articulate and promote a vision for Auckland and provide leadership to contribute to that vision⁴⁴ • The mayor has responsibilities as an ex-officio member of the Auckland CDEM Committee (discussed above). • The CDEM Committee has appointed the mayor as the first person in the hierarchy, authorised to declare a state of emergency or issue a notice of transition period⁴⁵ (discussed below in ‘Declarations, Delegated Authorities and Powers’) • There are also several non-statutory, general responsibilities: <ul style="list-style-type: none"> - understand the hazards and risks within Tāmaki Makaurau - understand their CDEM roles and responsibilities - encourage the community to reduce risk at home and work, and to lead the vision of a resilient Auckland. 	<p>The governance roles are to maintain their BAU obligations during a response. The mayor is still the council’s principal representative to the public, the deputy mayor continues to assist the mayor as appropriate, and the CE continues to have overall responsibility of the management of Auckland Council.</p> <p>Governance does not manage a response, instead they:</p> <ul style="list-style-type: none"> • communicate and influence the strategic direction outside the operational response • may act as a spokesperson • may execute legislative authority and; • as elected officials, may be held accountable by communities for the overall response outcomes.
Deputy Mayor	<ul style="list-style-type: none"> • The deputy mayor has responsibilities as an ex-officio member of the Auckland CDEM Committee (discussed above). • The CDEM Committee has appointed the deputy mayor as the second person authorised to declare a state of emergency or give notice of a local transition period, in the absence of the mayor (discussed below in ‘Declarations, Delegated Authorities and Powers’) • There are also several non-statutory, general responsibilities: <ul style="list-style-type: none"> - understand the hazards and risks within Tāmaki Makaurau. - understand their CDEM roles and responsibilities - encourage the community to reduce risk at home and work, and to lead the vision of a resilient Auckland. 	<p>Throughout a response, governance should stay in contact with the General Manager or elected member liaison (if activated) to maintain situational awareness, unless under a local declaration, whereby communications will be maintained via the Group Controller, supported by the General Manager. Staying up to date enables the CE to keep making appropriate decisions for Auckland Council (e.g., temporarily repurposing council staff to the response) and for the mayor to continue as a key conduit between the council and the public, noting that the Group Controller is also a key communicator between the response and the community, during an emergency.</p>
Chief Executive	<ul style="list-style-type: none"> • The CE is a statutory member of CEG and has been appointed Chair of the CEG. The CE may authorise someone else to act on their behalf. • As the principal administrative officer for Auckland Council, the CE is head of the administrative authority. • Practically, in relation to council’s BAU responsibilities, the CE delegates to staff all the powers necessary to perform their roles. 	

⁴⁴ Section 9(1). Local Government (Auckland Council) Act 2002.

⁴⁵ Even if the mayor were not appointed by the Committee, under the CDEM Act the mayor has the power to declare a state of emergency (s 25(5)).

Te Huri i te Urupare ki te Whakaoranga Transition from Response to Recovery

As the response to an emergency progresses, consideration is given to whether coordinated recovery efforts are needed. They will most likely be required if a State of Emergency is declared. Where a State of Emergency is not declared, coordinated recovery efforts may still be needed, depending on the scale and extent of the emergency’s impacts and consequences.

The transition from response to recovery needs to be planned before the response ends, including preparation of a Response to Recovery Transition Report. This involves:

- compilation of information on the event, the response and impacts and consequences provided by the CIMS functions active in the response
- discussion between the Group Controller, General Manager, Group Recovery Manager, and NEMA’s Regional Emergency Management Advisor
- briefing the Mayor and Chief Executive by the Group Controller and/or General Manager, with NEMA’s Regional Emergency Management Advisor
- the Group Recovery Manager will engage with the Chief Executive on the terms of reference for the recovery
- termination of response, including any declaration, currently in force.

Another consideration is whether the powers available during a local transition period is required in the public interest and is necessary or desirable for a timely and effective recovery. A local Notice of Transition Period can be given if a State of Emergency was declared, or, with the approval of the Minister, where a State of Emergency has not been declared.

The mayor is identified as the first person within the hierarchy to issue a local Notice of Transition Period⁵⁵. The deputy mayor and nominated members of the CDEM Committee, as per resolution by the committee, are authorised to issue a local Notice of Transition Period in the mayor’s absence, in line with the hierarchy displayed in **Figure 12**. If a Notice is required, the Group Controller and any persons nominated by the Group Controller are to brief the mayor (or the relevant decision maker, in the mayor’s absence). In giving notice of a local transition period, the authorised persons must be satisfied that invoking powers to manage, co-ordinate or direct recovery activities is in the public interest and necessary or desirable for a timely and effective recovery⁵⁶.

A local Notice of Transition Period expires after 28 days if not extended or terminated earlier. Extension or termination of a Notice of Transition Period follows the same process as that for issuing a Notice of Transition Period described above.

Mayor
Deputy Mayor
Chair of the Auckland CDEM Committee
Deputy Chair of the Auckland CDEM Committee
Other councillors who are members of the Auckland CDEM Committee
Best endeavours will be made to follow the hierarchy, however if time is of the essence, the signature of any of those authorised to declare will override this hierarchy.

Figure 12 Hierarchy of persons authorised to issue a State of Local Emergency and Notice of Transition

⁵⁵ Even if the mayor were not appointed by the Committee, under the CDEM Act the mayor has the power to declare a state of emergency (s 25(5)).

⁵⁶ Civil Defence Emergency Management Act 2002, s 94.

Ngā mana ā-ture, ngā āheinga me ngā mana whakahaere kua tāpaea Delegated authorities, functions and powers

The Act sets out key appointments CDEM Groups are required to make. These key appointments include Group Controllers⁵⁷ and Group Recovery Managers⁵⁸. Additionally, the National Plan states that CDEM Groups are responsible for appointing a suitably qualified Group Welfare Manager⁵⁹. As the appointed Group Controllers, Group Recovery Managers and the Group Welfare Manager may change over the lifetime of the Group Plan, a live document is available on the [Auckland Emergency Management website](#).

The Group Controller and Group Recovery Manager functions, as set out in sections 28 and 30A of the Act respectively, are to direct and coordinate the use of personnel, material, information, services, and other resources during a state of emergency (Group Controller) or, during a transition period, to carry-out recovery activities (Recovery Manger). Additionally, both roles must also perform any functions delegated to them by the CDEM Group^{60 61}.

Kaiwhakamatua ā-Rōpū Group Controller

The CDEM Group appoints a Group Controller under s26(1) and a number of suitably qualified and experienced personnel to perform the functions and duties, and exercise the powers, of the Group Controller, on the occurrence of a vacancy in the office of the Group Controller, or the absence from duty of the Group Controller, under s26(2). The Auckland CDEM Group refers to persons appointed under s26(2) as “Alternative Group Controllers”. Ultimately, under CIMS, the Controller leads the response.

To facilitate efficient and effective civil defence emergency management in Auckland, Group Controllers for the Auckland CDEM Group area operate on a roster system. The Alternative Group Controllers perform the functions and duties of the Group Controller during any period that they are rostered on to act as Group Controller (i.e., in the absence of the Group Controller appointed under section 26(1)).

During a state of emergency, the Group Controller may exercise various powers in relation to civil defence emergency management. Key Powers are outlined in **Table 5**, however, there are several powers conferred throughout sections 76-92 of the Act. These include powers provided for the preservation of human life: evacuation of premises and places, entry on premises and requisitioning of powers; and powers provided to prevent or limit the extent of an emergency: closing of roads and public places, power to give directions, power to carry out inspections and the power to remove vehicles/ vessels/aircraft/etc.

⁵⁷ Civil Defence Emergency Management Act 2002, s 26.

⁵⁸ Civil Defence Emergency Management Act 2002, s 29.

⁵⁹ National Civil Defence Emergency Plan Order 2015, Schedule clause 65(6).

⁶⁰ Civil Defence Emergency Management Act 2002, s 28(2).

⁶¹ Civil Defence Emergency Management Act 2002, s 30A(2).



Emergency Power	Summarised Description	Relevant Legislation
Evacuation of Premises and places	May direct the evacuation of any premise or place within the area in which the emergency is in force, for the preservation of human life.	CDEM Act 2002, section 86
Entry on Premises	May enter on and if necessary, break into, any premise or place within the area in which an emergency is in force, if necessary for: <ul style="list-style-type: none"> • saving a life, preventing injury, or rescuing and removing injured persons; or • permitting or facilitating the carrying out of any urgent measure for the relief of suffering or distress. 	CDEM Act 2002, section 87
Closing Roads and Public Places	May totally or partially prohibit or restrict public access to any road or public place within the area in which an emergency is in force, to prevent or limit the extent of the emergency.	CDEM Act 2002, section 88
Removal of Aircraft, Vessels, Vehicles, etc.	May remove any aircraft, hovercraft, ship, ferry, other vessel, train, or vehicle impeding emergency management, within the area in which an emergency is in force. If reasonably necessary, may use force or break into, to do so.	CDEM Act 2002, section 89
Requisitioning Powers	Ability to requisition any item, thing, or property (listed in detail within s90) if it is their opinion that it is necessary to do so for the preservation of human life.	CDEM Act 2002, section 90
Power to give Directions	May direct any person to stop any activity that may cause or substantially contribute to an emergency. They may request any person to take action to prevent or limit the extent of the emergency.	CDEM Act 2002, section 91
Power to Carry Out Inspections, etc.	May examine, mark, seize, sample, secure, disinfect, or destroy any property, animal, or any other thing in order to prevent or limit the extent of an emergency.	CDEM Act 2002, section 92

Table 5 Emergency Powers available to the Group Controller under sections 86-92 of the CDEM Act 2002

Ngā mana whakahaere ā-ohotata o Te Ārai Mate Whawhati Tata me Te Raru Ohore (CDEM) kua tāpaea ki te Kaiwhakamatua ā-Rōpū
CDEM Group emergency powers delegated to Group Controller

The Auckland CDEM Group has delegated its emergency powers to the Group Controller. If required, the Group Controller may exercise these powers when a state of emergency is in force within Tāmaki Makaurau⁶². The emergency powers delegated to the Group Controller are those set out in section 85 of the Act and include:

- Carrying out (or requiring to be carried out) works, clearing roads, public places, removal and/or disposal of dangerous structures
- Provision of Rescue – removing endangered persons to areas of safety
- provision of first aid – setting up first-aid posts and/or providing first aid to injured persons.
- provision of relief – emergency food, clothing, and shelter
- providing for the conservation and supply – of food, fuel, and other essential supplies.
- prohibition/regulation of traffic – land, air and water traffic to conduct necessary cdem
- dissemination of information and advice
- contract arrangements – able to enter arrangements with any person for the purpose of carrying out CDEM

- provision of equipment, accommodation and facilities – to be capable of exercising any of the above powers.

Kaiwhakahaere Whakaora ā-Rōpū Group Recovery Manager

The CDEM Group appoints a Group Recovery Manager under section 29(1) and a number of suitably qualified and experienced alternates to perform the functions and duties and exercise the powers of the Group Recovery Manager, under section 29(2). As part of planning for transition to a recovery, the Group Recovery Manager or alternative is activated.

If a local Notice of Transition Period has been issued, the Group Recovery Manager can also exercise powers, as described in part 5B of the Act, set out in **Table 6**. The Group Recovery Manager may only exercise such powers in respect of the area for which they are responsible if, in their opinion, the exercise of the powers is:⁶³

- in the public interest
- necessary or desirable to ensure a timely and effective recovery
- proportionate in the circumstances.

⁶² Civil Defence Emergency Management Act 2002, s 85.

⁶³ Civil Defence Emergency Management Act 2002, s 94(g).

Emergency Power	Summarised Description	Relevant Legislation
General Powers	<ul style="list-style-type: none"> works. clearing roads and public places. examining and marking property or animals. removing or disposing or securing, making safe dangerous structures and materials. conservation and supply of food, fuel, and essential supplies. information and advice to the public. 	CDEM Act 2002, section 94H
Require information	May require any person to give information in accordance with s 76, subject to sections 76, 77, 82 and 83.	CDEM Act 2002, section 94I
Evacuation of premises and places	May, for the preservation of life, direct the: <ul style="list-style-type: none"> evacuation of any premises or place including a public place exclusion of people or vehicles from any premises or place including any public place. 	CDEM Act 2002, section 94K
Entry on premises and place	May enter, or if required, break into any premises or place, if they believe the action is reasonably necessary for: <ul style="list-style-type: none"> saving life, preventing injury or rescuing or removing injured or endangered people permitting of facilitating or carrying out any urgent measure for relief or suffering of distress. 	CDEM Act 2002, section 94L
Closing roads and public places	May, in order to prevent, limit or reduce the consequences of an emergency; totally or partially prohibit or restrict public access with or without vehicles to any road or public place.	CDEM Act 2002, section 94M
Power to give directions	Subject to the provisions of sections 94N and 94NA, may: <ul style="list-style-type: none"> direct any person to stop any activity that: <ul style="list-style-type: none"> may cause or substantially contribute to the consequences of the emergency may prevent or substantially hinder the recovery from an emergency. request any person verbally or in writing to take any action to prevent or reduce or limit the consequences of an emergency direct the owner of a structure to obtain an assessment of the effect of the emergency on the structure direct owners of structures or a particular type of structure to obtain assessments of the effect of the emergency on structures of that type. 	CDEM Act 2002, section 94N and 94NA

Table 6 Powers available to the Group Recovery Manager under 94H-94N CDEM Act 2002

The use of powers is subject to the provisions of section 94NA (notice requirements), 94O (proof of identity) and 94P (reporting).

Kaiwhakahaere Tokoora ā-Rōpū Group Welfare Manager

Auckland CDEM Group has appointed a suitably senior and experienced CDEM Group Welfare Manager (and suitable and experienced personnel to be alternative CDEM Group Welfare Managers) responsible for coordinating and arranging the delivery of welfare services to individuals, whānau and communities, including animals, affected by an incident⁶⁴. This is done in partnership with social services, health services and non-government organisations.

During a response, immediate welfare needs should be met as soon as possible. Ongoing and future needs should be identified, assessed, coordinated, and met. Depending on the scale and complexity of the event, welfare needs may include (but are not limited to):

- food, water, hygiene, and clothing
- medication and other health needs
- shelter or accommodation
- psychological first aid and psychosocial support
- care and support for vulnerable people and communities
- financial assistance (e.g., tax relief or business support)
- veterinary assistance, food, water, rescue, evacuation and/or shelter for affected animals
- assistance with contacting family/whānau or significant others, and
- timely information about available services.

Ngā Whakaritenga Pūtea mō te Rōpū Ārai Mate Whawhati Tata me Te Raru Ohorere mō Tāmaki Financial Arrangements for Auckland CDEM Group

Being a Unitary Authority, Auckland Council is the sole financial contributor, and no cost apportionment arrangements for CDEM are required. CDEM costs can be incurred through either programmed activities, or emergency expenditure.

Ngā Mahi kua Whakamaheretia Programmed Activities

The council is responsible for the cost of providing administrative and related services under s24 of The Act, including agreed annual work programmes required to implement the Group Plan. Funding is secured through the long-term plan (LTP) and annual plan processes. The actions set out in this plan can be delivered within funding set by the current LTP.

Ngā Whakapaunga Pūtea Ohotata Emergency expenditure

In the lead-up to an emergency, the CDEM Group is responsible for funding:

- all costs associated with the resourcing activation and operation of the Auckland Group ECC
- all reasonable direct expenses incurred by the Group Controller
- all reasonable direct expenses (such as travel, meals, and accommodation) incurred by recognised technical advisors when they are requested to attend meetings.

During an emergency, the CDEM Group is responsible for funding:

- all costs associated with the resourcing activation and operation of the ECC
- all reasonable direct expenses incurred by the Group Controller.

⁶⁴ National Civil Defence Emergency Plan Order 2015. Schedule clause 62(6).

The cost of caring for the displaced

Central government may reimburse agreed eligible costs associated with accommodating, transporting, feeding, and clothing people directly affected by an emergency.

These welfare services are coordinated by the Welfare function in response, in partnership with social services, health services and non-government organisations. Where community-based organisations wish to establish and offer welfare support to the community, arrangements must be agreed in advance so that both parties are clear about what costs can be reimbursed.

Other response costs

Other expenditure associated with responding to an event may be partially reimbursed by government. This includes costs incurred by the CDEM Group during response to take precautionary actions to reduce the immediate danger to human life and preventative actions aimed at reducing the potential consequences of an emergency which began immediately before the emergency.

Refer to the Recovery section for a description of costs associated with Recovery.

Hei aronga mā tātou What we need to focus on

The scale and complexity of organisations within the CDEM sector mean that strategic direction, roles and responsibilities are not always clear. Ongoing central government reviews and policy developments continue to drive change in the emergency management system. It is important that the key participants maintain a current, working understanding of their responsibilities.

Te Mahere Mahi Whakahaere me te Hautūtanga Management and Governance Action Plan

Objective	Actions	Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
Strategic direction, roles and responsibilities are clear and understood	31. Ensure the roles and responsibilities contained within this Group Plan are reviewed and updated as appropriate, communicated and understood by the parties involved, and reflected in appropriate documentation.	Elected member handbook. Elected member training as appropriate. Results of post-response debriefs regarding response leadership.	Clear understanding of roles before, during and after emergencies.	AEM	Wider council Elected officials

➤ 10 Te Aroturuki me te Arotake Monitoring and Evaluation

Monitoring and evaluation are key elements of effective policy to ensure compliance with legal obligations⁶⁵, and to assess progress in achieving goals and objectives.

Monitoring involves tracking progress against intended activity – ‘did we do what we said we were going to do?’

Evaluation is about measuring effectiveness of that activity – ‘how effective were the actions we took at addressing the challenges faced, in order to meet objectives?’

The key principle underlying effective monitoring and evaluation in Auckland, is that CDEM Group activity is planned, monitored, and effective in achieving objectives.

The CEG meets quarterly to monitor progress and discuss regional CDEM issues and risks. They monitor the AEM department work programme, receiving progress reports at each CEG meeting. To complete programmes of work identified either in this plan or separately by the CEG, working groups are established. These work programmes are also reported back through CEG meetings, by the CEG members leading the working groups.

Exercises also support continuous improvement, providing a measure of the effectiveness of emergency management plans and procedures, as set out in the Operational Readiness section of this plan.

What we need to focus on Hei aronga mā tātou

Quality information is required for governance to be effective. Regular governance oversight of the council’s progress with key emergency preparedness matters is required. This includes progress in implementing Group Plan actions through work programmes and addressing recommendations of both internal and external reviews, taking into account recommendations from community debriefs, where these have been provided. An agreed cadence of reporting to CEG and Committee against Group Plan actions sets clear expectations for monitoring progress.

⁶⁵ Section 17(1)h and Section 37 (1) of the CDEM Act require monitoring and evaluation.



Te Mahere Mahi mō te Aroturuki me te Arotake Monitoring and Evaluation Action Plan

Objective	Actions	Key deliverables / success measures	Results	Lead within Auckland Council	Key supporters
CDEM delivery in Auckland aligns with the Auckland CDEM Group Plan and reflects best practice.	32. Reporting to CEG and Committee on: <ul style="list-style-type: none"> the annual AEM work programme, which demonstrates alignment with the Group Plan and is approved by CEG and the CDEM Committee each year an annual Group Plan monitoring and evaluation report, guided by the key deliverables, success measures and results set out in this plan bi-annual reporting by CEG working groups to demonstrate progress recovery plan implementation, including learnings on changes to a community following recovery compliance with emergency management powers in the CDEM Act. 	Approved work programme and monitoring report. Working group reports received.	Delivery of group plan actions to develop an emergency management system in Auckland that is as ready as possible. Oversight of CEG working group activity and recovery activity.	AEM	CEG partners Wider council
	33. Post emergency response debriefs are carried out, with key findings and recommendations reported to CEG and the CDEM Committee and actions built into forward work plans.	Completed debriefs.	Continuous improvement of emergency management arrangements.	AEM	CEG partners Wider council



West coast of Tāmaki Makaurau

Appendix B: Ngā Mōrearea o Tāmaki Auckland's hazards

Auckland is at risk of many hazards, with priority hazards described briefly here. This list is not exhaustive and does not cover every hazard or event that may require Auckland CDEM Group intervention. Our framework also allows us to add or reprioritise hazards as their risk grows, or we learn more about their potential effects on our communities.

Key selected hazards are described here with details of their lead agency⁶⁶ and examples of events that have impacted Auckland in the past. Further information on hazards is set out in **Chapter 3** and **Appendix C**.

Rū whenua Earthquake

Lead Response Agency – Auckland CDEM

Earthquakes are caused by a sudden release of energy in the Earth's crust resulting in seismic waves that cause ground shaking and associated hazards. All New Zealand is at risk of earthquakes due to our location at the boundary where the Pacific and Australian tectonic plates are colliding. Every year, GNS Science records over 20,000 earthquakes across New Zealand.

While Auckland is considered to have a relatively low seismic risk with few active faults, it could also be impacted by large earthquakes outside of Auckland. As well as ground movement and its associated damage, earthquakes can cause landslides, liquefaction and even tsunami. Large earthquakes can also have economic impacts for the entire country.

Example: 1891 Port Waikato Earthquake, many minor impacts from other nationally significant quakes.

Tainiwahaniwha Tsunami

Lead Response Agency – Auckland CDEM

Tsunami are series of large ocean waves that can cause significant destruction along coastlines. They are usually caused by underwater disturbances such as earthquakes, landslides or volcanic eruptions, creating waves that travel out in all directions. These waves can appear small and travel at high speeds across the deep ocean, but slow and grow in height and destructive power as they approach the coast up to many thousands of kilometres away.

All of New Zealand, including Auckland, is at risk from tsunami due to our position in the Pacific Ring of Fire. This is a geologically active area surrounding the Pacific Ocean marked by frequent earthquakes and volcanic eruptions as a result of the collision and subduction of the Earth's tectonic plates. NEMA separates tsunami into three types, depending on where they form, with each type creating unique public alerting challenges:

- distant source tsunami, like one generated from Chile, could take 14 hours or more to arrive
- regional source tsunami, like one generated from the southwest Pacific, could take between one and three hours to arrive
- local source tsunami, generated very close to New Zealand, could arrive in minutes.

Waipuke Flooding

Lead Response Agency – Auckland CDEM

Flooding is Auckland's most common and damaging hazard and there are many types of flooding that have different causes. We focus on the flooding that causes the most damage in Auckland in our rivers and streams or when urban stormwater systems flood.

River flooding generally happens after significant rain causes rivers to burst their banks into the floodplains that surround them. The Kumeū, Wairoa and Puhoi Rivers drain large catchments and have created significant river flood events in the past.

Flash floods happen when heavy rain falls in a small area, creating dangerous floods with little warning. Flash floods can occur in both urban and rural catchments. Auckland has experienced flash floods in the past including during the 2023 Auckland Anniversary Weekend Floods and in the Waitākere Ranges in 2018.

Urban flash floods occur when rain falls faster than the storm water system can manage. These floods usually happen very quickly and can block roads and damage buildings. They usually only last a short time but can be dangerous because of how quickly they can occur.

Flooding may become more intense and frequent in the future as we experience the ongoing effects of climate change.

Example: Kumeū Floods 2021, New Lynn Floods 2017.

Te horapa o te āwhā taikaha Widespread severe storm

Lead Response Agency – Auckland CDEM

Storms are compound hazards - a combination of many different hazards occurring at the same time, such as high winds, storm surge and heavy rain causing flooding. They can also cause other hazards such as lifeline utility failure and transport accidents. This makes them a potentially complex and challenging hazard to manage.

Auckland can experience storms all year around including tropical cyclones that track down from the tropical latitudes in summer, and strong polar blasts that come up from the 'roaring 40s' and southern latitudes in the winter. These storms bring high rainfall to our catchments and stormwater systems.

As well as flooding, which can occur suddenly in Auckland's unique stream and urban catchments, storms can cause landslides which damage buildings and the lifeline utility (particularly transport) networks. Storms can bring low atmospheric pressures that when combined with high tides or strong winds, could cause coastal inundation and storm surge.

How we are impacted by widespread severe storms will change as we continue to experience the impacts of climate change. Rainfall rates and wind speeds associated with severe storms may become more intense in the future as global temperatures continue to rise.

Example: Auckland Anniversary Weekend storm 2023

⁶⁶ The National Civil Defence Emergency Management Plan 2015 and Guide to the Plan.

Te mate urutā ā-tangata

Human pandemic

Lead Response Agency – Ministry of Health

A pandemic is an outbreak of an infectious disease that spreads across a very large region, multiple countries, or worldwide. The direct impact on human life can be immense, with vulnerable populations, including the elderly and those with underlying health conditions, being particularly at risk.

The risk and impacts of a pandemic extend beyond the immediate health crisis. Education systems face disruptions, as schools and universities close or transition to remote learning. Social interactions are strained, with physical distancing measures and lockdowns impacting social gatherings, cultural events, and everyday interactions. Pandemics also reveal existing inequalities, with marginalised communities and low-income or socially isolated individuals facing heightened vulnerability and limited access to healthcare services and support.

While the Ministry of Health is the lead agency for human pandemics, Auckland CDEM assists in providing regional inter-agency coordination of welfare support.

Example: 2020 COVID-19

rautupu taikaha

Severe thunderstorm Te

Lead Response Agency – Auckland CDEM

Auckland experiences widespread storms, including isolated, high intensity storms and thunderstorms, particularly in the summer months but potentially year-round. The MetService classifies a severe thunderstorm as one that meets one of more of the following criteria:

- rainfall of 25mm/hr or more
- hailstones of 20mm or more in diameter
- gusts of wind of 110km/h or stronger
- damaging tornadoes of at least Fujita Scale 1 (wind speeds of 116km/h or more).

These storms are intense but relatively compact and unpredictable, making forecasting their exact path and impact area challenging. However, they are capable of producing localised flooding as well as damage to buildings, trees and more rarely, injuries and deaths.

Like severe widespread storms, severe thunderstorms may become more intense and frequent as a result of climate change.

Example: 2021 Papatoetoe tornado, 2012 Hobsonville tornado.

Te mūhore ā-tūāhanga

Infrastructure failure

Lead Response Agency – Auckland CDEM

Note: Infrastructure failure is addressed as separate hazards in the hazard risk assessments process, to allow a more granular assessment (e.g. electrical, fuel, water supply and dam failure).

Infrastructure service outages may originate from network failures within the Auckland region or from outside the region. For example, our electricity and fuel supplies are brought in from other areas of the country. Infrastructure asset failures can also result from many causes, such as natural or technological hazards, human error, cyber security breaches, equipment failure or poor maintenance. There are also interdependencies between different infrastructure sectors. Failure in one sector can have a cascading effect on others. Examples of past infrastructure failures include the 1998 Mercury power crisis which caused a power cut to the Auckland CBD for six weeks, the 111 service disruption in 2010, the failure of the main gas pipeline to Auckland and Northland in 2011, the Penrose grid exit points fire in 2014, the Northland fuel pipeline strike in 2017, and high turbidity in water reservoirs in 2017 from the Tasman Tempest rainfall event.

The potential for infrastructure failures is mitigated by building robustness and redundancy into the infrastructure networks, but 100 per cent service reliability is neither affordable nor practicable and there will always be some residual risk. Infrastructure providers have robust systems in place to manage their assets and minimise the possibility of disruptions, however infrastructure can still be susceptible to uncontrollable factors like extreme weather events, natural disasters such as earthquakes, and external threats.

The status of some utilities can affect the habitability of residential properties and disproportionately impact vulnerable communities.

Examples – 1998 Auckland Power Crisis, 2017 water turbidity crisis.

Hūnga puia

Volcanic eruption

Lead Response Agency – Auckland CDEM

Auckland could be affected by volcanic eruptions from both inside and outside of the Auckland region. The Auckland Volcanic Field contains 53 known volcanic centres.

Unlike the volcanoes of the central North Island, eruptions in Auckland have occurred at different locations and could occur anywhere within the volcanic field in the future. There are a range of volcanic hazards which could affect Aucklanders including lava flows, toxic gases, earthquakes, and clouds of fast moving volcanic debris, depending on where the next eruption occurs. While scientists consider the probability of an eruption occurring within our lifetimes to be very low, the Auckland Volcanic Field is active and the consequences of a future eruption in Auckland could be very high.

Auckland is also at risk from volcanic eruptions originating from elsewhere in New Zealand and around the world. The most likely hazard is volcanic ash which can impact lifeline utilities, transportation routes and human and animal health.

Example: Ruapehu 1995/1996 eruption, the formation of Rangitoto ca. 800 years ago.

Ngā riha ā-tipu, ā-kararehe, me ngā mate **Plant and animal pests and diseases**

Lead Response Agency – Ministry for Primary Industries.

Plant and animal pests and diseases can have a major impact on our economy, biodiversity, environment, public health, and way of life. Auckland has a well-established and important primary sector, and due to the location of the port and airport, is a potential gateway for plant and animal pests and diseases to enter the country.

While the Ministry for Primary Industries is lead agency for plant and animal pests and diseases, responses may require a sector-wide response at multiple levels of government. Auckland CDEM also provides welfare and logistical support, such as staffing and resourcing.

Example: Kauri dieback disease (2008 – present), Queensland Fruit Fly 2018, Mycoplasma Bovis 2017.

Tauraki **Drought**

Lead Response Agency – Ministry for Primary Industries

A drought is usually defined as a shortage of rain that negatively affects human activity. In addition to reduced access to drinking water and heightened risk to public health and wellbeing, droughts can have devastating effects on the agricultural sector, leading to reduced crop yields, livestock losses, soil degradation, increased pest and disease pressure, and economic hardships for farmers and rural communities. Droughts can also impact electricity generation outside of the Auckland region, which impacts our supply. Auckland is likely to experience longer and more severe droughts due to ongoing climate change.

AEM assists the Ministry for Primary Industries where welfare and logistical support is required, such as emergency water supplies.

Example: Auckland 2020 drought

Te parawhenua ā-tai/te waipuke ā-waitai **Coastal inundation/storm surge**

Lead Response Agency – Auckland CDEM

Coastal erosion and inundation can have significant impacts on coastal areas. Coastal erosion refers to the gradual wearing away of land, beaches, and cliffs due to natural processes like wave action, tidal currents, and wind. This erosion can lead to the loss of valuable land, destruction of infrastructure, and the displacement of coastal communities.

Coastal inundation, on the other hand, occurs during severe weather events when strong winds and low atmospheric pressure cause a temporary rise in sea level (storm surges), often associated with powerful waves that inundate coastal areas. Coastal inundation caused by storm surges can cause extensive flooding, damage to buildings, infrastructure, and ecosystems, as well as pose risks to human life and safety.

Both coastal erosion and inundation can contribute to the loss of coastal habitats, increased vulnerability to future extreme weather events, and economic hardships for coastal communities that rely on tourism, fishing, and other coastal-based industries. Rising sea levels due to climate change are expected to exacerbate these impacts, making it more challenging for coastal communities to adapt and recover from these events.

Example: 2018 January coastal floods

Ngā maiki ā-ahi, ā-matū mōrearea hoki **Fires and hazardous substance incidents**

Lead Response Agency – Fire and Emergency New Zealand (FENZ)

Vegetation or wildfire can occur in forestry, agricultural production land, reserves and areas of scrub. Fires can be started naturally, by lightning strike, or accidentally by arcing from electricity supply lines or land management approaches, campfires and also from acts of arson. Fire is most common when ground moisture levels are low and relative humidity is also low, providing optimal conditions for fire ignition. High winds can also result in rapid spread leading to larger fires, providing mobilisation for hot embers and fanning flames.

Structure or urban fire events occur primarily in cities and towns, involving structures and posing the risk of spreading to adjoining buildings and endangering occupants. These can be started accidentally, or deliberately. They can affect homes and residences, schools, and commercial and industrial buildings. The type of structure affected, the contents and the construction materials used may also result in additional impacts, such as harmful substance release.

Climate change may result in more ‘hot fire days’ when the weather conditions (heat and dryness) are considered extreme and the forest fire danger rating is high, very high or extreme.

AEM supports FENZ to respond to fires and hazardous substance events, where there is a welfare need, such as evacuation support or temporary accommodation.

Examples: 2019 SkyCity Convention Centre Fire, 2013 Aotea Great Barrier Island fire.

Te ārewa ā-porihanga, te whakatuatea, te whakaeke ā-ipurangi rānei **Civil unrest, terrorism, or cyber-attacks**

Lead Response Agency – New Zealand Police

Civil unrest, terrorism and cyber attacks are hazards driven by people. They are incidents that disrupt communities and require intervention to maintain public safety. They include major demonstrations, riots, and strikes. Terrorism events involve the use of force or violence against people and property to further a cause through intimidation of governance and the general population. A cyber-attack is an assault launched by cybercriminals using one or more computers against single or multiple computers or networks. A cyber-attack can maliciously disable computers, steal data, or use a breached computer as a launch point for other attacks. Cybercriminals use a variety of methods to launch a cyber-attack, including malware, phishing, ransomware, and denial of service.

AEM supports the NZ Police during times of civil unrest, or in response to cyber or terrorism attacks where multi-agency coordination or welfare support is required, such as facilitating information sharing and evacuation support.

Examples: 1981 Springbok tour protests, 2019 Christchurch mosque attacks.





Appendix C: Te tukanga whakatauranga pae mō te aromatawai tūraru

Risk assessment rating process

The risk assessment process uses a severity rating to determine the likely level of consequence for each hazard within each of the four environments (social, built, economic and natural environment). Each environment is broken down further into individual elements (**Table 8**). These elements represent the measurable impacts a hazard may have on that environment and individual descriptors of increasing impact were developed for each element⁶⁷. These descriptors can be quantitative (e.g. damage to residential buildings as a percentage of the total residential building stock) or qualitative (e.g. impact to the psychosocial health of the region as measured by the demand on those healthcare providers) but align to a generalised severity rating of ‘Insignificant’, ‘Minor’, ‘Moderate’, ‘Major’ or ‘Extreme’.

During the hazard workshop, how the scenario will impact each element is considered by the group and the corresponding severity rating related to the appropriate consequence descriptor is noted against that element. These individual severity ratings are combined to create a qualitative severity rating for the environment and, finally, the hazard.

The likelihood of the hazard occurring was also transformed into a qualitative likelihood classification: ‘Rare’, ‘Unlikely’, ‘Possible’, ‘Likely’, ‘Almost Certain’ using the classifications in **Table 7**. The consequence and likelihood classifications were then combined to provide an overall risk rating for each hazard (shown in Chapter 3, **Table 1**).

Likelihood Classification	Likelihood Description	AEP (%)	ARI (Annual Return Interval) (rounded)
Rare	Almost certain not to occur but cannot be ruled out	<0.1	>1000
Unlikely	Considered not likely to occur	0.1 - <1	>100 - 1000
Possible	Could occur, but is not expected to	1 - <10	>10 - 100
Likely	A good chance that it may occur	10 - <63	>1 - 9.5
Almost Certain	Expected to occur if all conditions met	≥63	≤1

Table 7 Risk Assessment Likelihood classification

Social Environment	Built Environment
<ul style="list-style-type: none"> Deaths Injuries and illness (e.g., cuts, breaks, disease etc) Psychosocial impacts Caring for the elderly or vulnerable in their home Households in need of emergency or temporary accommodation Access to primary and community care Access to essential consumer products Welfare support – Household goods and services Welfare support – Emergency finance Welfare support – Inquiry services Education services – access to preschool, school, and tertiary services Community services – local government Community services – not for profit community support services Social wellbeing and connectedness – participation and inclusiveness Cultural wellbeing – ability to participate in cultural life, recreation, rituals, and activities Impacts to historical or culturally significant places and collections Impacts to rural communities Impact to non-New Zealand residents/citizens Impact to CALD communities Companion animals – pets, companion animals, non-production animals 	<ul style="list-style-type: none"> Damage to residential buildings Impacts to lifestyle blocks and non-primary sector properties Damage to commercial and industrial buildings Damage to government, non-commercial and community facilities Damage or loss of access to emergency facilities, impacting function (Excluding health facilities) Damage or loss of access to hospitals impacting function Impacts to parks and open spaces. Impacts to electricity supply Impacts to telecommunications Impacts to broadcasting and mass communications Impacts to fuel distribution and availability Impacts to potable water services (inc. water tanks and private bores) Impact to stormwater networks Impacts to wastewater services inc. wastewater facilities Impacts to regional flood schemes – stop banks, retention dams, pumping systems Impacts to roading network Impacts to rail network Impacts to Auckland International Airport, Whenuapai Air Base, and other airstrips Impacts to Ports of Auckland, city wharfs and other marine transport infrastructure Ability to operate key infrastructure (staffing) Waste generation and impact to facilities
Economic Environment	Natural Environment
<ul style="list-style-type: none"> Direct losses to individuals Direct losses to businesses, commercial entities, and industries Direct losses to local government Direct losses to central government Losses and disruption to the region's economic sectors/ industries/employers Direct impacts on employment/job sector Impact to local and regional economic drivers 	<ul style="list-style-type: none"> Air quality and associated ecosystem services Soil quality and associated ecosystem services Surface freshwater quality and associated ecosystem services Groundwater quality Marine environment and ecosystem services Regional parks, forests, and bush reserves Impacts to iconic flora and fauna species Impacts to significant environments or iconic landforms

Table 8 Ngā āhuatanga o te aromatawai tūraru i ngā taiao e whā Risk assessment elements within the four environments

⁶⁷ The consequence table as part of the risk assessment process provided prompts to consider a range of factors for each of the elements listed in Table 8.

Appendix E: Ngā Mahi me ngā Kawenga i roto i CIMS CIMS functions and responsibilities

The table below describes the functions involved in the CIMS model and the focus of each function. The functions are assigned a colour as a visual reference. See [Chapter 7](#) – Response for their application.

Function	Colour	Responsibilities
Control	White	Responsible for all activities and personnel involved in a response. Coordinating and managing the response objectives with organisations, communities and people responding to or affected by the event. Deputy Controller – carries out functions of the controller as delegated.
Controller's support	Red	Provide support to controller and response functions as required. Includes Technical Advisors and Experts, Response Manager, EA to Controller and Administration, iwi / Māori liaison (green and white pattern), Culturally and Linguistically Diverse (CALD) Community Advisory, Legal / Risk.
Safety	Green	Provides expert advice and oversight on issues relating to safety, health, and wellbeing within a response.
Intelligence	Dark blue	Collects and analyses information and produces intelligence related to context, impacts, consequences, and forecasts.
Planning	Pink	Plans for response activities and resource needs. Provides action plans, long term plans, contingency plans, transition plans (with Recovery).
Operations	Orange	Tasks, coordinates, and tracks execution of Action Plan. Manages field staff, volunteer coordination, support agency representative coordination, international assistance.
Logistics	Yellow	Provides supplies, transport, finance, information technology, facilities, catering, personnel, admin, and document management to support response activities. Includes ECC Manager duties – stand up ECC, send initial communications.
Public Information Management (PIM)	Purple	Media liaison, online media management, community engagement, stakeholder and partner liaison, information and warnings, internal communication.
Welfare	Light blue	Ensures planned, coordinated, and effective delivery of welfare services to affected individuals, whānau and communities, including animals.
Lifeline Utility Coordinator (LUC)	Orange	Regular contact with lifeline utilities, assessing impacts due to loss of services and infrastructure, communicating action plans and priorities to lifelines.
Recovery	Grey	Establishes core recovery team and leads/manages all recovery functions, maintains situational awareness for recovery, recovery planning and working with control and planning to plan and manage the transition from response to recovery.

Appendix F: Ngā Rōpū Ārahi e Hāngai ana ki ngā Mōrearea Lead agency by hazard⁶⁹

The table below sets out the lead agency by hazard followed by two examples of how agencies came together to support the lead agency in recent events.

Hazard	Lead agency at the national level	Lead agency at the regional /local level	Authority to manage response ⁷⁰
Geological (earthquakes, volcanic hazards, landslides, tsunamis)	NEMA	CDEM Group	Civil Defence Emergency Management Act 2002
Meteorological (coastal hazards, coastal erosion, storm surges, large swells, floods, severe winds, snow)	NEMA	CDEM Group	Civil Defence Emergency Management Act 2002
Infrastructure failure	NEMA	CDEM Group	Civil Defence Emergency Management Act 2002
Drought (affecting rural sector)	Ministry for Primary Industries	Ministry for Primary Industries	Government policy
Animal and plant pests and diseases (biosecurity)	Ministry for Primary Industries	Ministry for Primary Industries	Biosecurity Act 1993 Hazardous Substances and New Organisms Act 1996
Food safety	Ministry for Primary Industries	Ministry for Primary Industries	Food Act 1981 Food Act 2014
Infectious human disease (pandemic)	Ministry of Health	National Public Health Service – Northern region	Epidemic Preparedness Act 2006 Health Act 1956
Wildfire	Fire and Emergency New Zealand	Fire and Emergency New Zealand Department of Conservation (conservation estate) New Zealand Defence Force	Fire and Emergency New Zealand Act 2017 Conservation Act 1987 Defence Act 1990
Urban fire	Fire and Emergency New Zealand	Fire and Emergency New Zealand	Fire and Emergency New Zealand Act 2017
Hazardous substance incidents	Fire and Emergency New Zealand	Fire and Emergency New Zealand	Fire and Emergency New Zealand Act 2017 Hazardous Substances and New Organisms Act 1996

⁶⁹ National Civil Defence Emergency Plan Order 2015. (2023, April).

⁷⁰ Legislation available at legislation.govt.nz



Hazard	Lead agency at the national level	Lead agency at the regional /local level	Authority to manage response ⁷⁰
Terrorism	New Zealand Police	New Zealand Police	Crimes Act 1961 International Terrorism (Emergency Powers) Act 1987 Terrorism Suppression Act 2002
Major transport accident	New Zealand Police	New Zealand Police	Various
Marine oil spill	Maritime New Zealand	CDEM Group	Maritime Transport Act 1994
Radiation incident	Ministry of Health	Fire and Emergency New Zealand	Radiation Protection Act 1965 Fire and Emergency New Zealand Act 2017

Lead and support agency case studies

2019 Sky City Convention Centre Fire

On 22 October 2019, a fire broke out at the New Zealand International Convention Centre construction site in Auckland's CBD. FENZ responded to the fire which occurred on the roof and the 7th floor of the building. Crews were unable to gain access to the fire due to the structural integrity of the roof. FENZ, in coordination with AEM and partner agencies, sent out an Emergency Mobile Alert to share key health messages with residents and businesses in the city centre. AEM initiated a partial activation of the ECC at alert level yellow shortly after the fire broke out to support FENZ. AEM provided coordination for agencies by convening teleconferences to discuss the ongoing response to the fire. AEM was also preset at the FENZ Incident Control Point. The Crisis Management Team for Auckland Council activated to respond to the closure of various Auckland Council buildings and to ensure continuity of council services. AEM's PIM team provided communications on air quality, water, traffic, and welfare considerations. The response was led by FENZ, with support from AEM and the wider council whānau.

2021 Papatoetoe Tornado

Early morning on the 19 June 2021, the suburb of Papatoetoe was hit by a tornado. Its path moved from north to south, touching down several times from the Grange Golf Course and lifting off at Wiri Container Depot. This sadly resulted in one fatality, 62 uninhabitable homes and severe damage to numerous houses and businesses. FENZ and Urban Search and Rescue (USAR) activated to perform house-by-house initial damage assessments of approximately 200 homes. Power was out for 2000 homes in the area and water and sewerage outages were reported within the strike zone. AEM activated their ECC at alert level yellow, with input from the core CIMS functions and Ministry of Social Development. An Operations Liaison from the AEM response was sent to the FENZ ICP in Papatoetoe, to coordinate AEM's response into the FENZ operational area. For the first 48 hours, the Papatoetoe ICP was led and controlled by FENZ as they undertook the initial search and rescue and building inspections. The Papatoetoe ICP was handed into AEM ECC operational control when the FENZ ICP stood down and the AEM ICP moved locations, to the Papatoetoe Fire Station. At all times the response was led by AEM at the wider coordination level, with FENZ leading the initial operational response at the ICP level, whilst also supporting AEM's wider response alongside supporting welfare agencies.

Appendix G: Rārangī Kupu Glossary

Adaptive capacity is the ability of a system, community or society exposed to hazards to cope with, absorb, and recover from the effects of an adverse event effectively and in a timely manner.

Administering authority is the authority established under section 23 of the Act with the functions described in section 24 of the Civil Defence Emergency Management Act 2002.

Capability means the effectiveness of cooperation and coordination arrangements across agencies for the delivery of resources in the event of an emergency.

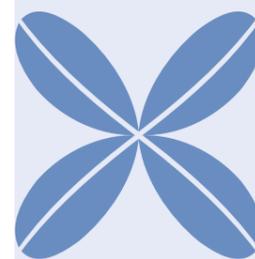
Capacity means the adequacy of resources in terms of quantity, and suitability of personnel, equipment, facilities and finances.

Civil Defence Emergency Management Group (CDEM Group) means a group established under section 12 of the Act. In Tāmaki Makaurau, it is established as the Auckland CDEM Committee. Further detail on role and responsibilities contained in the Management and Governance chapter.

Community Emergency Hubs These are places run by communities to support affected communities in an emergency. They are not managed or run by AEM or Auckland Council staff. They offer a place where the community can meet, support and help each other and make decisions together about how to best ensure the safety and comfort of everyone in their community during an emergency. A Community Emergency Hub can also provide local, on the ground information back to the Emergency Coordination Centre. This can include requests for ad hoc resources to meet specific needs. Community Emergency Hubs are activated by the community as and when they think there is a need which they can resource. This often occurs in the initial 24 to 36 hours of a response.

Coordinating Executive Group (CEG) is chaired by the Chief Executive of Auckland Council, responsible for advice, oversight and the delivery of the Group Plan. CEG membership includes emergency services, health providers and lifeline utilities. Further detail on role and responsibilities contained in Management and Governance.

Civil Defence Centre These are places set up and run by AEM and staffed by Auckland Council staff, welfare organisations and central government agencies to support the community in emergencies. They are equipped to provide affected people with a safe place to eat, sleep and access essential support services. Civil Defence Centres are activated by AEM based on community need and informed by conversations with local board elected members and other stakeholders.





Civil Defence emergency refers to the civil defence aspects of any emergency managed under the Act where emergency means a situation that:

- c. 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 war-like act; and
- d. 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
- e. cannot be dealt with by emergency services, or otherwise requires a significant and coordinated response under the Act.

Director has the same meaning as in section 4 of the Act, where the term means the Director of Civil Defence Emergency Management appointed under section 8.

Emergency is defined under Civil Defence emergency above.

Emergency services has the same meaning as in section 4 of the Act, where the term means the New Zealand Police, Fire and Emergency New Zealand, and providers of health and disability services.

Group Controller is the person appointed Group Controller under section 26 of the Act with those functions set out in section 28 of the Act. The Group Controller must, during a State Of Emergency for the area for which the Group Controller is appointed, direct and coordinate the use of personnel, materials, information, services, and other resources made available by departments, CDEM Groups, and other persons.

Group Plan means the Auckland Civil Defence and Emergency Management Group Plan, required by section 48 of the Act.

Hazard has the same meaning as in section 4 of the Act, where it means something that may cause, or contribute substantially to the cause of, an emergency.

Hazardscape means the natural processes and events, and human actions that may cause harm or disruption to people's lives and livelihoods.

Internally displaced people refers to persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalised violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognised border.

Kaupapa Māori is a Māori approach, customary practice, institution, agenda, principle or ideology incorporating the knowledge, skills, attitudes and values of Māori society.

Kura means a primary school operating under Māori custom and using Māori as the medium of instruction.

Lead agency means the organisation with current responsibility for managing an emergency.

Lifeline utility has the same meaning as in section 4 of the Act, where it means an entity named or described in Part A of Schedule 1, or that carries on a business described in Part B of Schedule 1.

Mana whenua are Māori with ancestral relationships in certain areas in Tāmaki Makaurau where they exercise customary authority. The tribe's history and legends are based in the lands they have occupied over generations. Auckland Council recognises nineteen tribal authorities as representing mana whenua interests in Auckland.

Mātauranga Māori is the body of knowledge originating from Māori ancestors, including the Māori world view and perspectives, Māori creativity and cultural practices.

Mataawaka are Māori living in the Auckland region who are not in a mana whenua group.

Minister has the same meaning as in section 4 of the Act, where it means subject to any enactment, the Minister of the Crown who, with the authority of the Prime Minister, is for the time being responsible for administration of this Act.

National Disaster Resilience Strategy (the NDRS) means the National Civil Defence Emergency Management Strategy completed under section 31 of the Act, pursuant to section 34 of the Act.

Partner agencies are member organisations of the Coordinating Executive Group (CEG). CEG membership includes emergency services, health providers and lifeline utilities.

People disproportionately affected by disasters are described in the National Disaster Resilience Strategy. Applying a strengths based approach to support disaster resilience, the National Disaster Resilience Strategy encourages working with disabled people, children and youth, culturally and linguistically diverse communities and rural communities.

Plan (the Plan) means the National Civil Defence Emergency Management Plan Order 2015.

Readiness means developing operational systems and capabilities before an emergency happens, including self-help and response programmes for the public and specific programmes for emergency services, lifeline utilities, and other agencies.

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.

Recovery Manager is the person appointed to coordinate recovery activities within the region in the short, medium and long term to ensure a holistic approach to recovery incorporating the social, economic, built, lifeline utility and rural environments.

Reduction means 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 the likelihood of their occurrence to an acceptable level.

Response means the actions taken in anticipation of and immediately after an emergency or disaster to ensure that its effects are minimised, and that people affected are given immediate relief and support.

Risk has the same meaning as in section 4 of the Act, where it means: the likelihood and consequences of a hazard.

Safe refuge spaces refer collectively to Civil Defence Centres, Shelters or Community Emergency Hubs.



Shelters These are places run by AEM and staffed by Auckland Council staff and welfare organisations during an emergency. They provide a place to be safe while the worst of the event (e.g. weather) passes. Blankets and hot drinks will be available, but shelters are not equipped for longer stays. Shelters are activated by AEM.

Support agency has the same meaning as in the schedule of the Civil Defence Emergency Management Plan Order 2015 where the term means any agency, other than the lead agency, which has a role or responsibilities during the response to an emergency.

Tikanga are Māori customary practices or behaviours. The concept is derived from the Māori word ‘tika’ which means ‘right’ or ‘correct’. In Māori terms, to act in accordance with tikanga is to behave in a way that is culturally proper or appropriate.

Welfare Manager is responsible for coordination of the delivery of welfare services during and after an emergency. Pre-emergency, they are responsible for providing input on welfare-related reduction measures and coordination of welfare readiness. During recovery, the Welfare Manager is responsible for the strategic coordination of welfare needs.

Unitary authority is a city or district council named in Part 2 of Schedule 2 of the Local Government Act 2002.

4 Rs has the same meaning as in the schedule of the Civil Defence Emergency Management Plan Order 2015 where the term means:

- a. 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 the likelihood of their occurrence to an acceptable level); and
- 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); and
- 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 (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).

Appendix H: Ngā whakapoto Abbreviations

AEM – Auckland Emergency Management	IMSB – Independent Māori Statutory Board
ALG – Auckland Lifelines Group	IMT – Incident Management Team
AWCG – Auckland Welfare Coordination Group	LIM – Land Information Memorandum
BCP – Business Continuity Plans	LUC – Lifeline Utility Coordinator
CALD – Culturally and Linguistically Diverse communities	MPI – Ministry for Primary Industries
CCO – Council Controlled Organisation	NCMC – National Crisis Management Centre
CCWG – Capability and Capacity Working Group	NDRS – National Disaster Resilience Strategy
CDEM – Civil Defence and Emergency Management	NEMA – National Emergency Management Agency
CEG – Coordinating Executive Group	NHRMAP – Natural Hazard Risk Management Action Plan
CIMS – Coordinated Incident Management Systems	NSS – National Security System
DPMC – Department of Prime Minister and Cabinet	NWCG – National Welfare Coordination Group
ECC – Emergency Coordination Centre	NZ – New Zealand
EOC – Emergency Operations Centre	PIM – Public Information Management
EQC – Earthquake Commission	PTWC – Pacific Tsunami Warning Centre
FENZ – Fire and Emergency New Zealand	RRANZ – Response and Recovery Aotearoa New Zealand
GECC – Group Emergency Coordination Centre	SOP – Standard Operating Procedures
GEMO – Group Emergency Management Office	Te Ao Māori – the Māori world view
GIS – Geographic Information Systems	WAP – Wiri to Airport Pipeline
ICP – Incident Control Point	
ICT – Information and Communications Technology	



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