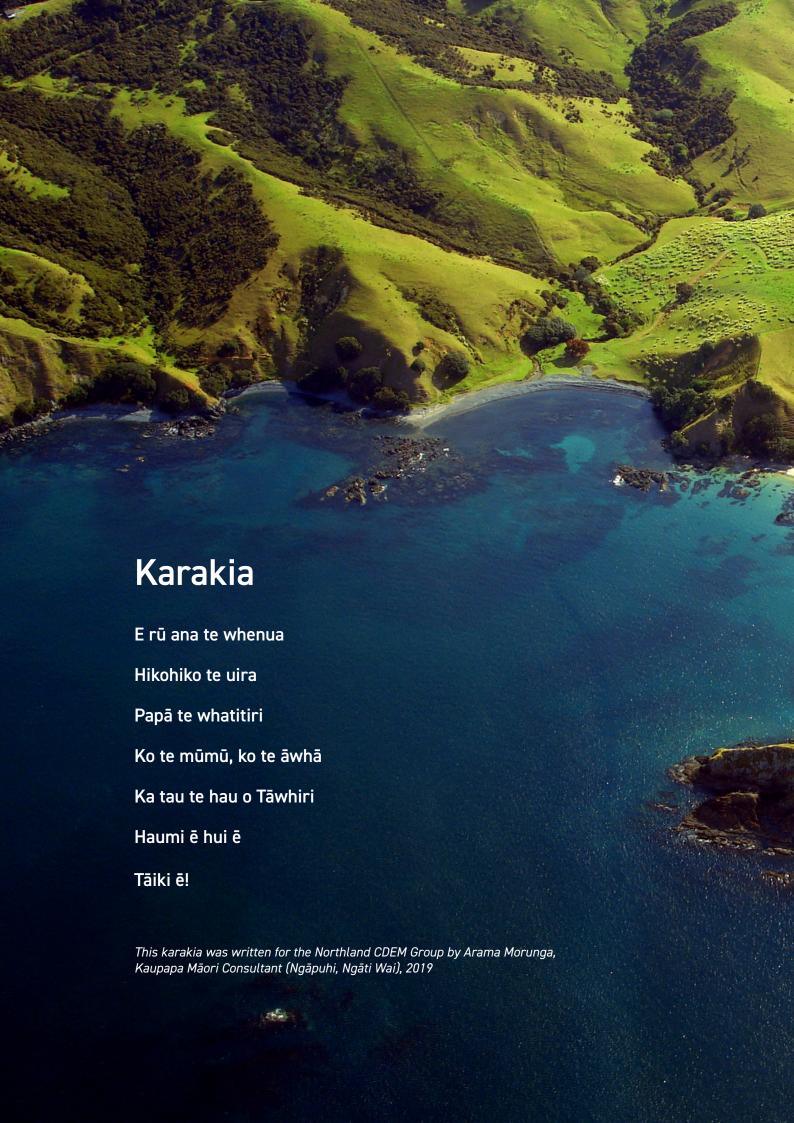


Cyclone Gabrielle 2023

Regional Recovery Plan for Northland Te Mahere Whakaoranga mō Te Tai Tokerau







Tīmatanga kōrero Introduction

Tēna koutou. Tēna koutou. Tēna tātou katoa. Ngā mihi nui ki ngā hapori, ngā iwi, ngā hapū, ngā whānau katoa o Te Tai Tokerau.

Cyclone Gabrielle was the largest emergency event that Northland has seen in a generation. Some of the impacts on our natural environment, built infrastructure, economy, and the diverse communities of Tai Tokerau will be felt — and remembered — for years.

In the middle of this disaster, destruction, and uncertainty were also acts of bravery, hope, and community spirit. Neighbours looked out for one another; marae opened their doors; and local businesses, farmers, and community organisations made sure that people had food.

Emergency responders, power company employees, roadworkers, telecommunications technicians, and many others worked around the clock, often in dangerous conditions. In the background, dozens of staff at Northland Civil Defence Emergency Management and the three District Councils' Emergency Operations Centres coordinated emergency services, responded to welfare needs, and organised support for councils' Civil Defence Centres. Community-Led Centres were often set up by local Māori social service providers, rūnanga, or simply local hapū wanting to help their communities.

When the rain and wind passed, our thoughts, hearts, and prayers turned to people across Aotearoa who had been hit hard. Many of us sent donations south. Some first responders and Civil Defence team members from Northland travelled to other areas to help with their response efforts.

At times, some of us thought we'd got off easy. And, comparatively, many of us had. But this doesn't lessen the real effects that Cyclone Gabrielle — and the flooding at Mangawhai — had here.

This Regional Recovery Plan captures some of those impacts — not only in statistics, but in the stories of the people of Te Tai Tokerau, told in their own words. This document also shows some of the enormous efforts to restore infrastructure during the event, as well as steps that community members took throughout the region.

But this Plan's main purpose is to look to the future — what are we doing in the coming months to continue this Recovery? What needs to happen next year — and the year after?

Throughout this Plan, the voice of community members is strong. The overall visions for this Recovery have been set by communities. People across Te Tai Tokerau have also suggested ideas for repairing, restoring, and rebuilding. Some of their suggestions have already been taken up directly not only in their own local communities, but also by critical utility providers and governments. Some remain as serious wero for the future.

By working together, iwi and hapū, government, businesses, farmers, community groups, workplaces, and the people of Te Tai Tokerau will recover from Cyclone Gabrielle. This will take longer for some than others, and some of the mamae will remain for years.

But we know that severe weather events are likely to be more frequent, more ferocious, and longer lasting. We need to take the lessons from Cyclone Gabrielle, and recover from this event, but also prepare — to protect the natural environment that sustains us, and to be ready for the future.

Kelly Stratford (nō Ngāpuhi, Ngāti Wai, Ngāi Te Rangi)

Chair, Northland Civil Defence Emergency Management Group

Kahurangi, Te Rākau Whakamarumaru o Te Tai Tokerau

Contents Rārangi upoko

Kōrero tīmatanga | Introduction

Purpose of this plan Ngā whāinga o te mahere nei	1
A record-breaking event	2
What made a difference?	4
The transition to Recovery Te whakawhitinga ki te mahi whakaoranga	7
Northland CDEM Group Recovery structure	8
Community consultation He whakawhiti kōrero tahi tātou ko ngā hapori o te rohe	10
Community visions for Recovery Nga manako mō te whakaoranga	11
Community Recovery in action E mahi tonu ana te whakaoranga hapori	14
Recovery Programme Groups Ngā Pou Whakaoranga	15
Community Wellbeing He Oranga Hapori Whānui	16
Critical Infrastructure He Hanganga Matua	17
Rural Support He Āwhina ki ngā Takiwā Taiwhenua	21
Marae Preparedness He Mahi Whakarite Marae	26
Economic impact and support Ngā pānga ohaoha, he mahi āwhina	28
Northland Councils' recovery actions	30
Northland Regional Council Te Kaunihera ā rohe o Te Taitokerau	30
Far North District Council Te Kaunihera o Tai Tokerau ki te Raki	32
Kaipara District Council Kaipara te Oranganui	36
Whangārei District Council	44
Reporting, monitoring, and evaluation He mahi tuhi pūrongo, aroturuki, arotake	51
Winding down and exit strategy Te otinga	52
E whai ake nei And after that	53
Appendix — Acronyms list	54

Purpose of this plan Ngā whāinga o te mahere nei

A more prepared society who uses this event as the baseline for the future and plans accordingly. Changes to housing codes, building codes, resource use, scaled up drainage, more robust power and comms systems, and so on.

— Martin

Better resilience planning, and good decisions being made for our infrastructure, particularly roading and telecommunications. The cyclone really highlighted how susceptible to damage and isolation Northland is with very few access routes. — Min

This Regional Recovery Plan captures the key Recovery work needed in Te Tai Tokerau Northland due to Cyclone Gabrielle, and the subsequent rain and flood event at Mangawhai, which affected our region for two weeks in February 2023.

The national model for Civil Defence Emergency Management (CDEM) in Aotearoa New Zealand is based on 'the four Rs' of Reduction, Readiness, Response, and Recovery. (Throughout this document, we capitalise 'Response' and 'Recovery' to show their formal status under this model.)

The Response for Cyclone Gabrielle occurred primarily during the declared State of Emergency. Response is a period of high-intensity work, coordinated in Te Tai Tokerau by Northland Civil Defence Emergency Management, and involving partners such as iwi and hapū, Police, Fire and Emergency New Zealand (FENZ), Hato Hone St John, Te Whatu Ora, New Zealand Defence Force, members of the Northland Lifelines Group (critical infrastructure), Northland Adverse Events Team (rural sector), Welfare Coordination Group (social and community services sector), Northland's three District Councils, and many others.

Following Response comes the formal Recovery period. For events of the scale and impact of Cyclone Gabrielle, this period takes longer, involves more people, and requires more resources,

including funding. This work is again coordinated by Northland CDEM, led by the statutory role of Group Recovery Manager, with work completed by Regional and District Councils, and a wide range of partner agencies.

This plan covers short, medium, and long-term actions that the District and Regional Councils will be taking, along with the rural sector and critical utilities.

However, while these are the larger and more public aspects of Recovery, civil defence in New Zealand involves everybody, from individuals to households, neighbours, suburbs, towns, marae, workplaces, and communities of interest. Recovery therefore also involves everyone.

So, this Plan also offers snapshots of steps that people are taking across Te Tai Tokerau — practical actions to help each other to get through, small acts of kindness, community projects, ideas for future plans, and much, much more.



1

A record-breaking event

I live at Baylys Beach and the storm was ferocious. I was fortunate that I was able to get home after a tree fell across the road. — Liz

We experienced gale-force winds and abundant rain. — Lynn

Mangawhai was literally cut off from the rest of the country. What I witnessed was disheartening. Low-lying houses and properties were flooded. Infrastructure was overwhelmed by the sheer amount water. After working my shift at the Emergency Operations Centre, I assisted with evacuating a neighbour's friend from the estuary as she lived alone. — 'Sads'

On February 8, Cyclone Gabrielle formed in the Coral Sea. MetService issued a severe weather warning for Te Tai Tokerau Northland, including both a red severe rain warning and severe wind warning.

The cyclone hit the northern parts of Northland, increased in rain intensity further south near Whangārei, and then lashed Northland's west coast in its wake. Dargaville was especially hit, with overtopping and flooding leading to evacuations over three days. Mangawhai was then hit by a severe weather event on 24 February.

These events had many significant features around Northland, some of them record-breaking:

- The Northland region as a whole received 342 mm of rain during seven days, with Glenbervie Forest recording 420 mm.
- One-in-100 year rainfall amounts over 48 hours were recorded at six sites; one site recorded a one-in-250 year rainfall.
- Wind speeds reached gusts of 165 km/hour.
- Rainfall of 63 mm/hour was recorded for a sustained period on the Pouto Peninsula.
- The cyclone brought large waves, storm surges, and coastal inundation. In the Bay of Islands, a wave buoy recorded a wave height of 10.9 metres.
- Four rivers exceeded heights from all previously recorded maximums on record.

On Sunday 12 February at 4:30 pm, Northland CDEM declared a Regional State of Emergency. At 8:43 am on Tuesday 14 February, a National State of Emergency was declared by the Prime Minister and Minister for Emergency Management. This was only the third time that a National State of Emergency had been declared in New Zealand.



Impacts

Major impacts included damage to State Highway 1 between Northland and Auckland, with access to the region significantly restricted for some days. Other concerns and impacts included:

- · access to food and fuel
- wind and tree damage causing widespread power outages across the region (peaking at about 46 000 customers at one time, and 64 000 total customers affected across the event)
- widespread communications outages (approximately 30 000 customers)
- approximately 60 grocery stores and supermarkets had interrupted delivery of food and other essential items
- a total of 86 Northland schools sustained damage of varying levels from minor to extensive.

The extent of the electricity outages is captured in the images below.

During much of the event, many Northlanders were also without communications:

- more than 200 communications towers were non-functional for two days
- approximately 40 000 Spark customers did not have mobile/cell phone coverage
- 29 100 customers were without fibre connections.

This limited the ability of families and communities to know if others were safe and for other critical infrastructure providers, and emergency services, to be contacted.

Throughout Northland, 17 houses were red-stickered (entry prohibited/assessed as unsafe to inhabit), and 30 yellow-stickered (restricted access/assessed as significant damage and/or risk).

Seven vessels sunk at their mooring due to rain or waves and a further 17 ran aground. Three beacons were destroyed. All shipping was suspended in Northland's harbours.

Northland farms were significantly affected. Nearly 70% of the region's kūmara crop was destroyed, more than 250 dairy farms without power during the event, and at least 150 dairy farmers had to dump milk. Some stock animals were killed, and fruit and vegetable crops damaged.



Northpower outages as at 13 February



Top Energy outages as at 13 February

What made a difference?

I really appreciated my rural community's neighbourhood watch group on Facebook. It was the fastest and most reliable way to know about local road closures, slips, and power outages. I was grateful for neighbours keeping in touch.

As soon as the storm had eased enough for it to be safe to leave home, a neighbour came and looked after my kids so that I could check our property and animals while knowing my kids were safe and dry inside. Local contractors offered services to our community (e.g. roofing repairs, arborists) and neighbours were quick to offer help.

Our local marae showed swift leadership in providing shelter and support. School and kindy were quick to make decisions about closing, and communicated this in a timely way, which was helpful. — Anonymous

During the community consultation/whakawhiti kōrero for this Recovery Plan, we asked, 'During the cyclone, and in the days that followed, what did you find most helpful? What were you thankful for? What examples did you see of people helping each other? What is helping your community get through this?'

Members of diverse communities of Te Tai Tokerau offered hundreds of answers. Just a few are included here; many more appear in the companion booklet to this Plan, Cyclone Gabrielle and Te Tai Tokerau Northland: Stories of community resilience and messages of support for the rest of Aotearoa New Zealand.

Comments revolved around some key themes. These are captured here, with various community members' voices giving examples. These are not in any particular order, or order of importance — just the order in which the theme emerged.



Rural community spirit

I realised that once you have sorted your immediate household, then you can help others. Locals were very generous with their solar — charging cellphones, etc. We live in a small rural community, so having a 'rural' mindset helps you to cope with the conditions. People are aware of their neighbours' needs. — 'WRRA'

Community members helping with clean-up and repairs

My neighbour saw us struggling on our verandah in the heart of the cyclone late at night and gave that third pair of hands allowing me time to screw things down. We couldn't hold much longer — he came at just at the right time, for which I'm thankful. — Taane

Community connection

My disabled community kept in touch with each other. — Glen

Family, friends, and neighbours checking in

Whānau and neighbours checking in on each other to ensure everyone was safe, had food, and didn't need any urgent assistance on their properties. Staying connected is helping our community get through this. — Jacine

Community sharing resources

I saw the community chipping in by offering shelter, food, and showers to those affected.

— Hamske

Community-led Civil Defence responses

That there was a Community Response Group who were able to assist. The local community came together to sort out fallen trees and debris on roads. — 'Feet still wet'

Household preparations

Being prepared with basics like food, water, camp cooking, and flashlights was helpful during the storm. — Anonymous



Emergency services

Amazing efforts by Civil Defence, power companies, roading, NZ Police, FENZ, and the community. Just getting it done! — Anonymous

Support by iwi, rūnanga and Māori social services

Iwi health organisations such as Te Ha Oranga and the rūnanga were amazing in helping with hands-on assistance such as food packs, Starlink, gas bottles etc. — 'KP'

Warnings and enough notice to prepare

Having received a warning on my mobile phone was most helpful. I was able to make sure I got enough supplies to last for three days and would not have to go out on the roads when the cyclone hit Kaikohe. — 'Care Bear'

Communication from Northland CDEM

Transparent communication from Civil Defence and Council regarding the current state of affairs within the region. Power companies being clear about their issues and timeframes around resolution. Communication from our Mayor and Deputy Mayor was wonderful. — 'Anon.'

Marae manaakitanga

The local community marae, Tauteihiihi in Kohukohu, opened its doors to support whānau in need, with water, kai, showers, and support. We were so supportive as whānau looked after each other. — Patricia

Support from Northland Civil Defence Emergency Management

I was grateful for the McKay Stadium facilities when I self-evacuated on Valentines' Day with people who were in situations worse than mine and had others with them. I'm really grateful for the government grant to help with costs I can't meet in fixing the damage and for it being available quickly so I can make a start. — Dave

Communication and media

The most valuable thing I think we can agree on is the passage of information. Social media played a big part in getting information in and out to members of the public that needed it. — Tom

Continuity of services during the event

It was extremely helpful to have internet connectivity to keep up to date with the progress of the storm. — Scott

Support from District Councils

The free green waste at dumping stations really helped people a lot. — Stacey

Radio

Communications on the radio, as my radio was all that worked. — Maree

Having alternative forms of communication

Copper wire phone line saved us but is considered old tech and we can't upgrade (turned out copper wire helped keep us remain connected). — Viv



Power being restored

Power companies made amazing effort to get power back on (and therefore cell towers). — Jim

Roads being reopened

Appreciated the efforts of contractors in getting slips cleared really quickly. — Howard

Trees being cleared away

Trees being cut back as they fell on SH 1 so I was thankful I could get home from work reasonably safely. After the storm, a lot of people helped with tree clearing. — John

Farmers supporting each other

We saw how well the farmers without power worked together to share generators and cowshed. Then Fonterra stepping up to have lost milk paid for. A sense of camaraderie and government financial help has been great. Still a lot of repercussions to come. — Marty

Support from local businesses

The local bakery, 4 Square, and Caltex garage donated food and drink. — Barry

Solar power

We are lucky enough to have solar power panels and batteries — this means that we were not reliant on the power grid. — Kim

Grateful for not being too badly affected

Thankful that none of our whānau were seriously hurt and survived with the support of each other coming together, sharing kai, and experiences.

— Lizzie

Knowing it could have been worse

We were pretty lucky compared to other areas. Seeing people worse off put my situation in perspective. — Zak



The transition to Recovery Te whakawhitinga ki te mahi whakaoranga

Recovery planning began during the Response. Northland stood down its Emergency Coordination Centre on Saturday 25 February. Given the significant rain event that affected Mangawhai and other areas on 24 February, and thunderstorm activity in the following week, Northland formally transitioned to Recovery on Thursday 2 March.

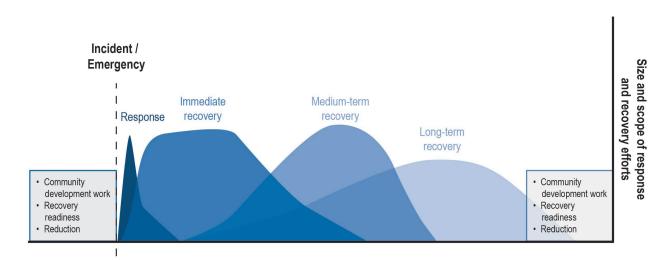
A National Transition Period applies to Northland from 3 March 2023 to 1 June 2023. Transition Periods allow for the use of certain powers under the Civil Defence Emergency Management Act 2002 (CDEM Act). While we do not expect to have to use these powers, they could be used, for example, if roads need to be closed to make repairs.

Recovery phases

Recovery is often thought of as having have four phases:

- Recovery in Response
- immediate Recovery/short-term
- medium-term Recovery
- long-term Recovery.

These phases overlap, and typically have different lengths of time and intensities of work. The following is not a literal representation of this work, but gives a sense of its ebbs and flows:



For Northland's Recovery, the District Councils and critical infrastructure providers/'Lifelines' utilities have used these phases in this Plan to roughly coincide with financial years:

- short-term: to June 2023
- medium-term: July 2023 to June 2024
- long-term: July 2024 to June 2025.

This timing allows for clear timeframes for actions to be completed and reported on, and for necessary funding in each organisations' annual planning and budgeting processes.

Northland CDEM Group Recovery structure

The Recovery from Cyclone Gabrielle will require sustained coordination and collaboration with Recovery partners and the community. The Civil Defence Emergency Management Group Recovery Structure below will coordinate the delivery of this Recovery Plan.

The four Recovery Programme Groups of Community Wellbeing, Critical Infrastructure, Rural Recovery, and Marae Preparedness will coordinate much of the necessary region-wide Recovery work. Specific work within Northland Regional Council and each District Council will be coordinated by those Councils.

Recovery work also will be done by many other groups — such as economic support by Northland Inc; community-level Recovery and preparedness for future events by marae, iwi, and hapū; and Community Response Groups. And, as ever, communities across Northland will do all sorts of (sometimes invisible) work, whether that's at schools, workplaces, religious communities, neighbourhoods, and so on.

For the formal Recovery mahi, the Group Recovery Manager will coordinate planning, programme management, monitoring, and communication. Over time, the agencies with a mandate to provide services will operate as business-as-usual, and the Recovery Team will wind down. That timeframe is unknown at this stage, but it is likely to be at least twelve months.

Māori representation, accountability, and advisory support

The Recovery Structure on the following page builds in Māori representation, accountability, and advisory support at all levels, including governance, executive leadership, management, operational/Recovery Team members, and the Recovery Programme Groups. This is an ethical orientation in relation to He Whakapuntanga me Te Tiriti o Waitangi.

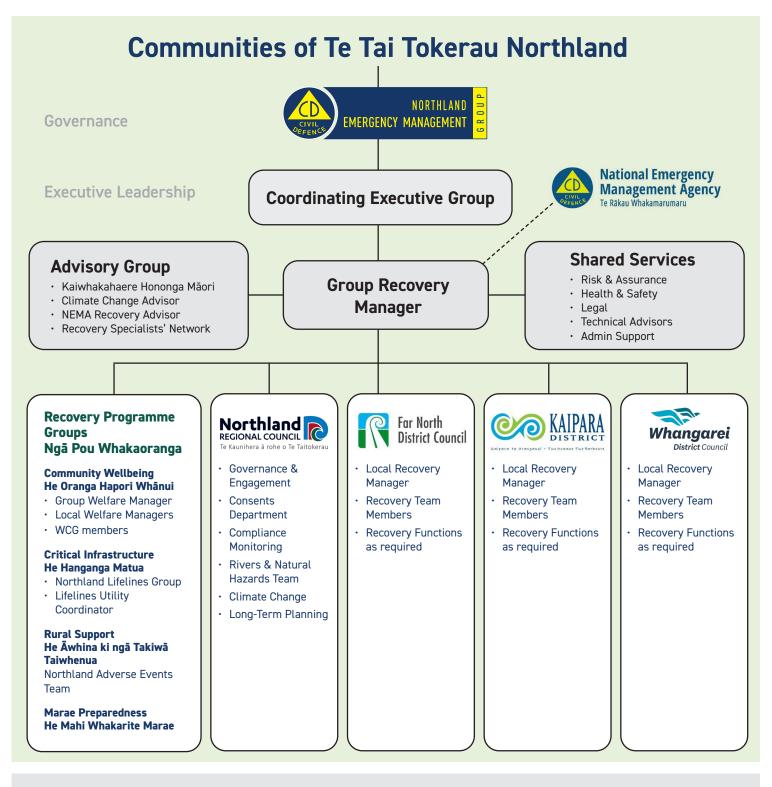
Governance

The Cyclone Gabrielle Recovery Governance Group comprises the following members:

- Mayor Vince Cocurullo (WDC)
- Councillor Jack Craw (Deputy Chair of Northland CDEM Group)
- Mayor Craig Jepson (KDC)
- Mariameno Kapa-Kingi (Te Kahu o Taonui)
- Chair Tui Shortland (NRC)
- Deputy Mayor Kelly Stratford (Chair of Northland CDEM Group)
- Snow Tane (Te Kahu o Taonui)
- Mayor Moko Tepania (FNDC)
- Northland CDEM's Group Recovery Manager (providing strategic advice).

Ultimately, though, this Recovery work is accountable to the communities of Te Tai Tokerau, and so the Recovery planning content that we'll now turn to starts with community visions for Recovery, as well as Recovery work that people across Northland have told us they're doing.

Northland CDEM Group Recovery Structure - Cyclone Gabrielle 2023



Recovery Functions Communications **Information** Strategy & Planning Community Māori Support Finance & **Project** & Community Management & Coordination Wellbeing Resourcing Service Engagement **Monitoring** Te Ao Māori Comms strategy Regional Initial Oversight Leading Recovery Resourcing staff Community Recovery Action of Recovery Indicator for Recovery Tikanga Social media Plan Programme Wellbeing Dashboard **Functions** Te Reo Māori Mass media Groups Recovery Monitoring GECC Regional Establishing Programme Community Community Recovery Plan Oversight of Intel comms finance systems Group engagement engagement District Council Operational Research and IT support Coordinating delivery structure & statistics Database support welfare delivery scheduling Coordinating special projects

Community consultation He whakawhiti korero tahi tatou ko nga hapori o te rohe

To find out community visions for Recovery and community mahi already occurring, during March and April 2023, Northland CDEM ran a community consultation/whakawhiti kōrero project. We asked questions in community settings, face-to-face interviews, and in an online survey that was passed on to community members by community groups and social service providers, hapū and iwi, rural peak bodies, community leaders, and many others.

The idea behind this community korero was to give people a chance to 'take a step back', and reflect not only on their own circumstances, but those of their wider area, networks, communities of concern, schools, workplaces, social groups, and so on.

Our approach was based on the idea that community consultation — done well — can itself be a site for relieving social suffering. Rather than extractive, or re-traumatising, it can be healing of people and their communities.

Community consultation can also bring to light solutions — not only for the current event, but also for Reduction and Readiness for future events — that might otherwise be lost. In this way, we can 'rescue' people's lived experience, and turn it into actions that benefit wider communities and help increase future resilience.

To do this, we asked four simple sets of questions:

- 1. How were you and your community affected by Cyclone Gabrielle?
- 2. During the cyclone, and in the days that followed, what did you find most helpful? What were you thankful for? What examples did you see of people helping each other? What is helping your community get through this?
- 3. What are your hopes and dreams for your community in the coming months after Cyclone Gabrielle? What does 'Recovery' from Cyclone Gabrielle look like to you?
- 4. Some other areas of Aotearoa New Zealand were affected pretty badly. What message of support, āwhina, or encouragement might you have for them at this time?

The first question allowed people to answer about effects on themselves and their community, whether physical, mental, or otherwise.

The second question elicited stories of how people responded to these challenges, and how they're getting through, based on the idea that no-one is a passive recipient to tough times or major events.

Asking about 'hopes and dreams' is what provided both the ideas for the community-led visions for this Recovery, as well as practical ideas for actions and projects.

And the final question allowed us, as Northland, to collect messages of hope and support to share with the rest of the country as a taonga. (Responses to this question are not included in this Plan, but in the companion document that captures answers to all of these questions, Cyclone Gabrielle and Te Tai Tokerau Northland: Stories of community resilience and messages of support for the rest of Aotearoa New Zealand.)

Woven throughout this Plan are community voices. The following section contains some of the communities' visions for this Recovery.

Community visions for Recovery Nga manako mō te whakaoranga

Recovery to me is not just getting back to how things were, but being better prepared for the future. — Erica

Recovery from the cyclone looks like preparing and resourcing our communities/marae to be the first responders as they have been over the last few years through cyclones, floods, drought, and COVID. — 'Whangaruru Whānau'

All properties are repaired, displaced people are re-homed, and farmers are assisted. — Kim

My hope is that infrastructure, roading, and communication systems will improve in Northland to ensure the community can endure future catastrophes. Recovery means regaining a sense of positive normalcy, access to support, and a community that is there for each other. — Gabi

New Zealand's CDEM Act defines 'Recovery' as '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'.

The main guideline for Recovery planning in Aotearoa further states: 'Communities lie at the core of recovery. Every recovery vision, outcome, relationship, and activity should have the community at the core of its purpose'.

But Recovery means different things to different people. Beyond the facts of the event, what constitutes 'Recovery' will depend on how people and communities *experience* the event and the *meaning* they attribute to these experiences. Recovery will then also depend on what people and communities think 'should come next', based on what they *give value to*.

In that context, this Regional Recovery Plan takes its definitions of 'Recovery' — and its overall visions for the Recovery from Cyclone Gabrielle — from communities across Te Tai Tokerau Northland. These were drawn from responses to the questions in the community consultation/whakawhiti kōrero: 'What

are your hopes and dreams for your community in the coming months after Cyclone Gabrielle? What does 'Recovery' from Cyclone Gabrielle look like to you?'.

One response in the community survey/whakawhiti kōrero project was representative of many — and sums up the interconnection of many issues:

Greater regional, community, and household self-reliance. In particular, a focus on our food security and energy needs. A thoughtful and creative response to the precarious nature of our roads. Let's not invest millions on existing roads that are not fit for purpose, and instead think creatively about transport and how our region can stay connected without massive rebuild projects on roads that will likely fail again. I'd like to see marae and hapū leadership acknowledged and resourced appropriately. We need to consider emergency alerts to cell phones for all those of us who have limited reception — I didn't receive the text about the regional state of emergency. Also, let's consider our soils and our waterways and how we can best support their health. I'd like to see households, communities, and workplaces that are educated, ready, and well prepared for future events. Affordable solar options would help. — Anonymous



Other comments revolved around some key themes — these are captured below, along with various community members' voices giving examples. These are not in any particular order, or order of importance — just the order in which the theme emerged.

This is only a snapshot of community members' voices about what Recovery looks like to them. For a more fulsome account, see the companion booklet to this Plan, *Cyclone Gabrielle and Te Tai Tokerau Northland: Stories of community resilience and messages of support for the rest of Aotearoa New Zealand.*

Community connectedness

Recovery is about making sure our families have food and clothing and rooves, that the kids feel supported, and the old people have everything they need for cleaning up and fixing their places. We are lucky that our small community really cares about each other. — Ruby

Community resilience

That we don't forget, and start building resilience into our communities. — Roger

Community self-reliance

I hope we have the ability to be completely selfsustainable and resilient going forward. — Manawaroa

Caring for 'vulnerable' people

We want to make ourselves more resilient by being more aware of needs within our community. We have realised that cellphones/landlines cannot be depended on. We are making a register of vulnerable people. We have learnt that we can effectively become an 'island'. — Eileen

Self-care

I hope that people get a chance to reflect and take care of themselves. — Stacey

Better household preparation

People to be better prepared in emergency planning. Households knowing to prepare a 'get ready' plan. — Craig

Marae preparedness

We are preparing our marae to be fully selfsufficient in an emergency. — John

Flood resilience

Would love to see our flood resilience improved. Higher and better stop banks. Increase of work on ditches, drains, stormwater. — Bee

Housing security

That everyone has power and has a safe, secure, healthy home to live in. — 'Ex-Hawke Bay, Gissy, and Wairoa Girl'

Increased resilience for critical utilities

We should be making the infrastructure much more resilient and able to withstand these events. Undergrounding power and communications lines and strengthening the roads should be a priority. Gabrielle demonstrated the extent to which we rely on the internet for SO much. — Scott

Improving roads

We hope to see major upgrades to Northland roads as these problems will keep occurring if the solutions are not well planned and future proof.

— 'Bream Bay resident'

Community halls and evacuation centres

Get the community hall equipped with things like a generator to help the community. Have future cyclone material all on hand — candles, generator, fuel, gas, and so on. — Fiona

Local plans and Community Response Groups

We will rebuild a new Civil Defence group and engage with newer community members to hopefully revive and reinvigorate the team as an opportunity to bring people together. Recovery for us will mean recognising that we need to be better prepared, as our peninsula is one of the at-risk locations in the district. — Jane

Making houses cyclone-proof

We as a community are now looking at cycloneproofing our homes to increase our ability to stay safe in the event of another devastating disaster. — Maurice

Support for solar energy

Possible advancement of solar energy in Tai Tokerau so less reliant on power lines. — Leanne

Rural recovery

Recovery for our farming community is to help our farmers connect more regularly, to not work in isolation. — Rachelle

Support for businesses

Businesses back up and running. — Penny

Shared community assets

I am raising money for a community tractor — I hope we reach the target to buy one. — Taane

Improved communications infrastructure

Recovery could be a more reliable internet service, i.e. the cell tower needs a backup that lasts longer than 6—8 hours. — Anonymous

We need better cell phone coverage, which we didn't have for 10 days. How could those that needed help dial 111 if there was no coverage?

— Trisha

Greater use of radio

Most important — Civil Defence or government working on an emergency radio broadcast network. Being cut off from all news and info was the worst. I had a wind-up radio and couldn't find any news on it. Have a go-to radio channel reserved for these situations and make the frequency known in advance. Give rolling updates that cover everywhere. — Jenna

Dealing with trees near roads and powerlines

I hope our infrastructure is not only repaired but then 'future proofing' is thought about — for example, so much of the power outage was caused by exotic trees falling on power lines. Should we be proactively chopping down these trees that still stand to below power line level? — 'Anon'

Improving forestry management

A lot of these trees and slash are known about. North Hokianga is another Hawke's Bay ticking; it's happened before. Unless slash is dealt with, some communities will be wiped out. — Ngahau

Environmental recovery

The beaches clean of debris and the sea not full of large trees. — Maree

Increasing food security

Assess food security options moving forward due to supply chain issues with roads down between Auckland and Whangārei. Grow more local?

— Leanne

More use of railways

The railway network which does exist needs to be utilised to take the pressure off roads and ensure goods can be transported to the north. — Gabi

Improved planning

Longer vision on sustainable resilience, such as utilising ecosystem services for buffering extreme flows (flood and draught) — for example, by restoring more wetlands and flood plains. — Hemi

Preparing for climate change

A greater acceptance of climate change as a reality and the consequences in terms of extreme weather events would be nice. Climate resilience should be built into infrastructure. — Tom

Community Recovery in action E mahi tonu ana te whakaoranga hapori

Community is what gets a community through a disaster. — Bee

This section includes just some examples of Recovery work already being done by communities across Te Tai Tokerau. More examples of these community actions are included in the companion booklet to this Plan, which documents testimonies of community resilience. We have included here examples that relate to actions community members have taken to support Recovery during the cyclone, as well as for building future resilience.

The community are keen to have a meeting and gather momentum around supporting the Community Response Plan. — Karen

I was grateful for neighbours keeping in touch. As soon as the storm had eased enough for it to be safe to leave home, a neighbour came and looked after my kids so that I could check our property and animals while knowing my kids were safe and dry inside. Local contractors offered services to our community (e.g. roofing repairs, arborists) and neighbours were quick to offer help. — Anonymous

We are preparing our marae to be fully selfsufficient in an emergency. — John

We want to make ourselves more resilient by being more aware of needs within our community. We have realised that cellphones/ landlines cannot be depended on. We are making a register of vulnerable people. We have learnt that we can effectively become an 'island'. — Eileen

Many people now have Starlink as a result of the storm. — Leona

Recovery will differ, but will look like continued wellbeing support, checking in, clearing of trees, support with insurance claims, support with whānau who do not have insurance, providing mobile cabins as temporary accommodation, mara kai gardens. — Jackie

Our Lions group will complete our Information Pack with a Civil Defence update in it, so all households know where to go. There is more unity in the area. — Beverley

Posts on our community Facebook page coordinating help were good — people could ask for and offer help. We now have a community directory pinned to the top of the page for people who can help (e.g. those with heavy machinery, tools, tractors, chainsaws, and expertise to help with fallen trees, etc.). — Anonymous



I run a chemist. We had some Uninterruptible Power Supply units and have now ordered a generator that's also an inverter. Chemists' prescriptions are emailed now, so we need to make sure we have cyclone emergency supplies like this. — Viv

What's helping us get through this is the constant staying in touch and checking in. Being a member of our community no longer ends at the front gate; we have all been to each others' houses to secure things and to share knowledge and plans for the future. — Maurice

Recovery Programme Groups Ngā Pou Whakaoranga

Based on community feedback, Northland CDEM have set the following four priority Recovery Programmes, or Pou Whakaoranga, for regional recovery. These were based on an assessment of the consequences/impacts on communities during the cyclone itself, as well as initial community feedback:

- Community Wellbeing
- Critical Infrastructure
- Rural Support
- Marae Preparedness.

Each of these four pou is coordinated by a Recovery Programme Group. While specific work on these pou may be taken up by the District Councils, Northland CDEM will coordinate the relevant work for each across Northland, as these issues are region-wide.

We have decided to call these 'programmes', rather than 'projects', to acknowledge that work will continue in each of these areas after the formal winding down of this Recovery, with this work being taken up as 'enhanced business as usual' by the relevant service providers.

A note on Recovery 'environments'

New Zealand's current emergency management framework refers to four Recovery 'environments': social, economic, natural, and built. The Recovery Preparedness and Management Director's Guideline for Civil Defence Emergency Management Groups [DGL 24/20] states that consequences 'must be considered across all recovery environments' and that Recovery environments 'may' be used for organising Recovery Management. However, this model is currently under debate, with some Recovery practitioners suggesting other environments, while some have explored seven 'Recovery Capitals'.

Following the guidance that consequences 'must be considered', the District Councils have included relevant Recovery environments in their action lists that occur later in this Plan. The rural sector has also used them to group their actions. However, overall, Northland CDEM is not adopting either the Recovery environments or Recovery Capitals as a planning or operational tool in this Recovery Plan, for a range of considered reasons:

- We consider the Recovery environments at best a heuristic, or simplistic thinking tool, but not a useful planning or operational tool.
- While initially intended to ensure that CDEM professionals do not forget important consequences of emergencies, and possibly the interdependencies between 'environments', in practice, we've seen how separating out Recovery thinking, planning, and operations along these lines can actually increase things 'falling through the gaps'.
- We also see limitations in reducing complex social, cultural, and natural worlds to 'capitals'.
- Finally, k\u00f6rero and w\u00e4nanga with tangata whenua has had us seeing the hazards and limitations of attempting separate the world into categories in this way (even if they're considered to be interdependent).



Community Wellbeing He Oranga Hapori Whānui

People haven't had time to ease back into life after a traumatic event, so are tired. Getting rid of damaged items has been stressful for people. — Stacey

We all just stayed in our houses. I was quite fearful and had anxiety about going outside. — 'B'

Mangawhai became an island for a number of days. Both events meant trauma for us and some time required to recover. — Tracey

The Community Wellbeing pou was initially based on the outstanding welfare needs of Northlanders in the immediate aftermath of the cyclone. Over the following weeks, we identified the need to both respond to longer-term community health and wellbeing issues, as well as some community work to create a wider sense of community experience — and action. This led to Community Wellbeing as the first Recovery Programme.

In Northland, this work is coordinated through the CDEM Welfare Coordination Group, which includes 97 people who work for Māori health and social support services, community groups, social service organisations, and government agencies across Te Tai Tokerau.

During this Recovery, self-selected members of the Welfare Coordination Group are meeting regularly as the Community Wellbeing Recovery Programme Group. Most agencies will contribute to the Recovery as part of their usual work. Direct mental health support will be provided coordinated by Te Whatu Ora, as below.

Along with coordinating the Community Wellbeing Recovery Programme Group, Northland CDEM's main Community Wellbeing work is the community engagement/whakawhiti kōrero project:

- Many respondents reported that completing the survey — reflecting on not only what had happened to them, but steps they and their communities had taken to get through — was in itself healing.
- The collection of stories, hopes, and messages for the rest of Aotearoa will be published as 'testimonies of community resilience' (as a companion document to this Plan). We expect that reading these accounts of their own experience, and those of others across Te Tai Tokerau, will further contribute to a sense of both what people have lived through, as well as how they have supported each other, in a more collective way.
- Finally, for the messages to the rest of Aotearoa, we will circulate this around the country, and then try to collect responses from other areas. We expect that hearing what our words have meant to others could be quite profound.

Te Whatu Ora

Te Whatu Ora are coordinating community health and wellbeing support at individual and whānau levels through the following services:

- The All Sorts campaign, developed by the Mental Health Foundation of New Zealand: www.allsorts.org.nz
- The 1737 phone service is available for anyone who needs to talk this is staffed 24/7 by counsellors: www.1737.org.nz
- Whakarongorau (Healthline) support is available 24/7 if someone has health symptoms and doesn't know what to do: 0800 611 116
- Health Improvement Practitioners are attached to most if not all GP practices (people need to be registered with that practice) in Te Tai Tokerau, via the Te Tumu Waiora programme: www.tetumuwaiora.co.nz
- The Te Whatu Ora website also contains information about flooding and public health, as well as the health services database Hauora Kotahitanga: www.northlanddhb.org.nz
- The free Access and Choice support service available at www.wellbeingsupport.health.nz

Critical Infrastructure He Hanganga Matua

Access roads to both Dargaville and Waimamaku were cut off from flooding, slips, and fallen trees. Power and phone lines including the cellular network were also cut off making some of the 10 northern communities in the district a black zone. — Virginia

State Highways are in need of major money spent to get them in better condition. The Brynderwyns being closed, and detour roads also closed for a day, show how vulnerable we are in the North. — Dee

We had no power for a week and no internet or cell cover for almost two weeks. Although we prepared as best we could with water supplies and had a gas cook top, it was difficult personally as I have a dependant 82-year-old husband. The loss of contact with no internet, cell cover, or landline meant we were quite isolated as we live in a rural community. It meant that if I had an emergency with my husband, there was no way for me to make contact with services. — Nolene

Northland's critical infrastructure of roading, electricity, rail, and communications were significantly impacted during Cyclone Gabrielle. While most were reinstated within the first few weeks of Recovery, some work remains.

This section covers some of the main impacts to critical infrastructure, before providing a list of commitments by infrastructure providers to Northland about work they will do to increase resilience from major weather events in future.

Roading

During Cyclone Gabrielle, Waka Kotahi reported that State Highways were closed in nine places — the highest on record. Similarly, Northland Transport Alliance (NTA) reported 450 total District Councilmaintained roads were impacted — again, the highest on record.

As of the date of this Plan, Waka Kotahi now has only one wholly closed section of State Highway, at Mangamuka Gorge, which was affected in the August 2022 rain event. Only seven District Council-maintained roads remained closed, and 57 are impacted — either down to single lane, 4WD only, or passable with caution. These outcomes reflect a massive amount of work by Waka Kotahi and NTA over the last two months, often in very challenging conditions.

Region	Individual roads closed	Individual roads impacted (minus closures)	Total roads impacted
Whangārei	68	99	167
Kaipara	Kaipara 60		104
Far North	55	124	179
Northland	183	267	450



Power

Impacts to Northland's power network were significant, with more than 64 000 customers affected during the event.

Impacts to Northpower's infrastructure included:

- Approximately 60% of the total network was affected, which is 5200 km long — so about 3000 km of line had had to be patrolled to find the damage and make repairs.
- Of 95 feeders (high voltage lines), around 70 suffered damage (often in multiple places).
- Approximately five sub-transmission lines (33 kV) were impacted with damage.
- Individual sites of damage to low voltage lines were estimated to be more than 1000.
- At least 400 lines were down during the event.

Impacts to Top Energy's infrastructure included three substations fed by 33 kV were non-functioning, two other 33 kV circuits were affected, and more than 60 of 69 11kV feeders were affected at some point.

All power connections have been restored. Similar to the roads providers, this reflects a huge amount of work, often in dangerous conditions.

However, there are still two active slips close to transmission towers — one affecting a Northpower line in Whangārei (which occurred in late 2022), and the other affecting two Transpower towers near Wellsford that provide the electricity supply for Northland. While the risk at these sites is currently being mitigated, Northland CDEM will meet with both Northpower and Transpower to discuss longer-term resiliency planning for these lines.



Communications

During the event, approximately 40 000 Spark customers did not have mobile/cell phone coverage, and 29 100 were without fibre connections. All of these connections have now been restored.

Future resilience

Need to lobby those organisations who provide services like Top Energy, Vodaphone, etc. and ask them what they are going to do better next time. People lost food in freezers, couldn't contact doctors, or communicate with support services. — Leona

I want to see long-term investment in infrastructure — especially by companies who make profits in NZ; they should be investing into resilient infrastructure. I hope and dream that our roads will be built back better — and I hope that there are better systems put in place for emergency situations — particularly around communications so that we can find out if people are okay. — 'BMcD'

Redundancy in lifeline services that are essential. Communication and transportation are the highest in my opinion as they are the enablers for Police and FENZ and the other lifelines. Our infrastructure needs significant investment so critical systems are built back with resilience and additional capability which will also fuel economic growth. — Anonymous

Feedback from the community survey was clear: people often said that power, roads, and telecommunications were the issues that affected them most, and what they were most thankful were restored. But people also wanted to know how critical infrastructure would be made more resilient, to reduce the chance of failures in the future, and the duration of outages.

We put this wero to the Northland Lifelines Group, which coordinates critical infrastructure for Te Tai Tokerau, and asked them to provide at least one practical, achievable, and meaningful thing they would do to improve their systems in the short, medium, and long term. The result is the following list of 'critical infrastructure commitments'.

Given each Lifelines provider's responsibilities under the CDEM Act to 'ensure that it is able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency', we look forward to working with them to achieve these actions.

Critical infrastructure commitments

Provider	Short term	Medium term	Long term
Chorus	Work closely with NZ Police to increase protection of network assets from theft and vandalism.	Explore installing a permanent generator at an additional critical site, to prevent loss of 111 service in future events.	Identify network nodes that were previously not in flood risk areas but may be threatened in future events, and move them to higher ground.
Northland Transportation Alliance	Complete funded 'initial response' activities, plus low-risk slip repairs (not requiring geotechnical investigation). Commence geotechnical investigation and detailed design for larger, higher-risk slip repairs, and submit implementation funding request to Waka Kotahi for approval.	Prioritise and commence retaining wall construction across larger, higher-risk slip sites (subject to funding approvals/resourcing).	Continue and complete work across larger, higher-risk slip sites, and return to business as usual.
North Power	Negotiate with several large forestry owners to remove high risk trees within fall zone areas. Contribute to Tree Regulation consultation to more effectively manage tree risk.	Strengthen the resilience of our core communications sites. Continue a risk-based approach to vegetation management, negotiating with tree owners where risk has been identified.	Complete geotechnical studies to understand land stability risks and identify particular areas prone to land movement where critical electricity infrastructure is in place. Use land stability data for planning suitable placement of new network infrastructure.
Northpower Fibre	Train more staff on CIMS so we have more trained staff available in emergencies.	Build more diversity into our network for our communities that have a single cable feed.	As batteries require replacing, we will upgrade them to ones that have greater capacity.
Top Energy	Make submission to MBIE's review of the Electricity (Hazards from trees) Regulations 2003 (given that most power outages during Cyclone Gabrielle were from trees down on powerlines, not from network infrastructure issues).	Review our vegetation management strategy, to better identify, and remove, vegetation risk to powerlines. Explore implementing an Outage Management System (OMS) to be integrated into our existing Advanced Distribution Management System (ADMS). This will increase network resiliency and decrease the length of future outages.	Design and build interconnections between existing 11kV network distribution, where viable, to allow back feeding of areas that are affected by faults or line damage (outlined in our Asset Management Plan). Overall, our Asset Management Plan covers Top Energy's goals for de-carbonisation, reduction of greenhouse gas emissions, and climate change resilience. It includes climate change risk as a design factor in new network construction, site selection, and exposure of existing assets during maintenance and upgrade work.

Provider	Short term	Medium term	Long term
Transpower	Relocate two lines onto new routes to remove risk created by towers located on a large slip plane (temporary solution for the 220kV line is already complete). Complete additional fall distance tree felling where cyclone has highlighted at-risk locations.	Conduct programme of geotechnical site investigations for Transmission towers across Northland that have been identified to have some level of risk.	Take action to implement all mitigations identified by investigation to ensure stability and improve security of identified sites.

One NZ, Spark, 2degrees

One NZ (previously Vodafone), Spark, and 2degrees and other providers in the Telecommunications Emergency Forum are working together and looking at future resilience options for key sites, in particular power and backhaul options. Northland CDEM looks forward to hearing more from the telecommunications providers about their plans to increase network resilience.

KiwiRail

KiwiRail experienced significant damage to its rail line connecting Northland. They are currently undergoing urgent repair work, as well as long-term resilience planning; Northland CDEM looks forward to working with KiwiRail in the coming months and years on increasing the rail line resilience.



Rural Support He Āwhina ki ngā Takiwā Taiwhenua

Raceways on dairy units washed away in some cases. Any repairs from the cyclone are an unexpected financial burden, and having diggers come in for extensive repairs adds to the cost. Not everybody is equipped with generators — not just domestically, but for farm reticulation and dairy sheds. — Colin

The immediate effect was a few very long days trying to protect our crops. Then catching up on farm work. Our wider community will do it hard as kūmara work is not going to be available; this could lead to more poverty. — Marty

The rural sector was especially hit hard by Cyclone Gabrielle, especially as many farms were still dealing with damage from the January Red Weather Warning event. Some impacts included:

- nearly 70% of the region's kūmara crop was destroyed
- at least 250 dairy farms were without power during the event
- at least 150 dairy farmers had to dump milk
- some stock animals were killed, usually due to exposure (rather than flooding)
- some fruit and vegetable crops were damaged, with extensive damage reported on some potato, avocado, and kiwi fruit farms.

The work under this Rural Support Recovery Programme will be coordinated by MPI and the Rural Support Trust, in partnership with the Northland Adverse Events Team (NAET) — a standing group of rural sector bodies and Civil Defence Emergency Management:

- MPI On Farm Support
- MPI Animal Welfare
- Rural Support Trust
- Federated Farmers
- Fonterra
- Horticulture NZ
- Beef & Lamb
- Dairy NZ
- Vegetables NZ
- Northland CDEM.

This section of the Regional Recovery Plan outlines some key responsibilities of some of these group members, followed by a detailed list of actions NAET will complete as part of the Recovery.



Rural Support Trust

The Northland Rural Support Trust (RST) is a charitable organisation which helps rural people and their families during and after extreme weather or events which affect livelihoods. This includes pastoral farming, forestry, horticulture, and other land-based activities.

As part of the Recovery from Cyclone Gabrielle, RST are:

- triaging requests from more than 200 farmers, helping with on-ground clean-up via Enhanced Task Force Green, and financial and psychosocial support
- hosting local dinners and events for affected rural communities — so far, RST have helped run 12 events, with at least another 10 planned across May, July, and August, including Whatever with Wiggy bringing Agri Connect, 'Lean on a Gate, Talk to a Mate', and the Health Check Medical Van
- delivering care packages to farms 160 have been delivered so far, and another 40 are to go out soon
- working closely with affected kūmara growers in Dargaville to provide them with opportunities to connect and gather information to help with their recovery.

Ministry for Primary Industries

The work that MPI will directly coordinate includes:

- Working with the Rural Support Trust to ensure that psychosocial and financial support reaches isolated and affected farmers.
- Administering the Farmer Grower Recovery grant.
- Ensuring long-term needs for animals (both rural and urban) are recognised and prioritised as well as ensuring immediate needs are addressed. This includes ensuring animal health is maintained in impacted areas, such as by ensuring that feed can be accessed.
- Supporting planning for silt and slash management with territorial authorities, Northland CDEM Group, Ministry for the Environment, and the Scientific Technical Advisory Committee. This includes identifying, testing, handling, removing, and storing contaminated and non-contaminated soil/silt.

Enhanced Task Force Green

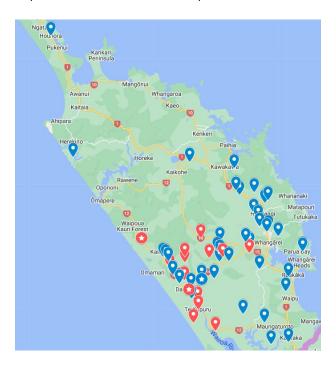
MSD has contracted Te Roroa Commercial Development to deliver Enhanced Task Force Green (ETFG), initially from 6 March to 26 May. Additional funding is likely to extend the project until 16 June 2023. This project involves 10 workers, two supervisors, and an overseer providing support to farmers, growers, and other producers across Te Tai Tokerau with clean-up after Cyclone Gabrielle.

The project is supported by a working group made up of primary sector groups, local authorities, MSD, and Te Roroa Commercial Development. The working group ensures coordination and prioritising of work.

The Recovery mahi available under ETFG includes clean-up activities such as removing debris from fence lines and clearing paddocks, decided in consultation with the farmers. So far, 80% of this has been chainsaw work, often cutting up large trees that have fallen in paddocks and sometimes affecting fencing or rivers.

Each farm that is supported by ETFG will also have a Rural Support Trust facilitator work with them, to help with any broader impacts from the cyclone.

The following map shows 70 farms who have so far requested assistance as of mid-April 2023:



Federated Farmers

Federated Farmers have activated the Farmy Army, who will also provide on-farm support to affected farmers in Northland.

Key primary industries Recovery issues and opportunities

The Northland Adverse Events Team (NAET, which includes rural peak bodies, the Rural Support Trust, Ministry for Primary Industries, and Northland CDEM) has identified the following opportunities and actions:

Recovery environment	Issues	Opportunity/actions
Social	Psychosocial wellbeing Mental health and wellbeing of farmers and growers was suboptimal in 2022 before these weather events hit.	 Promote Rural Support Trust support services including one-on-one psychosocial support, and linking to specialist support for employment, financial, environmental, and mental health pressures (RST, NAET). Enable industry networks and channels to provide support information (NAET). Support community connection events such as extension events, speaking events, and collaboration dinners (RST, NAET). Support farmers/growers to access professional mental health services when needed (RST, NAET).
	Growing community resilience to adverse events The three weather events in Jan/Feb 2023 placed a strain on many communities who became temporarily isolated due to roading, power, and telecommunications outages. It highlighted the readiness state of some rural communities to be resilient to, and respond to, natural disasters.	 Develop GIS map of catchment groups, marae, and others (MPI and CDEM). Continue to support Community Response Groups in rural communities (MPI, CDEM, RST). Work with rural communities to develop their own adverse event resilience plans based on recent weather events (RST). Support any new Community-Led Centres as determined by rural communities (CDEM and NAET). Link in with, and advocate for, rural marae readiness projects where it will increase the resilience of rural communities (NAET). Explore the idea of creating a database of key contacts across each rural community in Northland along with a map of their locations that can be shared with key agencies. These key contacts could provide an initial situation overview early on in natural hazard events to help locate communities most in need and affected by critical infrastructure outages (land slips damaging roads, electricity, potable water, and telecommunications outages) (NAET).
	Rural health care The roading, power, and telecommunications disruptions of the weather events made it more difficult for isolated health consumers to meet their needs.	 Connect Te Whatu Ora Locality planning pilots into rural networks to make sure they are aware of all ongoing rural health needs and ask about investment they can make into rural mental health resilience long-term (MPI, Te Whatu Ora). Encourage Te Whatu Ora investment in resilience measures including remote health appointments (MPI). Develop an understanding of the current availability of primary health care across rural parts the region, how resilient it was to Cyclone Gabrielle, and what actions Te Whatu Ora are intending to undertake to improve resilience to natural hazards (MPI, Te Whatu Ora).

Economic

Feed supply

- Lack of megajoules of energy in silage (due to poor quality) may lead to a reduction in winter milk supply from Northland.
- 2. Half of Northland's dairy farms are winter supply milk.
- Penalties normally apply if milk solids supplied aren't high enough.
- Autumn calving has already started, and winter milking starts in May.
- Low quantity of feed supply heading into winter as well (quantity as well as quality).

- 1. Monitor feed availability and quality through the National Feed Survey and other sources (MPI).
- 2. Promote use of the National Feed Coordination Service (Federated Farmers, NAET).
- Identify and understand the consequences of poor
 pasture quality on winter milk supply in Northland,
 contractual requirements, mitigation options, and
 force majeure clauses that provide agility in the
 system (Dairy NZ, FF, Fonterra, MPI). Fonterra notes
 the contract has a reasonable amount of lenience
 within it please refer on any people who are
 concerned.
- Support the development of resilient pasture management techniques and extension activities (MPI, RST).
- 5. Respond to to any animal welfare issues (MPI).

Financial support

The weather events have affected the income of farmers and growers, with some sectors more seriously affected than others. Promote the availability of the following financial support measures (MPI, MSD, RST, IRD):

- MPI Cyclone recovery funds (now closed)
- Inland Revenue (tax flexibility provisions and working for families)
- Ministry of Social Development (Rural Assistance Payments — if need to activate)
- · Rural Support Trust Business Advice Fund
- · MPI Farm Debt Mediation scheme
- Northland Inc (MBIE funding).

Economic impact information

Gathering information about ongoing economic impacts of the weather events is important to ensure government can target any support or coordination needed.

- 1. Support/connect with work done in the horticulture sector, MPI (Wellington), and Northland Inc. to understand the ongoing financial impacts of the weather events on the horticulture sector (NAET, MPI).
- Connect with work done by levy groups, MPI, and other organisations to understand the ongoing financial impacts experienced by the agriculture sector (NAET, MPI).
- 3. Supply information about financial impacts to government decision-makers (MPI).

Kūmara cropping

The sector as a whole is facing 66.5% crop loss, with 7 out of 45 farms facing 100% loss. A proportion of crop is typically stored as seed for the next season, so these growers are either faced with no income this season and using crop as seed for next season or selling what they currently have for a vastly reduced income and having no seed for next year. 50% of growers have indicated they do not have crop of sufficient quality to be retained as seed (due to rot, etc.).

- Coordinate available support and advice within the industry (MPI, including Investment Programmes, Ministry for Social Development, and the Inland Revenue Department).
- Help evaluate potential restorative options both shorter and longer-term resilience solutions. For example, fund seed kūmara, scope the feasibility of using tissue culture as in the potato industry, consider using this as an opportunity to promote future resilience by importing new varietals into Post Entry Quarantine (MPI, MBIE).
- 3. Follow up on current funding bids to see if they are still required or are obsolete (MPI).
- Investigate options for supporting workforce shortage issues (MSD, MPI).

Business continuity planning

. Work with farmers to improve their business continuity planning (NAET).

Natural Riparian planting and Investigate and work with experts on climate resilient fencing damage riparian planting/fencing reinstatement options (including Kaipara Moana Remediation work) to replace damaged existing planting and fencing. 2. Fund and implement Enhanced Task Force Green (MSD). Support the implementation of Enhanced Task Force Green through identifying and referring families needing support 4. Remove fallen trees from riverbeds and drains to mitigate future flooding (NRC). **Erosion and slips** Slip management: Work with Te Uru Rakau — New Zealand Forest Service and Northland Regional Council on extending GNS estimate that there are best practice for stabilising slips on farms/forest blocks 750 000 hectares of active (MPI On Farm Support, RST). slips across the North Island as a result of the three 2. Find out more about slip extent information for the weather events (this is being Northland region (NRC). properly 'ground-truthed'/ checked soon). Flood-prone land — future Receive, consider, and share with landowners any new flood and wind data and modelling for Northland being done by local and central government agencies (NRC, MPI, NAET). With ongoing severe Explore how any new information available might be shared weather events due to climate change, with farmers and growers at an individual land block level consideration at an so they can make informed decisions about how best to individual landowner level adapt their land management methods to be more resilient to future weather events (MPI On Farm Support, levy bodies, may be needed about the most resilient use of some land. Understand plans for stop bank management along Wairoa River (NAET). **Built** Physical damage to farms 1. Implement and promote the Enhanced Task Force Green programme (MSD, RST). Damage to fencing, trees, Find uses for downed trees — clearing up trees and culverts, tracks, dead stock. supporting community projects to make use of any firewood (CDEM, Te Roroa Commercial Development). Promote horticulturalists and farmers establishing better shelter belts as they are still vulnerable. Right sort in the right place again (including setbacks within tree fall zone from powerlines) that will be able to withstand climate change weather patterns (MPI, NAET sector groups). Roading infrastructure Enable a rural lens over planning for roading repair and resilience building (MPI and NAET). This includes: Large portions of local and state highway roading state highways networks were affected by local roads slips over Jan/Feb with on-farm networks including bridges and culverts many years of expensive forestry blocks' internal roading (water storage and and time-consuming repairs windthrow issues for firefighting, etc.). awaiting the region. Electricity infrastructure/ Develop factsheets advising farmers on continuity planning power outages for power outages (MPI). Over 2500 ICPs experienced 2. Ensure farmers understand their responsibilities in relation power outages for a week to farm-side power infrastructure (CDEM, NAET). or more in Northland. Peak was 46 000 ICPs without power at one time. Across the event, 64 000 total ICPS were without power at some point.

Marae Preparedness He Mahi Whakarite Marae

My hopes and dreams for our community is to form a Civil Defence squad who can act fast in these times to awhi our whānau instantly. Overall, I would really like to see our marae have an action plan for State of Emergency times. How that may look is that once an alert has been raised there are plans in place for the marae to open for those who may need to evacuate or, in most cases, not have access to a generator, hot water, flushing toilets, and cooking facilities. — Lizzie

During Cyclone Gabrielle, at least 15 marae and 69 other Community-Led Centres (often set up by local hapū and iwi) across Te Tai Tokerau opened to assist people — whether with accommodation, food, clothing, access to electricity, or just local manaakitanga and āwhina.

While 'communities supporting communities' is built into Aotearoa New Zealand's model of civil defence - and other marae likely opened that we did not hear about - it's important to acknowledge the key role that marae play in emergency events, and have done for hundreds of years.

During Cyclone Gabrielle, some marae themselves were cut off due to road issues, lost power (affecting their ability to provide hot showers and meals), or lost communications. Ensuring marae are more prepared for future events is one the four priorities for this Recovery.

Supporting marae preparedness has been a key part of the work of Northland CDEM. Prior to this event, the CDEM team worked with communities on Marae Preparedness Plans. These sit alongside Community Response Groups' (CRGs') Community Response Plans — and Te Tai Tokerau has one of the highest rates of CRGs in New Zealand.

Some marae and Māori communities have organised hui to review their responses to Cyclone Gabrielle. Some of these hui have included ideas for the current Recovery, as well as future Readiness for events, and longer-term resilience. Hui have been attended by Northland CDEM staff and/or members of the Recovery Team's Māori Support Service.



Following Cyclone Gabrielle, Northland CDEM will include the following mahi as part of the Marae Preparedness Recovery Programme:

- continuing to support tangata whenua develop Marae Preparedness Plans
- providing technical advice to a combined recovery/climate change project initiated by Northland Regional Ministerial Lead for Cyclone Recovery
- providing advice to marae when requested on both resilience for their marae and communities, as well as equipment they may need to operate as CLCs during future events
- delivering readiness wānanga for marae and local communities as requested (this has already been requested in the Kaipara and North Hokianga)
- present on marae preparedness to governance groups such as Te Tai Tokerau Māori and Council at Northland Regional Council and Te Kārearea at Whangārei District Council.

(More on Northland CDEM's work with tangata whenua can be found in the *Northland Civil Defence Emergency Management Group Plan*, 2021—2026.)

The NRC Climate Action team will also partner in this mahi. Tangata whenua-led climate adaptation is a critical issue for iwi, hapū, and whānau in Te Tai Tokerau. This is reflected in the strategic direction

of two climate change strategies and the Council's Long Term Plan:

- the Water Resilience Fund (\$500 000 per year, set up to ensure drinking water availability in vulnerable communities)
- a new Tāngata Whenua Climate Adaptation Fund (\$100 000 per year for adaptation planning and flax-roots, hapori-led, climate resilience initiatives).

Funding

The Guide to the National Civil Defence Emergency Plan 2015 (section 33) outlines welfare costs that can be reimbursed, including food, accommodation, and clothing for people directly impacted by emergencies. CDEM funding is not available for things such as generators, communications, Starlink, or running costs.

However, central Government has made other funding for costs of Cyclone Gabrielle and future marae preparedness available through Te Puni Kōkiri, Waipuna aa Rangi, Te Kahu o Taonui, NEMA, and other sources. Some funding has also been provided by the District Council's Mayoral Relief Funds and the New Zealand Red Cross's New Zealand Disaster Fund.



Economic impact and support Ngā pānga ohaoha, he mahi āwhina

We lost income at our shop and holiday park. Roading access impacts delivery of goods to local business centres, business trading, and access by customers. Businesses are losing custom; that has a flow-on economic effect to the community. — Barry

The Mangawhai Museum suffered minor damage from the cyclone. We were also forced to close for a day as staff and volunteers could not get into town to open. Many of Mangawhai's tourist draws were affected, including the surf club, restaurants, and roads leading into town. This of course affects the museum and its community economically. — Tom

The following information was provided by Northland Inc, Te Tai Tokerau Northland's Economic Development Agency, encompassing the Regional Tourism Organisation and central government's Regional Business Partner Network. Northland Inc are the delivery partner for the Cyclone Gabrielle Business Recovery Grants in Northland.

As of 14 April 2023, 923 grant applications have been received. Of these, 337 have been approved so far, with \$1 792 500 in funding provided. The fund is now closed for new applications as we anticipate the funds will be exhausted through the applications already received.

Based on the high levels of applications, we anticipate that the fund will be oversubscribed for Te Tai Tokerau, even with the additional tranche of funding announced on 15 March 2023.

Anecdotal feedback from businesses shows:

- Businesses across the entire region have been impacted by Cyclone Gabrielle and the subsequent weather events.
- Roading connectivity has had a dire impact on businesses, particularly impacting:
 - supply chains
 - flow of people, particularly visitors, which has impacted the tourism industry.
- Significant damage to agriculture industry, particularly through the Kaipara region where many crops were wiped out.

In addition, the perception that Te Tai Tokerau Northland was severely damaged/inaccessible following the cyclone and subsequent weather events has impacted the visitor industry. Anecdotal feedback from industry has included:

- immediate impact through booking cancellations directly following the cyclone
- confusion from visitors about how to access the region, and missing bookings as a result of roading issues
- forward booking cancellations due to the perception that Te Tai Tokerau has been severely damaged and is no longer desirable to visit.

Supporting Northland businesses

Northland Inc's Business Support webpage was stood up following Cyclone Gabrielle, detailing support services available to businesses. This has continued to be updated with relevant information as the situation evolved.

Central government's Cyclone Gabrielle Business Recovery Grants were announced on 26 February, with the Te Tai Tokerau fund opening on 7 March. Information and application processes were shared through the Northland Inc website, as well as through:

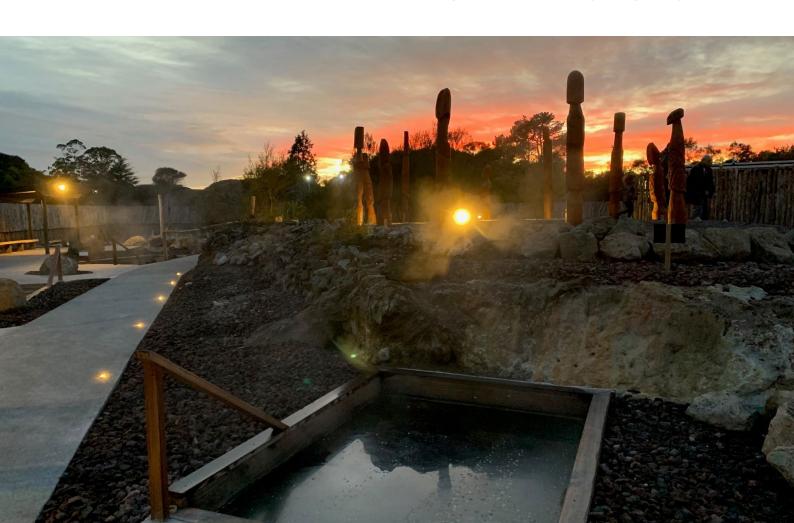
- Northland Inc databases, to regional businesses and visitor operators
- Northland Inc partner networks, including Te Hiringa, Whāriki, NorthChamber and Business Associations, and Councils
- Northland Inc social media channels (Facebook, LinkedIn, Tourism Industry Facebook Page)
- media release to regional publications.

The Northland Inc team reviewed each grant application with the business and discussed specific business needs, appropriate funding, and other support services if necessary.

To ensure Māori businesses were aware of the fund and supported through the application process, Northland Inc supported partner Whāriki in the launch of Te Kōtiri Pakihi — Rebuilding Business campaign, to empower pakihi Māori affected by Cyclone Gabrielle. A four-week haerenga across Te Tai Tokerau engaged with Māori businesses to ensure they had equitable access to support following the cyclone.

Advocacy on behalf of the region was undertaken through Chief Executive Paul Linton meeting with the Prime Minister, along with partner agencies, during his visit to Te Tai Tokerau following the cyclone, and a subsequent visit to Wellington to meet with senior officials and advocate for regional needs in early March. Paul Linton and General Manager Tania Burt also spoke to the impacts of the cyclone, the need for resilient infrastructure, and the region's recovery, through national media.

Without dedicated funds to support a marketing campaign to encourage visitors to Northland to aid visitor industry recovery, the message that 'Northland is open for business and welcoming visitors' was disseminated through media opportunities, updates to trade partners and national visitor industry bodies, social media, and the launch of an Frequently Asked Questions webpage for visitors considering visiting the region.



Northland Councils' recovery actions

Far North District Council, Kaipara District Council, and Whangārei District Council have all prepared their own Recovery Action Plans. The following section includes the actions lists from each of those plans. Each varies in length and detail, for a range of reasons, including the scale of the impact of the event in that area, and the capacity of the District Council at the time.

Northland Regional Council Te Kaunihera ā rohe o Te Taitokerau

In addition to housing the Northland CDEM Group, which coordinates the Recovery at a regional level, Northland Regional Council will undertake the following Recovery-related work:

- consenting: for example, communicating possible changes to the Resource Management Act for waste disposal
- environmental monitoring: of both impacts from the event, as well as providing intelligence for the current Recovery, as well as future Reduction work
- climate change adaptation: both providing advice to the current Recovery and incorporating lessons from this event into climate change adaptation funding and planning
- regional approach to flood risk management project: a wholistic approach to flood modelling, mitigation, adaptation, and emergency management

- Harbourmaster: working with owners of outstanding boats that were beached or broken up, to ensure appropriate clean-up and removal. Almost all are now cleaned up with just some difficult remnants remaining.
- Rivers Team: documenting impacts on rivers (including downed trees/flow impedance), reviewing and continuing river stop bank/flood prevention works.

Cyclone recovery funding for trees in rivers

During Cyclone Gabrielle, thousands of trees — or possibly tens of thousands — fell into rivers across Te Tai Tokerau.

Trees in rivers can cause blockages, flooding, risk to downstream bridges, and other impacts.

Usually, the owner of the land from which the tree came is responsible for dealing with it. However, the scale of the trees down — both the number, and their size — is beyond the ability of many landowners to complete the clean-up works on their own.

NRC has therefore allocated \$500 000 for removing trees from rivers. Priority will be given to situations where there is the highest risk of blockage and other impacts, such as risk to human life, increased flood risk, and damage to infrastructure (such as bridges, pipelines, electrical infrastructure, roads, and so on).

At the time of publication, more than 40 possible sites to work on have been identified.

Applications by affected landowners can be made online at: www.nrc.govt.nz/your-council/work-with-us/funding-and-awards/for-landowners/cyclone-recovery-funding-for-trees-in-rivers

For advice or more information, call NRC on 0800 002 004 and ask for the rivers management team.



Mayoral Relief Funds

The central government provided \$500 000 to Northland to establish Mayoral Relief Funds (sometimes called Disaster Relief Funds). This was distributed by Northland Regional Council among the three District Councils, who raised additional funds through local donations, and support from individuals, communities, and businesses across New Zealand.

The total received by the Mayoral Relief Funds at the date of this Plan is \$1 338 455:

- Far North District Council: \$478 000
- Kaipara District Council: \$504 996
- Whangārei District Council: \$355 459.

This is the most funding ever received (and made available) by each District Council for their Mayoral Relief Funds. It is also the most for the Northland region overall. Even so, the funds have been massively oversubscribed, which reflects the significant effects across Northland.

While criteria for the three District Council's funds vary, Mayoral Relief Funds are generally available to individuals, families, community organisations, marae, and small businesses who have suffered severe hardship or damage as a result of emergencies. These three funds closed in late March/early April, with payments being made to thousands of recipients.



Far North District Council Te Kaunihera o Tai Tokerau ki te Raki

Actions outstanding from Response phase

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Sense of overwhelm in rural communities especially as cumulative effects of power cuts and economic effects are felt	Communication of channels for support for rural communities Potential consideration of MPI designation of adverse event	Continue to work with relevant agencies to restore power and telecommunications	Top Energy MBIE MPI MSD	Social Built	Now complete
Concerns from extended power outages including hygiene needs, water, and cooking	Consideration of welfare outreach for affected properties	Appeal for generators Receive generators and deploy into community	FNDC Top Energy	Social Built	Now complete
Requests for potable water in a small number of areas	Water supply restored to pre- event standards	Use water tanks in short- term Maintenance on WTP	Far North Waters Alliance	Social Built	Now complete
Still receiving requests for food parcels despite most roads being open and shops well stocked with food supplies	Ensure MSD are first point of call for welfare issues	Communication of channels to request welfare support, i.e. transition to MSD	MSD FNDC	Social	Now complete

Actions outstanding from Response phase

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Marae and community buildings used as Community-Led Centres were affected by the cyclone	A plan of work to increase the resilience of these structures, i.e., alternative power supply and water tanks Consideration to the use of VHF or satellite for alternative communications	Appeal for generators Receive generators and deploy into community	FNDC St John	Social Built	Now complete
Crucial roads closed in the Far North	Resilience for major routes to main population centres in Far North	Contribute to lobbying Government for financial assistance	NZTA	Built Social Economic	Ongoing

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Welfare centres (CDCs and CLCs) had power and communications disruptions during event	Enhance power and comms capability	Manage large influx of donated generators Method of deploying generators (identify locations, deliver, register) Administer continued offers of help and match to needs Work with CDEM to develop welfare centre resilience	FNDC	Social	30 June 2023
People financially affected by cyclone	People's direct financial impacts covered (or at least reduced) by Mayoral Relief Fund	Create Mayoral Relief Fund (account, application forms, communicate) Establish working group & administrative process Form panel & set criteria Administer fund, assess applicants, make payments	FNDC	Social	31 May 2023

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Some individuals still have welfare needs caused by cyclone	Welfare needs met	Establish working group for welfare needs Complete gap analysis on Response welfare needs and current needs Respond and manage ongoing welfare needs	FNDC	Social	30 April 2023
Community have broader ongoing needs as a result of the cyclone	Broader community needs identified and resolved where possible	Set up mechanism for registering and managing offers of support Identify community needs (response data, email, etc) Establish working group for community liaison Manage process	FNDC	Social	31 May 2023
Cost to Council from Response and Recovery needs to be funded	Costs of Response and Recovery for covered with as minimal impact possible on FNDC residents	Collate Response costs and secure central Government reimbursement Identify Recovery costs and utilise external funding	FNDC	Social	30 June 2023
House damaged by cyclone and red-stickered, leading to residents being displaced	Property owner adequately housed and supported	Meet property owner and discuss needs Provide support as necessary	FNDC	Social Built	Now complete
Roads throughout the region significantly damaged	Safe access restored as quickly as possible for critical lifeline routes	Restore access where possible to reconnect isolated communities and critical lifeline links throughout the transport network Use temporary traffic management to manage access while reducing risk to road users Clear roadside debris and slips where safe to begin restoring level of service Begin damage assessments and investigations into medium and long-term solutions/interventions Quantify damages and submit emergency recover funding application to Waka Kotahi	NTA Waka Kotahi	Built Economic Social	30 June 2023

Key medium-term priorities

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Roads throughout the region significantly damaged	Restore level of service to before Cyclone Gabrielle event	Carry out detailed geotechnical investigation and design Continuation of road asset reinstatement/ rehabilitation	NTA Waka Kotahi	Built Economic Social	6—24 months

Key long-term priorities

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Damage to transport networks across the Far North District	Improvements made to roading network to mitigate impacts of future events	Complete asset and critical lifelines assessments and traffic modelling for future resilience and improvement activities Include modelling outcomes and potential projects into Asset Management Plan so external funding support can be sought for construction of new resilience improvement opportunities that are identified	NTA Waka Kotahi	Built Economic Social	Ongoing

Exit strategy

To facilitate the FNDC's exit from Recovery, the follow actions will occur:

- A 'lessons learned' workshop will be held with key stakeholders, improvements recorded, and owners assigned (responsibility for oversight is agreed at workshop).
- All Recovery artefacts will be archived from SharePoint/Outlook to Objective (Electronic Document and Records Management System).
- Any open items from workstream registers will be transferred to Pathway (Business Process Management system).
- Key stakeholders (including Mayor and CEO) will be notified that Recovery has come to an end with a summary of achievements.



Kaipara District Council Kaipara te Oranganui

Actions outstanding from Response phase

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Number of significantly damaged roads across the Kaipara District	Restoration of transportation links across the Kaipara district	Repair damage to KDC's Transport network caused by Cyclone Gabrielle and 24 Feb Mangawhai severe Thunderstorm event	NTA	Built Economic Social	Ongoing
Large-scale power outages across district	Restoration of power across the Kaipara district	Communicate networks down, assist remote areas that are still without power, access to generators and recovery of generators	KDC EOC Welfare, Logistics, Planning	Built Social Economic	Now complete
Displaced people are unable to return to their homes due to safety reasons	Ensure displaced people are in suitable short (emergency) to longer-term (temporary) accommodation	Finalise any outstanding building assessments Work with MBIE TAS for temporary accommodation options Provide wrap-around support	Welfare BCA Team MBIE TAS Te Whatu Ora	Social Built	Now complete
Public wanting to know about social and welfare support, as well as progress of Recovery	Public informed	PIMs to disseminate accurate information in a timely manner about social and welfare support and successful reinstatement of infrastructure crucial in returning communities to normality	PIMs	Social	Now complete

Actions outstanding from Response phase

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Significant damage to Mangawhai Heads SLSC due to Anniversary Weekend adverse weather event landslide behind the club room	Identify if land is suitable for the rehoming of the Mangawhai Heads SLSC in its current position	Work with geotechnical engineers to assess land slip	KDC	Economic Social Built	Ongoing
Significant amounts of green waste, household waste, and landslip material	Safe dumping of household waste, reduce contamination, reduce risk of infestation	Communicate ways to dispose of household waste, green waste, and landslip material; open refuse stations for free tipping	Refuse stations	Natural Economic	Now complete

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Material hardship for affected residents in the Kaipara District	People's direct financial impacts covered (or at least reduced) by Mayoral Relief Fund	Set up Mayoral Relief Fund, establish working group to oversee the fund, source funding, advertise fund, process claims, form panel of to assess claims, ET to signoff claims, make payments to affected residents	KDC	Economic Social	April 2023
Ongoing welfare needs of individuals affected by recent adverse weather events	Continue to provide welfare support to KDC residents affected by recent adverse weather events	Respond to and manage ongoing welfare needs of affected residents	KDC Welfare Other government agencies	Economic Social	April 2023
Some rural communities were not well- equipped to handle major adverse events	Support remote community groups to develop greater resilience to adverse weather events	Support rural communities with psychosocial support, loss of seasonal work, crops, and income	KDC Community Team MPI MSD	Social Economic	Ongoing

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Welfare centres were affected by the event	Enhanced power and comms capability for welfare centres/ Community-Led Centres	Manage donated generators Distribute generators (identify locations, deliver, register) Administer continued offers of help and match to needs Work with CDEM to develop welfare centre resilience	KDC Community Team	Social	April 2023
Marae, including those who opened as Community-Led Centres, were affected during event, reducing their ability to support communities	Marae across Kaipara District more prepared for future events	Consult with Kaipara District marae leaders to consider their recovery issues and priorities regarding their preparedness for future adverse events Promote civil defence preparedness, initiate ongoing discussions with marae leaders and NCDEM	KDC Iwi Relations Team	Social	Ongoing
Damage to local businesses' premises and inventory	Local businesses rebound	Support local businesses adversely affected by recent weather events through funding agencies available to assist with building damage and loss of inventory	KDC MBIE IRD relief	Built Economic Social	June 2023
Farmlands affected by flood waters	Farmers supported and more resilient for future events	Communicate with, and provide education to, affected landowners Facilitate discussions about future risk	MPI RST	Built Economic Social	June 2023
Roads throughout the region significantly damaged	Safe access restored as quickly as possible for critical lifeline routes	Restore access where possible to reconnect isolated communities and critical lifeline links throughout the transport network Use temporary traffic management to manage access while reducing risk to road users Clear roadside debris and slips where safe to begin restoring level of service Begin damage assessments and investigations into medium- and long-term solutions/interventions Quantify damages and submit emergency recover funding application to Waka Kotahi	NTA Waka Kotahi	Built Economic Social	30 June 2023

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Many fallen trees and debris on roadsides	Roadsides clear and safe	Clear roads, driveways, and fallen tree and debris damage to property	NTA Contractors	Built Economic Social	Ongoing
Damage to wastewater network	Reinstate KDC's wastewater network	Assess damage, make repairs, inspect network, report issues, restoration, timelines	KDC Contractors	Natural Economic	April 2023
Physical damage to water treatment plants	Physical damage is repaired	Assess damage, make repairs	KDC Contractors	Natural Economic	April 2023
KDC pump stations affected during cyclone	Pump stations that can maintain integrity during prolonged power disruptions due to adverse weather events	Assess network of pump stations, complete individual assessments, upgrade batteries, make improvements to Scada systems	KDC Contractors	Built Economic	June 2023
Embankments damaged	Improve land drainage in vulnerable areas to improve the resilience to adverse weather events	Assess damaged embankments and make necessary repairs	KDC Contractors	Natural Economic	June 2023
Damaged houses as a result of recent adverse weather events	Kaipara residents have safe homes	Continue to conduct any Rapid Building Assessments (RBAs) as and when KDC are notified by property owners who have been impacted by flooding and or ongoing land slips Provide guidance to	KDC Building and Compliance team Geotech engineers	Economic Social	June 2023
		affected property owners on steps to take with insurers, or access to support networks for uninsured properties Provide guidance related to building exemptions and or building consents for remedial work			

Key medium-term priorities

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Community want to know about planned works, funding, and progress	Informed community	Ongoing communications with current information on power outages, road closures, funding options	KDC Communi- cations and Community Teams	Social	June 2024
lwi affected by the weather events	Expectations being met	Continued engagement and support for lwi affected by the weather events	KDC Iwi relations	Social	June 2024
Roads throughout the region significantly damaged	Restore level of service to before Cyclone Gabrielle and 24 Feb weather events	Carry out detailed geotechnical investigation and design Continuation of road asset reinstatement/rehabilitation	NTA Waka Kotahi	Built Economic Social	6-24 months
Damage to wastewater network	Provide greater resilience to KDC's wastewater network for future adverse events	Assess damage, make repairs, inspect network, assess damage, report issues, complete restoration	KDC Contractors	Natural Economic	Ongoing
Strain on existing water treatment infrastructure as a result of recent adverse weather events	Ensure water treatment infrastructure matches demands of community	Plan and scope stormwater infrastructure	KDC Contractors	Built Economic	Ongoing
Embankments damaged, and new embankments may be needed	Improve land drainage in vulnerable areas to increase resilience to adverse weather events	Identify areas needing additional/reinforced embankments	KDC Contractors	Built Economic	Ongoing
Damage to stop banks	Improve stop- bank resilience for future adverse events	Assess effect of future weather events on remediation	KDC and NRC	Built Economic	Ongoing
Fallen trees	Affected home/ landowners are identified and connected with Enhanced Taskforce Green project	Remedial actions are undertaken, and land is cleared of fallen trees and debris	KDC Recovery Manager Rural Support Trust Enhanced Taskforce Green	Economic Social	June 2023

Key medium-term priorities

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Mangawhai Heads Surf Lifesaving Club may need to be relocated	Work with Mangawhai Heads SLSC to find new permanent location for club rooms	Work with Mangawhai Heads SLSC to find solutions to relocate the damaged building	KDC Contractors	Built Economic Social	Ongoing
Damaged properties as a result of recent adverse weather events	Ensure Kaipara residents can return to safe homes	Ongoing management of enquiries into building exemptions and or building consents for remedial work Process building consent applications and complete inspections through to issuing Code Compliance Certificates	KDC Building and Compliance team Geotechnical engineers	Built Economic Social	Ongoing
Land already affected by stability issues at risk of further slippage resulting in damage to buildings	Ensure land in use is fit for purpose and doesn't pose unforeseen hazards	Monitor unstable land and communicate risk profile to relevant stakeholders	KDC BCA team Geotech engineers	Natural Economic Social	Ongoing

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Affected individuals and communities have diverse needs, wants and expectations	Enable people to manage their own recovery through access to information and a range of services those individuals and households who are most vulnerable and do not have the means to finance their own recovery	Continue to proactively respond to the needs of the Kaipara residents as recovery efforts progress	KDC Local Welfare Manager KDC Community Liaison team MBIE	Economic Social	Ongoing

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Ongoing economic hardship for Kaipara residents impacted by the Jan- Feb adverse weather events	Support organisaitons working in the Kaipara District, strengthen community connections, enhance wellbeing, and build resilience	Community and business groups meet regularly to explore opportunities to support the community and reinvigorate the Kaipara District	Kaipara community and business groups KDC	Economic Social	Ongoing
Insufficient marae and community-led civil defence preparedness for future events	Kaipara District maraes and communities feel they are prepared and have adequate resources to manage future events	Continued engagement and support for community groups in developing their Community Response Plans and embedding their plans into practice	KDC Community team Northland CDEM	Economic Social	12–24 months+
Slowed or negative economic recovery or renewal	Facilitate local businesses, industry and reg ional economic recovery and renewal	Identify key recovery steps for the local economy, ensure eligible businesses are supported by MBIE funding	Northland Inc	Economic Social	12–24 months+
Negative impacts to the rural sector	Stimulating the renewal and growth of the rural sector with a return to full production	Rural sector is producing at the same level (or higher) as pre-Jan—Feb 2023 extreme weather events	Rural Support Trust MPI Federated Farmers	Economic Social	12–24 months+
Widespread outages to electricity and telecommunica- tion networks	Resilient tele- communication and electrical networks that are not suscep- tible to outages in future events	Continue to raise concerns with telecommunication and electrical network suppliers to Northland	Northland electrical network companies and telecom- munication companies	Built Economic Social	Ongoing
Damage to transport networks across the Kaipara District	Improvements made to roading network to mitigate impacts of future events	Complete asset and critical lifelines assessments and traffic modelling for future resilience and improvement activities Include modelling outcomes and potential projects into Asset Management Plan so external funding support can be sought for construction of new resilience improvement opportunities that are identified	NTA Waka Kotahi	Built Economic Social	Ongoing

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Damage from fallen trees within road corridor	Ensure trees planted in the road corridor are maintained and do not cause disruptions to the roading and electrical network in future events	Support programmes to maintain trees in road corridor	NTA KDC Community-led tree removal/ maintenance programmes	Built Economic	Ongoing
Stormwater inundation	Coordinate and undertake mitigation strategies to reduce future impacts on the natural environment where appropriate	Improve flood resilience of assets such as stop banks and embankments	KDC Infrastructure	Built Economic Social	12—24 months+
Reduced water network resilience due to Civil Defence emergency	Improve water supply and treatment resilience	Improvements made to three waters network to ensure network is compliant and resilient to future events	KDC 3 Waters Infrastructure	Built Economic Social	12—24 months+
Damage to public assets such as community parks and facilities	Coordinate preservation of community assets	Develop a long-term plan to repair and rebuild affected community facilities and infrastructure	KDC Community groups	Built Economic Social	Ongoing
Landslips	Continue to identify landslip restoration requirements using the most appropriate design and resilience options	Monitor unstable land and communicate risk profile to relevant stakeholders	KDC BCA team Geotech engineers	Natural Economic Social	Ongoing
Structures in low lying and flood prone areas are at potential risk in future flooding events.	Ensure risk reduction is considered in planning for rebuilding and reconstruction	Understand the impacts of events on the local environment, land remediated or retired	KDC	Natural Economic Social	Ongoing



Whangārei District Council Actions outstanding from Response phase

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Displaced residents	People provided with temporary accommodation	Identify who still requires support after emergency accommodation ends	WDC Welfare MBIE TAS WDC Building Department	Social	Completed 4 March 2023
Water treatment and supply disruptions	All water treatment plants operating — Whangārei Heads — water supply temporary overland	Restore all water treatment plants. One plant still out of action at Mangapai	WDC Infrastructure	Built	Completed 24 February 2023
Households still without power	Restore power to affected communities	Continue repairing power infrastructure	Northpower	Built	Transition to BAU
Storm damaged homes	Flood and slip damaged homes assessed to be habitable	Continue rapid building assessments (RBAs)	WDC building regulation	Built Social	Continue as needed, transition to BAU
Ongoing emergency welfare needs	Emergency welfare needs met.	Provide emergency welfare services and support	KDC	Economic Social Built	Ongoing
Agricultural sector still impacted	Understand needs of ag sectors (stock farming, dairy, horticulture, poultry, aquaculture)	Intelligence gathering affected by communication and access issues; floodwater yet to fully recede (Hikurangi swamp)	MPI RST NAET	Built Economic Natural	Transition to Recovery

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Roads closed	All roads open (albeit at lower LOS, single lane)	Road opening works prioritised and undertaken	NTA Waka Kotahi	Built Social Economic	24 March 2023
Ongoing emergency welfare needs	Emergency welfare needs met	Provide emergency welfare services and support Activate a Mayoral Relief Fund to support affected community	WDC Welfare WCG agencies WDC	Social	13 April 2023 Closes 6 April 2023, funds distributed throughout April
SH1 Brynderwyns slips, limited access and risk of further closures Detour routes on local roads damaged and not suitable for traffic volume and type Substantial additional transport and travel costs and social disconnection impacts Reduced road safety and increased carbon emissions	SH1 open Resilient and suitable detour routes available for planned and unplanned events	Raise with Ministers Weekly condition assessment and reporting Assess routes and provide cost estimate (IBC) for works including works required to bring the routes up to standard/LOS Cary out works to remain open	Waka Kotahi WDC NTA	Built Economic Social	SH1 open by 30 June 2023 IBC by 30 June 2023 Design and construction TBC
Damage to local roads, slips, slumping, damaged surface, culverts, and water tables Reduced LOS including longer travel times, safety, roughness, and risk of further damage	Restored level of service and reduced risk of reoccurrence	Assess damage and repair work required. Prioritise and prepare work programmes Undertake damage repair works Prepare estimates and IBC for larger (>\$100k) repair works and make funding applications and budget requests Seek community views on major priorities through Annual Plan process Keep community informed	NTA and contractors WDC	Built Social	IBC, revised budget proposals and funding applications by 30 March 2023 Repair works programme by 30 June 2023 Annual plan public process, April—June 2023 Regular public information ongoing

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Localised flooding of buildings due to overwhelmed stormwater systems/ reticulation, including blocked culverts	Reduced risk of building flooding from stormwater	Undertake water table and culvert clearing Assess damage and impacts and evaluate and report on risk reduction options (including more frequent inspection and clearing)	WDC Infrastructure NTA	Built	30 June 2023
Fallen trees and vegetation. H&S, road safety, access issues and damage to infrastructure	Clearance and removal of fallen trees and problem green waste Restoration of safe access and amenity LOS	Assess damage and work required. Prioritise and prepare work programmes Clear and dispose of trees and green waste including within transport corridors & parks, and on farms and other private property	WDC Infrastructure and Parks NTA/ contractors ETFG (MSD) WDC Mayoral Relief Fund	Built Economic Natural Social	30 June 2023
Slips and coastal erosion posing risks to (or from) council infrastructure, property, and community assets	Risk assessment and monitoring of significant slips, and coastal erosion	Slip assessments and monitoring programme established Preliminary risk assessments and prioritised remedial works programme prepared	WDC Infrastructure & Building NRC Hazards	Natural Built Social	30 June 2023
Damage to Whangārei Heads Road water supply reticulation due to land slips and subsidence	More resilient water supply reticulation to Whangārei Heads (McLeods Bay to end)	Temporary and damaged or high-risk pipeline replaced and reinstated below ground	WDC Infrastructure	Built	30 June 2023
Risk to Whangārei Heads wastewater reticulation due to land slips and subsidence	Risk to wastewater infrastructure understood and managed	Risk assessment of failure of wastewater to Whangārei Heads due to slip undertaken and risk mitigation plan prepared	WDC Infrastructure	Built	30 June 2023
Storm and slip damaged homes that have been assessed as unsafe and uninhabitable	Storm damaged homes assessed to be safe and habitable or a plan in place to make safe, or removed	Continue RBA if needed and establish a follow-up process to promote resolution	Property owners Insurers EQC WDC Building	Built Social	30 June 2023

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Marine and coastal structures damaged	Make safe all access and flood protection structures	Assessment of all public coastal assets Develop prioritised programme of recovery with cost estimates (IBC)	WDC Parks	Built Natural	13 April 2023
Rural sector impacts	Determine impacts and needs	Complete initial impacts and needs assessment for wider rural sector	MPI RST NAET	Built Economic Social Natural	24 March 2023
Farmland affected by slips and floodwaters	Remediate farmland affected by slips and floodwaters	Support provided on-farm clean up and remediation	Farmers ETFG WDC Mayoral Relief Fund KMR NRC	Natural Built	Ongoing into long term
Widespread and prolonged tele- communications networks failure during and fol- lowing cyclone	Resilient tele- communications networks that meet community needs includ- ing emergency services and support monitor- ing and opera- tion of essential infrastructure.	Request and advocate for significantly improved telecoms network resilience including back-up power supplies	Northland Lifelines Group WDC	Built Social Economic	Ongoing
Learning from the impacts of this event. Failing to use learnings from a major event will contribute to repeat impacts and increasing risk of worse impacts.	Useful damage/ impact and hazard data, maps, and other learning available for consideration in planning, strategy and policy development, and decision- making.	Establish processes to capture and record/map damage/impacts, and learnings from the event	WDC in collaboration with other stakeholders	All	30 June 2023
Psychosocial recovery of the community	Preserving community spirit and unity forged through adversity	Continue communications with communities Review need	WCG Te Whatu Ora WDC PIM	Social	30 April 2023

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Loss of community support/ understanding of ongoing work		Keep community informed	WDC Comms and Engagement	Social	Ongoing

Key medium-term priorities

Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Road network damage: see short term above	SH1 Brynderwyns open Local roads repaired to restored LOS and reduced risk of re-occurrence	SH1 Brynderwyns repaired to safe opening Programmed rehabilitation of affected roads Outstanding roading recovery and resilience improvement works, geotech assessments, options, estimates, and IBC prepared for input into RLTP preparation	Waka Kotahi NTA	Built	TBC
Detour routes for SH1 Brynderwyns	Resilient construction to incorporate shared path combined with water/sewage alongside road	Reinstate road and any utilities	WDC Infrastructure NTA	Built Social	TBC
Major infrastructure damage Whangārei Heads Road	Resilient construction to incorporate shared path combined with water/sewage	Reinstate road and utilities along Whangārei Heads Road—Castle Rock— Urquharts	WDC Infrastructure NTA	Built Social	30 November 2023
Active slips relating to infrastructure and community assets	Slip monitoring and risk mitigation	Follow up on active slips and execute work to mitigate risk	WDC Infrastructure	Built Social	Ongoing
Riverbed and stop bank damage	Riverbed and stop bank remediation	ТВС	NRC WDC	Built	TBC

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Land subsidence Increased risk of flooding	Stormwater catchment remediation	TBC	WDC Infrastructure	Built	TBC
Public tracks and walkways, beach access damaged and safe access reduced or lost	Safe public access restored	Restoration works undertaken	WDC NRC DOC Iwi and hapū	Natural	30 June 2024
Loss of community support/ understanding of ongoing work	Community understanding of challenges and situation	Frequent recovery communication to keep community informed of work (link with partner agencies)	WDC	Social	30 June 2024

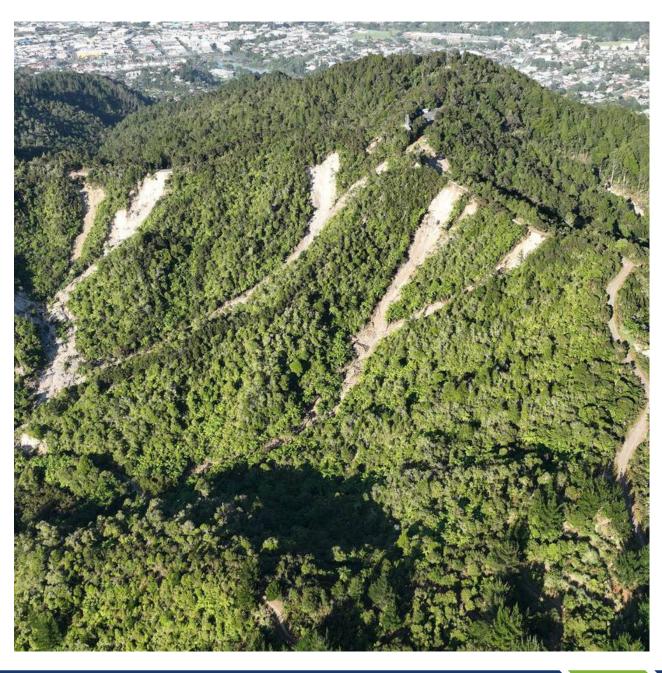
Issue / consequence	Desired outcome post- recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Road network damage (following on from short- and medium-term)	Completion of outstanding repairs and rehabilitation Resilient and fit-for-purpose roading network including SH1, detour routes, and local roads	Works completed as per funded programmes Agreed and supported programmes in Regional Land Transportation Plan 2024	Waka Kotahi NTA	All	Ongoing
Water network and water security risks	Improve water supply resilience including additions to reticulated networks and support for community not on network	Water network resilience improvement and community water security improvement options developed and included in Long Term Plan 2024—2034	WDC Infrastructure/ Three Waters entity	Built	Ongoing
Under slips and coastal inundation stability issues throughout roading network	Full remediation of District roading network	Included in Long Term Plan RLTP, and NLTP for funding	NTA Waka Kotahi	Built	12—24 months+

Issue / consequence	Desired outcome post-recovery	Actions	Lead agency Support Agencies	Relevant recovery environments	Date to be completed
Coastal inundation and flooding of central Whangārei city	Reduced inundation and flooding risks for City Centre and coastal infrastructure	Inundation risk reduction strategy developed along with climate adaption strategy Reinvigorate the Whangārei Flood Risk Reduction Working Group to review and pursue this	WDC Infrastructure and Strategy WDC NRC	Built	TBC
Stormwater attenuation improved	More area in city centre to accommodate coastal inundation	Evaluate options of flooded properties in low-level areas for attenuation purposes	WDC Infrastructure Climate Change Adaption	Built	TBC
Structures in low-lying and flood prone areas		District Plan to consider not allowing building in low lying areas (floodplains, swamps) and areas of instability	WDC	Built	TBC
Flood and slip-prone areas	Prevent further built development to avoid increasing or reduce risk	Include information and learnings from event into district planning Land remediated or retired	WDC EQC Insurance	Built	TBC



Reporting, monitoring, and evaluation He mahi tuhi pūrongo, aroturuki, arotake

Monitoring and evaluation of this Recovery will be done by each District Council of its own Recovery Plan, and by Northland CDEM of the Recovery overall, including the four Recovery Programme Groups/Ngā Pou Whakaoranga. Reporting will be made monthly on each of the Council's actions.



Winding down and exit strategy Te otinga

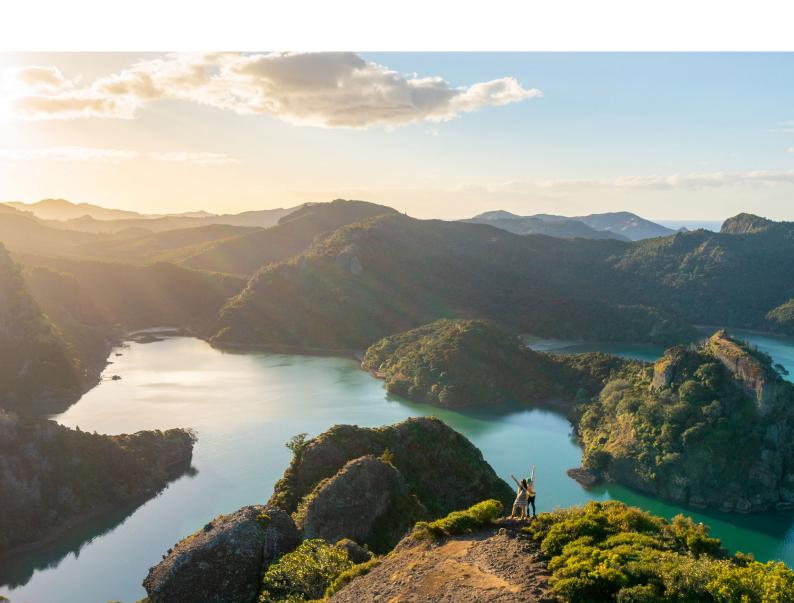
This Recovery from Cyclone Gabrielle will be wound down, with a formal exit strategy, once all of the actions in the final Recovery Plan are either:

- complete
- formally reassessed as no longer relevant, or
- able to be incorporated into Councils' or responsible agencies business-as-usual work.

Once the Recovery work is assessed as complete, the final action will be to undertake a 'lessons learnt'/overall evaluation.

This evaluation will include:

- evaluating the Recovery work itself
- capturing ideas and improvements for Recovery planning and actions for future events
- developing suggestions of future Reduction work that Regional and District Councils can take to reduce the likelihood or impact of future events.
- generating suggestions of future Readiness actions that Councils, communities, and households can take to prepare for future events.



E whai ake nei And after that

I believe that the recovery will be years in the making when all is accounted for. — Tom

Recovery will be hard and the memories of this will always be here. We can only hope we are more aware and prepared should it happen again. — 'Sads'

The National Disaster Resilience Strategy (New Zealand's national civil defence emergency management strategy) asks the question 'What is limiting our resilience?'. The first answer is 'Some of our people still suffer considerable poverty, social deprivation, and/or health issues that limit wellbeing, quality of life, and resilience' (p. 45). While we can't always reduce hazards, such as cyclones, we can reduce risk from future events, by addressing the contexts of people's lives:

Since we cannot usually reduce the likelihood of hazards occurring, the main opportunity for reducing risk lies in reducing exposure and vulnerability, and building capacity. Addressing these components of risk requires us to identify the underlying drivers of risk, which can include economic factors, urban and rural development choices and practices, degradation of the environment, poverty and inequality, and climate change. These, and a myriad of other factors, all create and exacerbate conditions of hazard, exposure, and vulnerability. Addressing these underlying risk drivers, and building our capacity to manage them, will reduce disaster risk, lessen impacts if they do happen, and, consequently, maintain development and growth.

(National Disaster Resilience Strategy, p. 14)

Northland CDEM is not tasked with solving these issues. But we do notice their relevance for our region during emergencies. Lower levels of income and infrastructure, compared to other areas of New Zealand, is something of a double-edged sword: it means we don't always have the resources to wholly prepare for future emergencies, or coordinate Recovery efforts with large amounts of funding; it also means that communities are used to relying on themselves and each other.

Te Tai Tokerau has one of the highest rates of locally-led Community Response Groups in the country, and many local communities are able to set up Community-Led Centres. These don't always have the supplies and infrastructure to support large numbers of people, and more strategic funding for this would be helpful. But the Northland spirit of kotahitanga — and just getting on with it — has helped us in the past, and will do in the inevitable events of the future.

The final words for this Regional Recovery Plan are from Kim, of Whangārei:

I hope our community wakes up to the realisation that our future will include these weather events more frequently and that our decisions on how we live need to consider the picture of climate change. I hope we plan for this future and when building back we don't repeat the mistakes of the past. I hope we learn from the brilliant support networks that worked together across Tai Tokerau to help everyone through and take action to reinforce these networks and ensure this resilience is built into all our communities.

Appendix - Acronyms list

During this Plan, acronyms are usually spelt out in their initial use. The following is a reference for acronyms that appear in later uses.

BAU — business as usual

BCA — Building Consent Authority

CDC — Civil Defence Centre

CDEM — Civil Defence Emergency Management

CEG — Coordinating Executive Group (for Northland

Civil Defence Emergency Management)

CLC — Community-Led Centre

CRG — Community Response Group

DOC — Department of Conservation

EOC — Emergency Operations Centre (activated at local Council level to coordinate emergencies)

 $EQC-Toka\ T\bar{u}\ Ake\ EQC$, also known as the Earthquake Commission (Crown entity that provides natural disaster insurance to residential property owners)

ET — Executive Team (at Kaipara District Council)

ETFG — Enhanced Task Force Green

FENZ — Fire and Emergency New Zealand

FNDC — Far North District Council

IBC - Indicative Business Case

ICP — Installation Control Point (an individual power connection, or power customer)

IRD — Inland Revenue Department

KMR - Kaipara Moana Remediation

KDC — Kaipara District Council

kV - kilovolt (1000 volts)

LOS — level of service

LRM — Local Recovery Manager/s (based at District Councils)

MBIE — Ministry of Business, Innovation and Enterprise

MPI - Ministry for Primary Industries

MSD — Ministry of Social Development

NAET — Northland Adverse Events Team (rural sector emergency management group, comprising peak rural sector bodies, Rural Support Trust, MPI, and Northland CDEM)

NCDEM — Northland Civil Defence Emergency Management; also Northland CDEM

NEMA — National Emergency Management Agency

NLTP — National Land Transportation Plan

NRC - Northland Regional Council

NTA — Northland Transportation Alliance (a collaboration between the Far North, Kaipara, and Whangārei District Councils, Northland Regional Council, and Waka Kotahi to deliver combined transportation services for Northland)

PIM — Public Information Management/Manager (CDEM communication function)

RLTP — Regional Land Transportation Plan

RST — Rural Support Trust

SLSC — Surf Life Saving Association

TAS - MBIE's Temporary Accommodation Service

WCG — Welfare Coordination Group

WDC - Whangarei District Council

WTP — water treatment plant

Regional Recovery Plan for Northland | Te Mahere Whakaoranga mō Te Tai Tokerau Cyclone Gabrielle 2023.

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