

**After Action Review:**  
**Cyclone Gabrielle - Wairarapa Response**  
**6 February to 7 March 2023**



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**Cover Image:** A satellite image of Cyclone Gabrielle taken at 8.20am on Tuesday 14 February 2023, when the centre of the cyclone was located north of the Bay of Plenty.

## Introduction

Over the period 12-14 February 2023 the North Island of Aotearoa New Zealand was impacted by Cyclone Gabrielle. According to MetService Head of Weather Communications Lisa Murray: <sup>1</sup>

“Gabrielle [was] one of the worst storms to hit Aotearoa New Zealand in living history. Like Cyclone Bola in 1988, Giselle that caused the Wahine disaster in 1968, and the unnamed cyclone of 1936, Gabrielle caused shocking impacts to the North Island.”

“Between the 12th and 14th of February, parts of Aotearoa New Zealand recorded rainfall amounts of 300-400mm, wind gusts of 130-140km/h and waves were recorded as high as 11 metres along some of our coasts. It is no wonder that the North Island experienced the devastating impacts that were seen from Cyclone Gabrielle.”

On 9 May 2023 the Department of Prime Minister and Cabinet released a Severe Weather fact sheet indicating that “the recent severe weather events in the North Island, including Cyclones Hale and Gabrielle and the Auckland floods, have caused widespread damage to land, waterways, infrastructure, businesses and homes. The extent of the damage is on a comparable scale to that caused by the Canterbury and Hurunui/Kaikōura earthquakes.” <sup>2</sup>

A week later the Government announced a billion-dollar flood and cyclone recovery package as part of Budget 2023 and announced that Treasury had estimated the damage from Cyclone Gabrielle and the Auckland Floods to be somewhere between \$9 billion and \$14.5 billion - second only to the Canterbury earthquakes in terms of damage from natural disasters that New Zealand has faced <sup>3</sup>. 11 people also lost their lives during the Cyclone.



**Image 1: Cyclone Gabrielle flood damage in the Hawke’s Bay (Source: Chris Skelton/Stuff)**

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<sup>1</sup> <https://blog.metservice.com/TropicalCycloneGabrielleSummary>

<sup>2</sup> Department of Prime Minister and Cabinet Severe Legislation 2023 Iwi-Council Factsheet dated 9 May 2023

<sup>3</sup> <https://www.beehive.govt.nz/release/flood-and-cyclone-recovery-package-covers-basics>

In response to Cyclone Gabrielle, six Civil Defence Emergency Management (CDEM) Groups<sup>4</sup> (Northland, Auckland, Waikato, Bay of Plenty, Tairāwhiti and Hawke's Bay) declared region-wide states of local emergency before a national state of emergency was declared on the morning of 14 February. The national state of emergency included the Tararua district of the Manawatū-Whanganui CDEM Group.

Although Masterton (MDC), Carterton (CDC) and South Wairarapa District Council (SWDC) areas - all of whom are members of the Wellington CDEM Group - did not declare a state of local emergency, were not included in a regional declaration and were not included in the national state of emergency declaration, all three districts were impacted by the cyclone. After a meeting with the Minister for Emergency Management, Kieran McAnulty, on 28 February (during which the three councils were asked if they wanted to be part of the national recovery transition period), on 7 March all three council areas were all included in the national recovery transition period for the event.

This event was only the third time in New Zealand's history that a national state of emergency had been declared. The previous two occasions were for the 2011 Christchurch earthquakes and the 2020 Covid-19 pandemic.

## Scope

Although After Action Reviews (AAR) are routinely carried out by CDEM Group members after each emergency event, the significance of this particular event and the impact it had on the Wairarapa resulted in all three Wairarapa councils asking for an external review of their performance during the event to be carried out.

The scope of the review was to cover the three areas of: governance (political oversight and accountability), operational matters (how CDEM Group members responded) and community outcomes (what impact these actions or inactions had on the community). It was to cover the way in which members of the Wellington CDEM Group responded to Cyclone Gabrielle in the Wairarapa between 6 February 2023 - when members of the Group were first alerted to the existence of the cyclone in the Coral Sea by the MetService - and 7 March 2023 - when Masterton, Carterton and Wairarapa Districts were all included in the national recovery transition period for the event.

The purpose of the review was to help members of the Wellington CDEM Group understand which parts of the response were done well and which parts could have been done better. It was also to help identify areas of future work to help improve the response capability of the region.

The review was originally due to be completed by 30 June 2023. However, in May the timeline was extended to allow more time for residents of some of the region's more remote communities to find out that the review was underway, to make submissions and then be interviewed if they wanted to be or the reviewer wished to interview them.

This report is the findings from that review. A review of the recovery aspects of this particular event will be done separately.

MetService summary documents of Cyclone Gabrielle's predicted track, rain, wind and wave forecasts, as well as how much wind and rain actually impacted different parts of the country, by region, are

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<sup>4</sup> CDEM Groups are described by the National Emergency Management Agency (NEMA) as a consortium of the local authorities in a region working in partnership with emergency services, lifeline utilities, government departments and non-government organisations to: identify and understand hazards and risks facing communities; prepare CDEM Group plans to manage those hazards and risks; and manage those hazards and risks in accordance with the 4R's of comprehensive emergency management (reduction, readiness, response and recovery). <https://www.civildefence.govt.nz/cdem-sector/cdem-groups/>

provided at Annexes A to E to this report. A timeline of the response is provided at Annex F and a timeline of the after-action review is provided at Annex G. A summary of the findings from the online survey that was carried out as part of the review is provided at Annex H.

## Executive Summary

While Cyclone Gabrielle was indeed an extreme event for the country, many of the impacts that were seen in the Wairarapa were less serious than what occurred elsewhere. However, the impacts that occurred in the Wairarapa had been seen previously. Not only did local residents recall seeing similar impacts during previous cyclones and severe weather events, but many had seen similar impacts during the previous twelve months. Some has seen similar impacts a month earlier during Cyclone Hale.

Initial warnings from the MetService were received a week before the cyclone struck. While there was some uncertainty around the path of cyclone up until the Friday beforehand (10 February), the fact the cyclone started impacting the top of the North Island first and then worked its way down the North Island meant that by the time it reached the Wairarapa there was some evidence to suggest that its impacts could potentially be serious.

Although various organisations were monitoring the cyclone as it approached and worked its way down the country, the Wairarapa EOC was not activated until the morning of 14 February - the day the cyclone struck. Different organisations (FENZ, Police and NZDF) were all doing their own assessments of the likely impacts before then and were deploying staff according to their individual assessments. The three Wairarapa councils (MDC, CDC and SWDC) were also monitoring the developing situation through their own Incident Management Teams (IMT).

While reporting from various sources across all three council areas suggests that residents were generally quite comfortable with the level of support they received before the cyclone struck, both in terms of public messaging and access to sandbags, frustrations started emerging once the cyclone struck. Individual council IMT struggled to get timely updates on the impact of cyclone to inform response efforts and this resulted in the MDC Controller deciding to activate the Wairarapa EOC. The way the activation was done and the timing of the decision – when individual councils were already managing the impacts of the event through their own IMT - caused tension between MDC and the other two councils (CDC and SWDC).

While survey respondents reported that the effectiveness of the response effort improved as the week progressed (situational awareness and response asset tasking improved, tensions were worked through and impacted communities got the support they needed), the fact the EOC was not activated before the cyclone struck meant local response efforts were not coordinated and delivered as early as they potentially could have been. However, various respondents did speak positively about various aspects of the response effort.

Most survey respondents who worked in the EOC spoke very positively about the number of organisations that worked together once the EOC was activated. Community members, also, spoke positively about the efforts of front-line responders (Response Team, NZDF, emergency services and welfare support organisations like the Rural Support Trust). While issues such as tasking, the trained state of staff and information collection were all highlighted as areas of potential improvement for front-line responders, most impacted community members were very appreciative of the support they received from these organisations. Indeed, the level of support provided to communities like Tinui and Castlepoint, in particular, was specifically mentioned.

While many of the communities that were impacted were accustomed to being isolated for short periods of time, some residents were frustrated that a more concerted effort had not been made to



prepare them better for the cyclone (community emergency hub training and emergency communications were specifically mentioned). However, once community emergency hubs and alternate communication methods were established, things did work better (community members worked out how they could help each other, and isolated communities were able to speak to staff in the EOC to arrange welfare support).

However, while response efforts improved as the week progressed, recovery staff were not present in the EOC from the outset. They did not contribute to response decision-making and recovery transition documentation was only partially prepared before the EOC de-activated. As a result, various challenges were encountered by those who were given the responsibility of managing the recovery process. If recovery staff had been involved from the outset, the extent of these challenges could potentially have been lessened.

So, while Cyclone Gabrielle was challenging for the Wairarapa, it did identify various areas where things were done well, and a number of important lessons that can now be considered by members of the Wellington CDEM Group to improve community preparedness and Group member response and recovery efforts going forward.

## Wairarapa Impacts<sup>5</sup>

The impacts from Cyclone Gabrielle were primarily felt in eastern and coastal parts of the Wairarapa, with impacts including power and telecommunication loss, and loss of access due to damaged roading and flooding. The main impacted areas were: Pack Spur, Mataikona, Tinui, Castlepoint, Whareama, Riversdale, Stronvar, Flatpoint, Pahaoa, Hinekura, Tukurumuri, Tora and Whiterock. However, other parts of the Wairarapa were also impacted.



**Image 2: Flooded car on Te Whiti Rd between Gladstone and Masterton (Source: Frances Chin/Stuff)**

For some communities, Cyclone Gabrielle was the second severe weather event in as many months (Cyclone Hale had impacted parts of the Wairarapa in January). Following a similar event in 2022, the scale and frequency of such events was noted in the 21 February Wairarapa Councils Response to

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<sup>5</sup> Wairarapa Councils Response to Recovery Transition Report dated 21 February 2023

Recovery Transition Report as starting to have a significant impact on the economic and social wellbeing of these traditionally stoic rural communities. Increasingly, there was growing unease within these communities about their ability to manage in a world of increasing climate change impacts. This unease was also having mental health impacts on some community members.

The village of Tinui was particularly hard hit. Major flooding and inundation caused significant water and silt damage to the local school, shop and pub. The local sub-station was inundated. This caused power failure, which impacted communications. The village's water supply was compromised. There was also significant damage to a number of homes on farms.



**Image 3: Flooding at Tinui (Source: Community Member/Tinui)**

### **Roading**

Multiple roads around the Wairarapa suffered heavy damage. Initial work focused on clearing roads to allow access for emergency services and residents.



**Image 4: Blocked Tinui road (Source: Community Member/Tinui).**



## Building Assessments

New Zealand Defence Force (NZDF) reported that up to 30 buildings across 14 properties in Tinui and Castlepoint needed assessment to ensure they were safe for occupation.

## Welfare

Over 20 people self-evacuated during the event. Two people were provided with emergency accommodation, three went to Whareama School, and the remainder found alternative accommodation by themselves.

Food was provided to Mataikona, Tinui and Castlepoint. A store of donated food was established at Tinui Community Hub for residents in need. For Castlepoint, the NZDF transported donated food for over 100 families from Countdown Palmerston North to Castlepoint.



**Image 5: Food being delivered to members of the Castlepoint community by members of the NZDF (Source: Masterton District Council).**

Medication was delivered to approximately 10 people. This was arranged by Wellington Free Ambulance and the Wairarapa Emergency Operations Centre (EOC).

By the end of the first week (20 February), a total of 45 civil defence welfare payments had been made to 29 families<sup>6</sup>. This comprised of 24 food payments, 6 accommodation payments, 8 loss of livelihood payments and 7 clothing/bedding payments.

## Education

A number of schools in the area closed at various points during the event, but eventually re-opened.

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<sup>6</sup> These figures do not include Ministry for Social Welfare (MSD) payments which were provided to residents in some communities, like Tinui, directly.



## Rural

There were significant impacts on the rural community. Access to animals and property was either not possible or limited in some areas. There were also reports of widespread farm damage, crop loss and land slips.



**Image 6: Kayakers paddling across Te Kopi Road, near Gladstone (Source: Frances Chin/Stuff)**

At least 500 sheep and cattle were reported lost in Tinui. In Otahome, South of Castlepoint, approximately 100 lambs were reported lost.

## Business

Tourism operators were hit hard, with coastal walkways damaged and scheduled events cancelled. Part of the annual Harvest Festival was cancelled and Wings over Wairarapa was postponed. The true impact on businesses is not expected to be known for some time.

## Warning and Readiness

The Wairarapa Emergency Operations Centre (EOC) was officially activated on Tuesday 14 February in response to the impact of the cyclone on the eastern and coastal areas of the Wairarapa. However, each of the three Wairarapa councils (Masterton, Carterton and South Wairarapa) had been running individual Incident Management Teams (IMT) prior.

Each council had been individually monitoring the situation since the National Emergency Management Agency (NEMA) reported on Monday 6 February that the MetService had assessed that there was a moderate risk that a tropical low in the Coral Sea would develop into a named cyclone on Wednesday 8 February. Some models showed the system moving southeast before tracking south of New Caledonia and towards northern Aotearoa New Zealand over the weekend.<sup>7</sup>

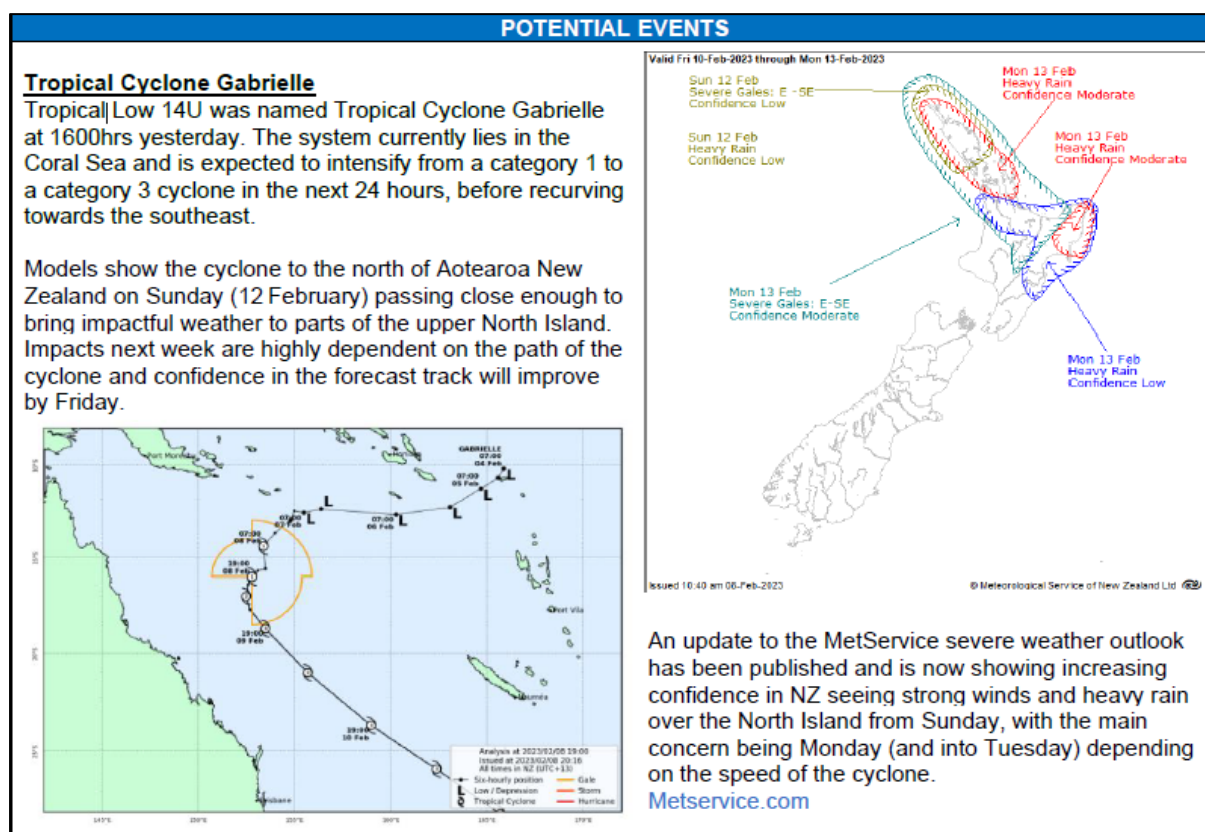
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<sup>7</sup> NEMA Daily Intelligence Bulletin issued at 0800hrs 6 February 2023

On 8 February NEMA then issued the following update, based on MetService advice:<sup>8</sup>

*The tropical low remains a high risk of developing into a tropical cyclone. The system lies in a very favourable environment and could reach severe tropical cyclone intensity (category 3 or above) from Thursday 9 February while over open waters in the Coral Sea. The system is expected to start moving southeast later in the week, tracking to the far south of New Caledonia, then possibly towards the upper North Island on Monday 13 February. However, there is considerable uncertainty in the future track at this early stage.*

On 9 February NEMA then issued the following update, based on MetService advice, showing no expected impacts for the Greater Wellington region or the Wairarapa:<sup>9</sup>



However, by 8.00am on Friday 10 February the assessment had changed indicating a moderate degree of confidence that warning amounts of rainfall would impact the Wairarapa and a high degree of confidence that severe gales would impact the wider region:<sup>10</sup>

<sup>8</sup> NEMA Daily Intelligence Bulletin issued at 0800hrs 8 February 2023

<sup>9</sup> NEMA Daily Intelligence Bulletin issued at 0800hrs 9 February 2023

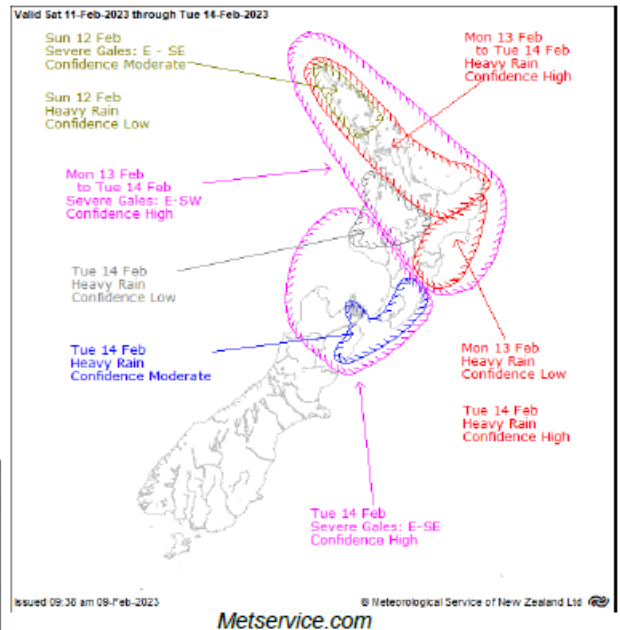
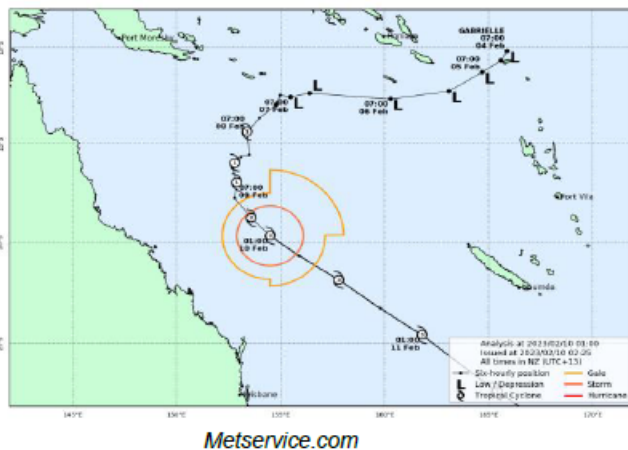
<sup>10</sup> NEMA Daily Intelligence Bulletin issued at 0800hrs 10 February 2023

## POTENTIAL EVENTS

### Tropical Cyclone Gabrielle

Tropical Cyclone Gabrielle, currently in the Coral Sea, is forecast to track southeast towards Aotearoa over the next few days. It is expected to bring significant severe weather to northern and central Aotearoa from late Sunday onwards.

Gabrielle is likely to approach the northern North Island on Monday and possibly move onto northern and central parts of the North Island on Tuesday. MetService issued the first severe weather watches for this event yesterday. These will upgrade to severe weather warnings on Friday and Saturday, and potentially escalate to red warnings, if required, on Sunday. The times are track dependent and could change as the system changes speed or direction.



There is moderate confidence that warning amounts of rainfall will affect the Wairarapa, the Tararua Ranges, and eastern Marlborough on Tuesday. Further on Tuesday, east to southeast winds will reach severe gale levels about southern parts of the North Island from Taranaki to Wellington and Wairarapa, and also about Marlborough, Nelson, and northern Buller.

Following a briefing from the MetService at 10.00am that morning, a regional teleconference was convened by the Wellington CDEM Group Controller for councils and local controllers at 12.30pm to discuss the developing situation and their individual preparations. At 2.05pm a list of key messages for the general public was sent to the regional Public Information Management (PIM) network – which included PIM staff in each of three Wairarapa councils – for further dissemination via their individual networks.<sup>11</sup>

The key messages were as follows:

- Strong wind gusts from tropical cyclones can make driving hazardous (especially for high-sided vehicles and motorcycles). They can damage trees and down powerlines.
- For these reasons we encourage people to and avoid any unnecessary travel and take extra care on the roads (especially for high-sided vehicles and motorcycles).
- We also encourage people to be prepared for power outages and secure any loose items around their property that could potentially become projectiles (like chairs and trampolines etc).
- Tropical cyclones can also bring heavy rain. Heavy rain may cause streams and rivers to rise rapidly. Surface flooding and slips are also possible and driving conditions may be hazardous.

<sup>11</sup> WREMO Key Messages for Tropical Cyclone Gabrielle email sent at 2.05pm 10 February 2023



- For these reasons we encourage people to know their risks (what hazards could potentially impact them), to have a plan, to store emergency water and know where their nearest Community Emergency Hub is.

Specific advice that was included in the messaging was as follows:

**What people can do:**

**Before:**

- Understand what your risk is before an event by checking out flood maps and information on your council's website.
- Create a plan in case access to your house is cut off, or you need to evacuate due to flooding or landslides. Share and practice that plan with your family.
- Ensure you have a grab bag ready. Include key items like medication and warm clothing.
- Have a plan for your pets and/or livestock.
- Simple things: Ensure drains and gutters are kept clear to help water drain away as quickly as possible!
- Secure any outdoor items like wheelie bins, trampolines and outdoors furniture that may blow around.

**During:**

- In the event of a cyclone or storm we advise people to avoid unnecessary travel. If you must travel take extra care on the roads especially for high-sided vehicles and motorcycles. Be ready to slow down or stop, if driving.
- Clear stormwater drains and gutters to help prevent surface flooding.
- Take shelter indoors.
- Avoid streams and waterways.

At 5.20pm that afternoon the WREMO Duty Officer received the following update from its Emergency Management Advisor in the Wairarapa:

Kia ora

We've spent most of the day planning with [the Wairarapa EOC primary Controller]

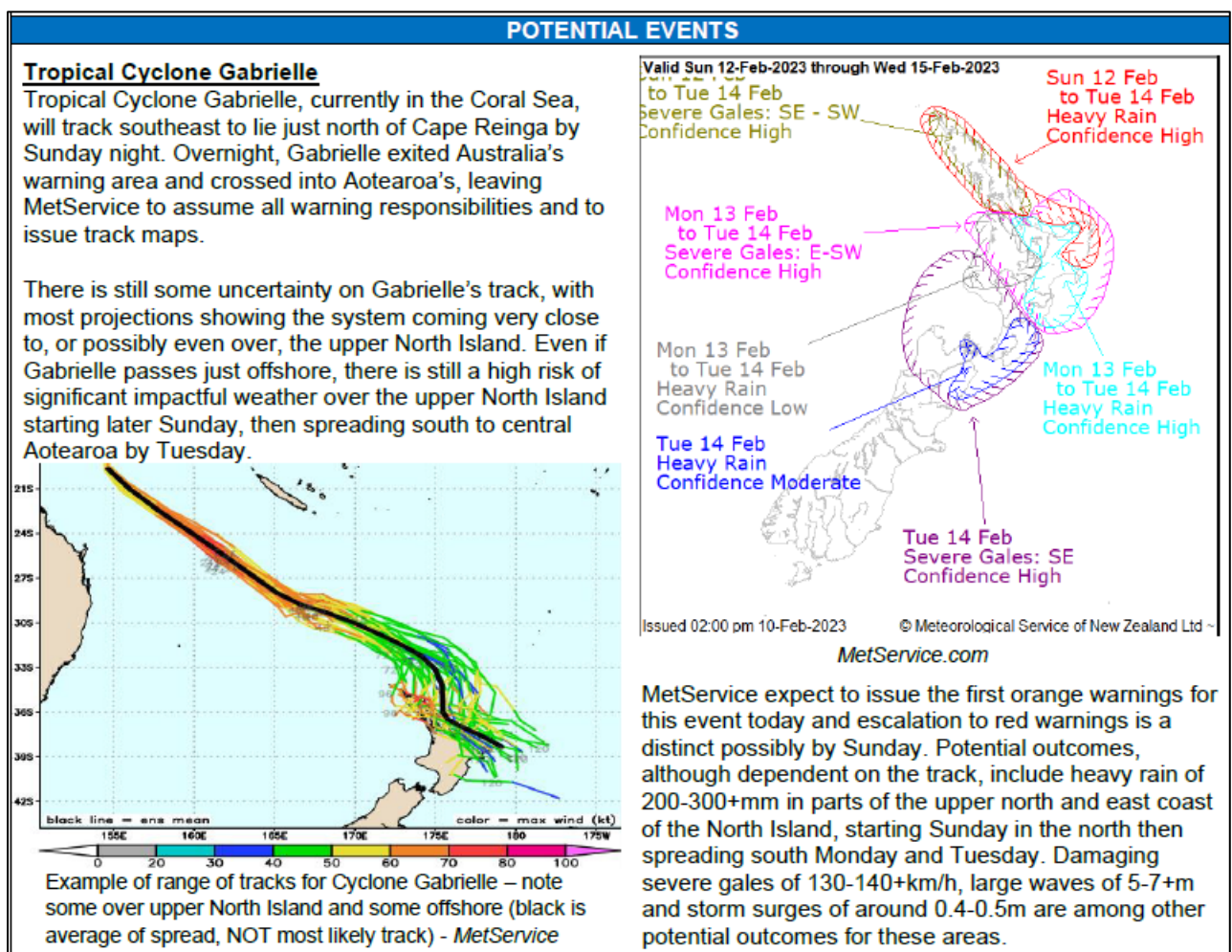
- Communications have been going out through the three Councils
- Emergency Assistance Centres (EACs) have been identified in our 5 townships, and could be stood up if necessary
- Sandbag support is different across the three Councils, they are communicating that individually
- A meeting was held with emergency services this morning regarding capacity and capability

A small group is on standby overnight. We plan to meet at 8am tomorrow.

Noho ora mai rā,

[Name]

On the morning of Saturday 11 February NEMA then issued the following update, based on MetService advice:<sup>12</sup>



<sup>12</sup> NEMA Daily Intelligence Bulletin issued at 0800hrs 11 February 2023

This was later followed by the following MetService Severe Weather Watches for the region:<sup>13</sup>

**From:** [SORT\\_MSG@METSERVICE.COM](mailto:SORT_MSG@METSERVICE.COM) <[SORT\\_MSG@METSERVICE.COM](mailto:SORT_MSG@METSERVICE.COM)>  
**Sent:** Saturday, 11 February 2023 10:13 am  
**To:** Duty Officer - Wellington CDEM Group <[duty.officer@wremo.nz](mailto:duty.officer@wremo.nz)>  
**Subject:** Severe Weather Watches : 256783

## Severe Weather Watches

Issued at: 10:13am Saturday, 11th February 2023

### Situation

Tropical Cyclone Gabrielle is located in north Tasman Sea and is expected to move southeast towards New Zealand in the coming days. We expect to see impacts from this cyclone from Sunday starting in the north and spreading south to other parts of northern and central New Zealand. This is expected to be a widespread and significant weather event. Significant heavy rain and potentially damaging winds are forecast for many parts of northern and central New Zealand. It is important to keep up to date with the latest MetService forecasts in case any changes are made, or further areas are added.

### Strong Wind Watch for Tararua, Kapiti-Horowhenua, Wairarapa, Wellington

Issued: 10:12am Saturday, 11th February 2023

Area: Hawke's Bay, Wairarapa including the Tararua District, Taranaki, Whanganui, Manawatu, Horowhenua, Kapiti Coast, Wellington, Marlborough, Nelson, Buller north of Seddonville

Valid: 6:00pm Monday to 6:00pm Tuesday

South to southeast winds are expected to approach or possibly exceed severe gale in exposed places. The duration of the event and the strength of the wind is highly dependent on the track of Cyclone Gabrielle. This Watch could be upgraded to an Orange or possibly Red warning in the coming days.

### Heavy Rain Watch for Tararua, Wairarapa

Issued: 10:12am Saturday, 11th February 2023

Area: Wairarapa including the Tararua District

Valid: 12:00pm Monday to 12:00pm Tuesday

Periods of heavy rain. Rainfall amounts may reach warning criteria especially about the ranges and the eastern hills.

Since the MetService had issued Severe Weather Watches rather than Severe Weather Warnings, the following public messaging was shared via social media:<sup>14</sup>

<sup>13</sup> MetService Severe Weather Watches:256783 issued at 1013am 11 February 2023

<sup>14</sup>

<https://www.facebook.com/WREMONz/posts/pfbid09bCuAQqsZf6meGtPto2tCWBJQr3o7E9gSeeNSHDPcuFud1JqmEQms7vyo1J6RkwNI>





Wellington Region Emergency Management Office

11 February

#Update: We are monitoring

Kia ora Wellington region whānau,

To our whānau up North - our thoughts are with you as we know many communities are already in challenging situations from the recent flooding, and now with another potential severe weather event on the horizon. Kia kaha whānau.

For our Wellington region whānau - We are working closely with [MetService New Zealand](#) in monitoring the track of [#CycloneGabrielle](#) as it makes its way to Aotearoa, New Zealand.

There is still some uncertainty around the path of the cyclone. The severity of the weather and the areas affected is highly dependent on its track.

Currently, the Wellington region has in place: a Heavy Swell Warning (Wairarapa) and \*Watches\* for Heavy Rain/Strong Wind. These watches could be upgraded into warnings in the coming days. Any possible impacts for the Wellington region are forecast to be from Monday 13th.

What does a "watch" 🙄 mean?

A 'Watch' is used when severe weather is possible, but not imminent or certain. When a Watch is in place, stay alert and keep an eye on the forecast for updates.

We advise our Wellington whānau to keep an eye on the forecast and up to date through [metservice](https://www.metservice.com/warnings/home) at: <https://www.metservice.com/warnings/home>

We will continue to monitor this closely as we usually do, and provide further updates and advice as needed over the coming days – WREMO duty team

# We are monitoring Cyclone Gabrielle



On the morning of Sunday 12 February NEMA then issued the following update, based on MetService advice.<sup>15</sup>

### POTENTIAL EVENTS

**Tropical Cyclone Gabrielle**

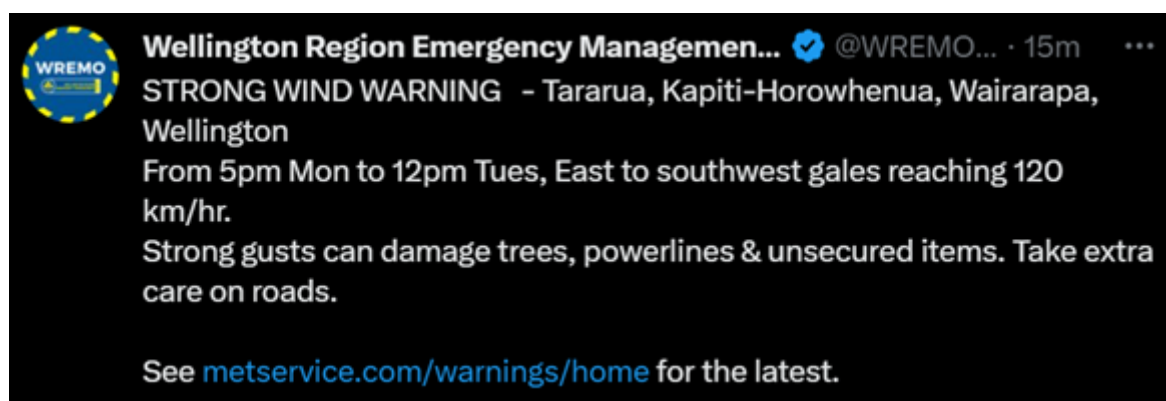
Tropical Cyclone Gabrielle passed over Norfolk Island overnight causing power outages and trees to fall from the wind. Cyclone Gabrielle has moved southeast faster than expected and will now track to lie just north of Cape Reinga by 12noon today.

MetService.com

Models are coalescing to a common track which project this system coming very close to, or possibly even over, the upper North Island during Monday. Even if Gabrielle passes just offshore, there is still a very high risk of extreme and impactful weather over the upper North Island starting early Sunday, then spreading south to central Aotearoa by Monday with eastern regions expected to be worst hit.

MetService issued the first severe weather warnings for this event yesterday which include red heavy rain warnings for Coromandel Peninsula and Gisborne north of Tolaga Bay. Orange heavy rain and strong warnings exist for most of the remainder of central, eastern, and upper North Island with the possibility of. Potential outcomes for these areas include heavy rain of 200-300+mm, damaging severe gales of 130-140+km/h, large waves of 5-7+m and storm surges of around 0.4-0.5m. The storm surges on top of waves and tides pose significant coastal inundation threat to low lying areas.

This was later followed by an escalation of the previous day’s Severe Weather Watches to Orange Severe Weather Warnings, which were emailed to the regional PIM network – including the three Wairarapa councils - for further dissemination via their own networks and posting on social media (Facebook and Twitter):



<sup>15</sup> NEMA Daily Intelligence Bulletin issued 0800hrs 12 February 2023



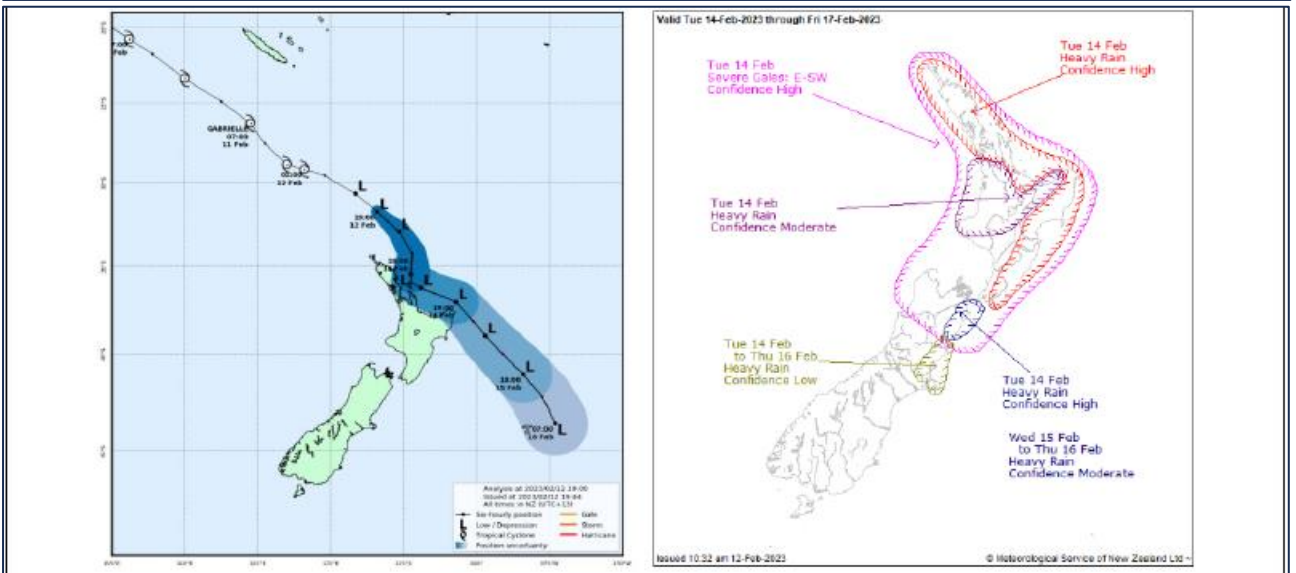
Wellington Region Emergency Management... @WREMO... · 8m

**HEAVY RAIN WARNING-Tararua, Wairarapa**

From 4pm Mon - 12pm Tues, 80-140mm of rain, peaks rates 15mm/h. Heavy rain may cause streams & rivers to rise rapidly. Surface flooding & slips are also possible & driving conditions may be hazardous. See [metservice.com/warnings/home](https://metservice.com/warnings/home) for more.

A pre-recorded radio interview was also completed by the CDEM Group Regional Manager later that afternoon for airing the following morning. On the morning of Monday 13 February NEMA then issued the following update, based on MetService advice:<sup>16</sup>

POTENTIAL EVENTS
NTR
CURRENT EVENTS
<p><b><u>Cyclone Gabrielle</u></b></p> <p><b>National</b> Tropical Cyclone Gabrielle was reclassified as a subtropical low at 0700hrs yesterday morning and will now be referred to as Cyclone Gabrielle. At 0100hrs this morning, the centre of Cyclone Gabrielle lay approximately 230km north northeast of Cape Reinga.</p> <p>Overnight, Northland recorded winds up to 140km/h, the Hauraki Gulf recorded winds up to 135km/h, and wind speeds at the Auckland Harbour Bridge reached 110km/h. The western Coromandel Peninsula was buffeted by winds of up to 160km/h, while wind speeds for other parts of the Peninsula were up to 110km/h. Whangarei and Kaikohe received 70mm of rain over 12 hours and there was no significant rainfall in Auckland overnight.</p> <p>As Cyclone Gabrielle starts recurving to the southwest and moving towards the outer Hauraki Gulf, it will bring further heavy rain and southeast gales. This evening, rain should start easing in Northland as winds there turn southwest, while further very heavy rain is expected from Auckland southwards.</p>



At 10:00am the MetService provided the following update to NEMA and Group Controllers, which was then shared with all councils at the 10:30am regional CDEM teleconference that was convened by the Wellington CDEM Group Controller:

<sup>16</sup> NEMA Daily Intelligence Bulletin issued 0800hrs 13 February 2023

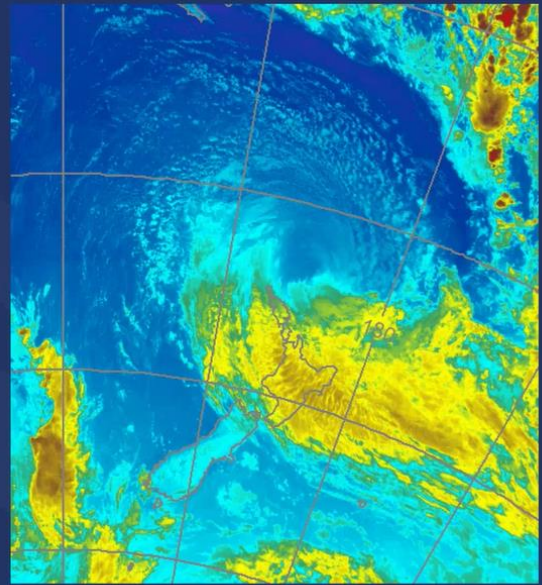


# MetService Briefing 13 February 2023

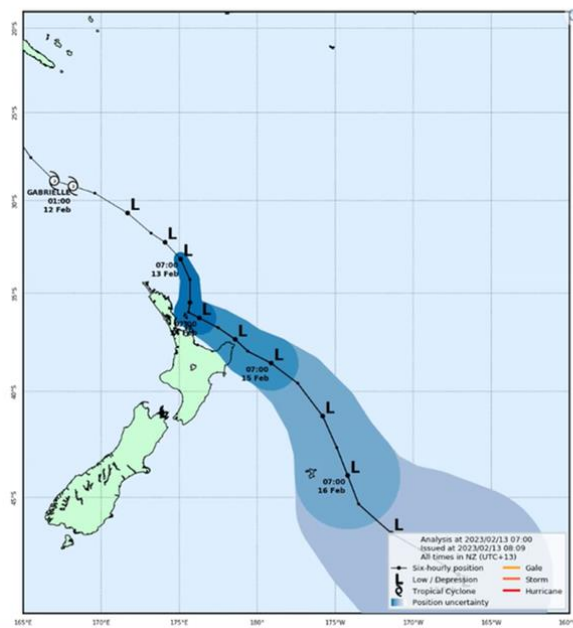
Satellite at 7:00am

## Current situation – Cyclone Gabrielle

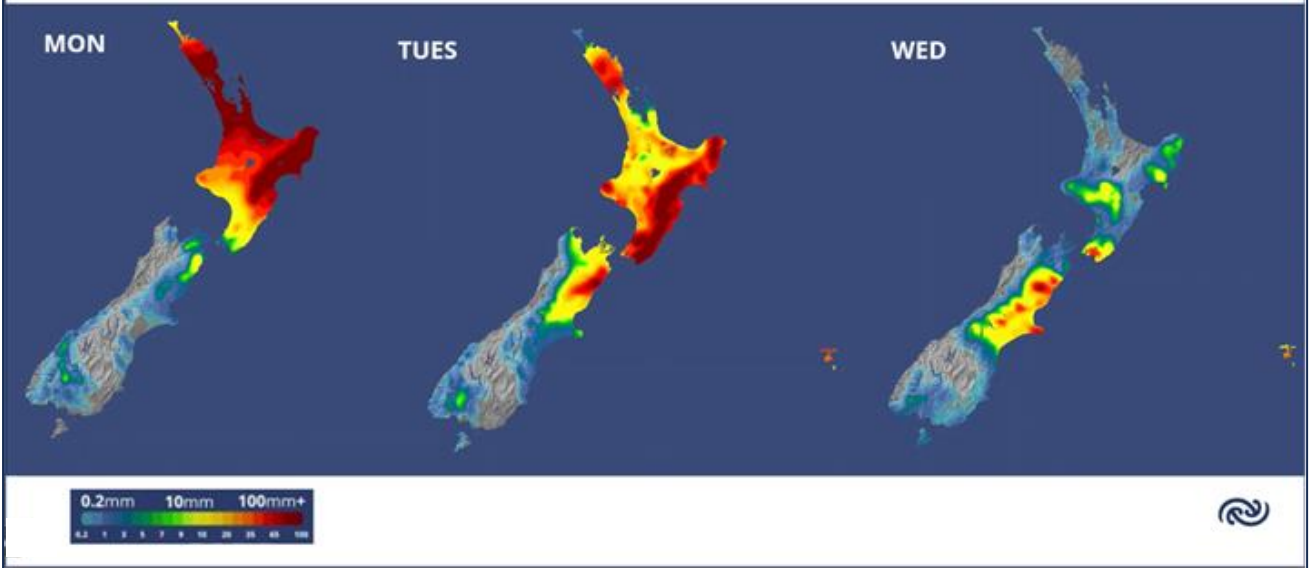
- Cyclone Gabrielle is currently located 260 kms northeast of Cape Reinga.
- Forecast to move south to lie just east of Great Barrier Island at midnight tonight.
- Heaviest rain and strongest wind currently about Northland, Auckland and Coromandel.



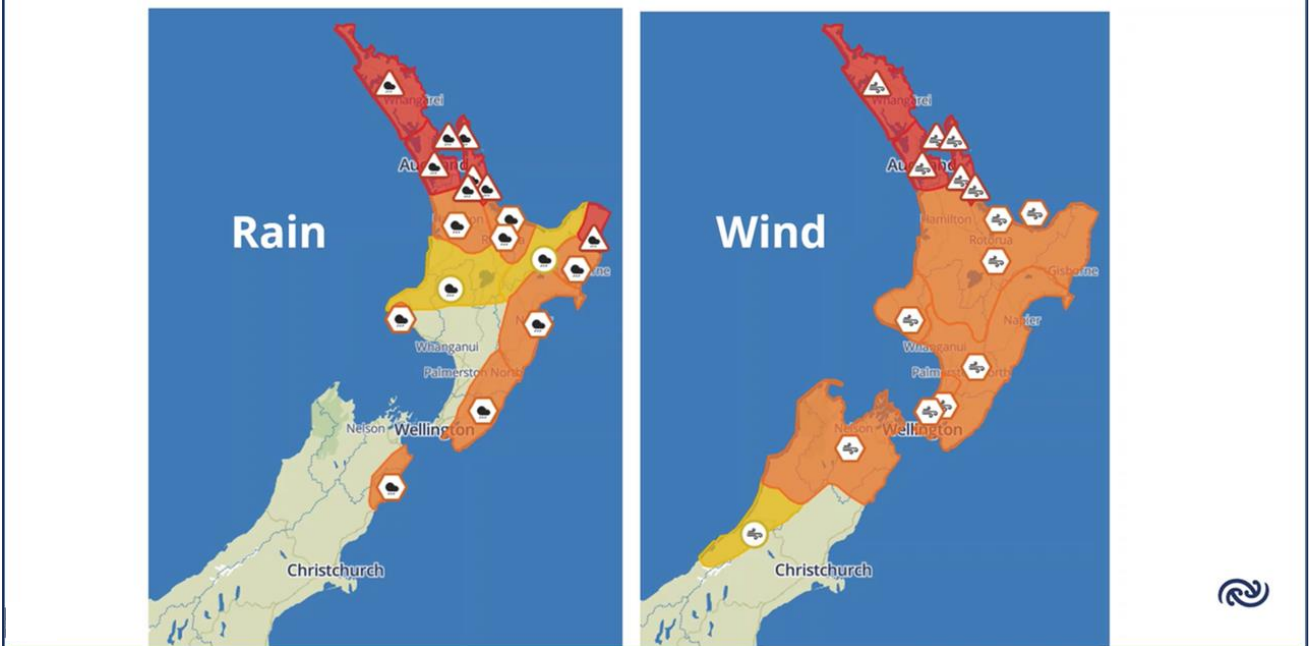
## Track: Consistent curve towards Great Barrier Island



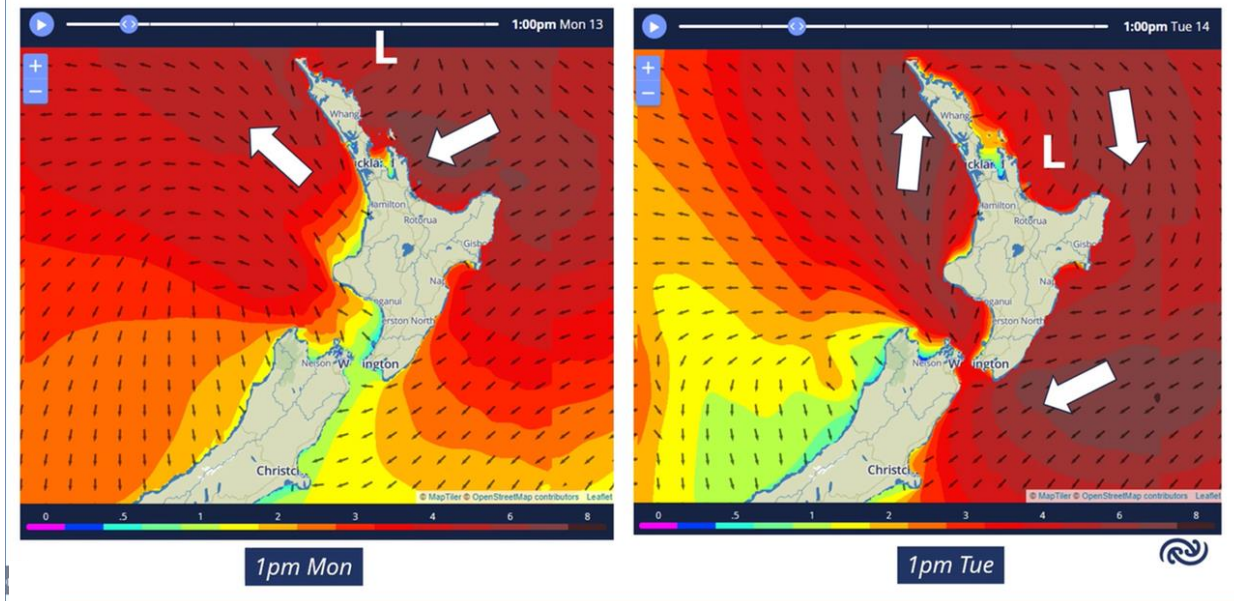
## Heavy rain and gales for the North Island, especially north and east



## Warnings and Watches in force



## Significant wave height; 5 – 7m or more



Updated public messaging was shared with the regional PIM network at 12:22pm for further dissemination via their own networks. This was followed by another radio interview by the Regional Manager at 5.15pm telling the public what to expect.

30 minutes earlier, at 4.45pm, the WREMO Duty Officer issued the region's first Situation Report for Cyclone Gabrielle<sup>17</sup>. The SITREP reported the emergency services (Police, FENZ and Wellington Free Ambulance) had been liaising with local councils and partner agencies, pre-positioning resources across the region and monitoring the weather situation closely. Te Whatu Ora had been carrying out contingency planning for any medically dependant clients who could be impacted by power outages. Waka Kotahi had reported they had concerns about the Remutaka Hill being closed due to slips. As a result, two NZDF Unimog trucks and some personnel were pre-positioned on the Wairarapa side of the hill to be able to respond if the hill should be closed. Wellington Water was completing pre-impact maintenance and checks. Wellington Electricity, Electra and Powerco were preparing for impacts and doing contingency planning for possible outages. Three response teams (NZRT 7 from Victoria University, NZRT 9 from Upper Hutt and NZRT from Hutt City) had volunteer staff who were able to respond if needs be. Animal Evac could also deploy people if needs be.

SWDC reported they were continuing to develop public messaging and passing information onto elected officials. Papawai marae was prepared to open to support the community if required. CDC reported that equipment had been hired for local hot spots and they had received enquiries about preparedness and sandbags. As a result, they would be opening up one of their depots to the community to allow people to fill personal sandbags. MDC indicated they were also sharing information with the public and elected officials. They had also received enquiries about sandbagging and were considering opening up facilities for this purpose also.

While the above suggests a good level of awareness and preparation for the upcoming cyclone, interviews with staff from all three Wairarapa councils and the emergency services indicated that there was no central coordinating authority for the Wairarapa. Each council was managing its own area independently through its own Incident Management Team (IMT) - even though they had an agreed concept of operations with Greater Wellington Regional Council (GWRC) on how they were going to work together to manage an incident or an emergency that required coordination across

<sup>17</sup> Wellington CDEM Group Cyclone Gabrielle Situation Report (SITREP) #001 issued 1645hrs 13 February 2023



multiple agencies<sup>18</sup> - and emergency services were pre-positioning their own people based on their own knowledge of previous events of a similar nature.

**Recommendation #1:** All three Wairarapa councils establish appropriate coordination arrangements in accordance with the agreed concept of operations to ensure a common level of situational awareness to inform effective decision-making and effective use of limited resources. This could be done virtually or physically by activating the EOC.

## Response

The next morning, Tuesday 14 February, NEMA issued the following national update:<sup>19</sup>

CURRENT EVENTS
<p><b>Cyclone Gabrielle</b> Gabrielle is lying near Great Barrier Island before dawn today and is expected to move eastwards to lie just north of Gisborne this afternoon. Red severe weather warnings are in force for Northland, Auckland, the Coromandel Peninsula, and Taranaki. Orange severe weather warnings are in force for many remaining North Island regions, with the potential for these to be expanded further.</p>
<p><b>National</b> Overnight, heavy rain, severe gales, and storm surges buffeted the eastern coastline of the upper North Island, with impacts seen right down to the Hawke's Bay. Over the past 24 hours, rainfall in excess of 450mm has fallen over Northland, Auckland, the Coromandel, the Bay of Plenty, Tairāwhiti, and the Hawkes Bay.</p> <p>Yesterday and overnight, several Group's declared region wide states of local emergency; Waikato, the Bay of Plenty, Tairāwhiti, and Hawkes Bay. These declarations have superseded prior declarations by District and City Council's in those regions. In some areas, the public are waking to find significant coastal inundation and flooding, while others are sheltering following mandatory or self-evacuations overnight.</p> <p>Transit between regions has been severely affected by flooding and landslips. The East Cape is completely isolated with SH35 closed north of Gisborne and at Opotiki in the Bay of Plenty. SH2 is closed between Gisborne and</p>

Opotiki and Gisborne and Napier, making Gisborne and the wider East Cape extremely isolated and at risk of medical and other emergencies should impacts escalate. SH5 between Napier and Taupo is also closed, severely limiting route options for those in the Hawke's Bay intending to travel north.

While significant impacts had been experienced further north, impacts on the Wairarapa initially appeared to be minimal<sup>20</sup>. River levels that had risen in the Wairarapa overnight from around 110mm of rain that had fallen in the eastern catchments were reported by GWRC Flood Protection Team as dropping. Moderate winds of 22kmh gusting to 48kmh were being recorded at the Rimutaka Hill summit and lifeline utility organisations (roading, electricity, water, telecommunications and fast-moving consumer goods) were all reporting no outages.

However, by 10:30am – when the regional CDEM conference call occurred – the situation had changed. GWRC Flood Protection Team reported they were seeing heavy rain in places across the region and were expecting water levels to continue to rise into the afternoon. This was likely to cause some surface flooding. FENZ reported they had received no wind or rain related calls overnight. However, Powerco indicated they had a couple of outages East of Masterton. SWDC indicated Tora had been without power since 4:30am. CDC indicated they were checking on the community at Flatpoint. MDC indicated Tinui and Castlepoint were cut off, they were considering whether they should declare a state of local emergency (whether it would add any value) and were activating the Emergency Operations Centre (EOC). According to the first SITREP from the Wairarapa EOC, the EOC was “stood up” [activated] an hour later at 11:30am.<sup>21</sup>

<sup>18</sup> SWDC, CDC, MDC and GWRC Concept of Operations Wairarapa dated 15 December 2022

<sup>19</sup> NEMA Daily Intelligence Bulletin issued 0800hrs 14 February 2023

<sup>20</sup> Wellington CDEM Group Cyclone Gabrielle Situation Report (SITREP) #002 issued 0700hrs 14 February 2023

<sup>21</sup> Wairarapa Emergency Operations Centre Cyclone Gabrielle SITREP #001 issued 1500hrs 14 February 2023



**Recommendation #2:** All EOC reports use correct Coordinated Incident Management System (CIMS) terminology in status reporting.<sup>22</sup>

Since the teleconference had representatives of MDC, CDC, SWDC and GWRC on the call, the MDC Local Controller “assumed” that the other council representatives would inform their relevant Chief Executives and Mayors<sup>23</sup> [or Chair in the case of GWRC]. This was contrary to para 3.3 of the SWDC, CDC, MDC and GWRC Concept of Operations which states the “Local Controller will notify the relevant Chief Executives of activation” and the Summary of Response Activities (Chart 1) which states a Level 2 Activation (an incident involving one or more territorial area, which requires the coordination of response activities across multiple agencies, without a declaration) will either be managed by the relevant council Crisis Management Teams (CMT) or by the “Local Controller if agreed by council CE’s”.

**Recommendation #3:** Local controllers from the three Wairarapa councils follow the agreed activation procedures outlined in the agreed concept of operations.

**Recommendation #4:** Council Management Team terminology – IMT or CMT - be consistent with what is in the agreed concept of operations.

According to staff at both CDC and SWDC, the decision by the MDC to activate the Wairarapa EOC was made unilaterally. The MDC Local Controller did not get the agreement of his counterparts at CDC or SWDC before announcing the activation. Nor did he have the agreement of council CE’s. This caused tensions between the councils as para 3.4 of the SWDC, CDC, MDC and GWRC Concept of Operations states that on activation:

*Councils are required to contribute staff to the Wairarapa EOC in proportion to their population...23.3% to SWDC, 20.3% to CDC and 56.4% to MDC. Greater Wellington Regional staff who live locally may also support the response co-ordinated by the GW Senior Advisor, Business Resilience.*

While CDC and SWDC indicated were not averse to the idea of sending staff to the Wairarapa EOC when activation of the EOC had been agreed between all three councils, the fact they were already managing impacts in their own areas with their own staff when the activation decision was made meant they effectively had to handover responsibility for managing the event to the Wairarapa EOC and send their staff to Masterton to resource it. Although such a handover of responsibility was not ideal mid-way through an event, it was possible. However, two things made CDC and SWDC reluctant to do so. The first was MDC’s heavy focus on Tinui and neighbouring communities which, while important, distracted it other impacts in other parts of the Wairarapa. (On one occasion, when SWDC contacted the EOC to talk about an isolated community, they were allegedly told “sorry, you are on your own” by an EOC staff member). The second was the absence of a Wairarapa-wide intelligence collection plan and impact assessment to inform the EOC’s operational response.

**Recommendation #5:** To ensure that the Wairarapa EOC functions effectively and provides the required level of service across the whole Wairarapa, local controllers adhere to the three initial response objectives of situational awareness (to inform an effective response), safety of the public and responders, and public messaging across the whole Wairarapa.

Not only did councils and emergency services know before the event happened which communities often get isolated during adverse weather events, but they also had the opportunity to put resources (such as operational staff with communications) into those communities before the cyclone struck to provide good situational awareness, connectivity with the EOC and an understanding of what support

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<sup>22</sup> CIMS 3.0 (page 23) refers to “activation”.

<sup>23</sup> MDC Local Controller Cyclone Gabrielle Interview dated 21 June 2023

(if any) each community needed. However, since no central coordinating authority was established for the Wairarapa during the warning phase of the event (Recommendation #1 refers), no centralised intelligence function was established to identify the individual communities that were likely to be impacted by the event ahead of time and make effective use of the limited resources that existed across the Wairarapa to ensure that each community could communicate with the EOC during and after the cyclone. Instead, different organisations (emergency services and councils) made their own assessments of which communities could be impacted and positioned their own resources according to their individual assessments.

**Recommendation #6:** The Wairarapa EOC establish a centralised intelligence function to assess the expected impacts of the event for the whole Wairarapa before it happens and develop and implement an intelligence collection plan to confirm or negate those impacts during and after the event has happened.

**Recommendation #7:** Planning and Operations functions of the EOC use the assessment that is provided by the Intelligence function in Recommendation #6 to inform the pre-positioning of appropriate resources to provide good situational awareness, connectivity with the EOC and understanding of what support (if any) each community needs.

Because different organisations (emergency services and councils) made their own assessments of which communities could be impacted and positioned their own resources according to their individual assessments, initial impact reports were only received from communities that still had power (and therefore communications) or staff from specific agencies (such as Police or FENZ) who had their own radio networks and could communicate with other staff from their respective organisations. Only when this information was shared with council IMTs or the EOC (once activated) did better situational awareness start emerging.

**Recommendation #8:** Liaison staff from partner organisations (such as emergency services, lifelines and welfare organisations) should be involved in the activation of the EOC from the outset.



**Image 7: Liaison staff from partner organisations in the EOC (Source: Masterton District Council)**

However, not all council staff were aware of what was going on or contributing to the intelligence picture either. In MDC the Māori Liaison staff member was not included in proceedings until Tuesday when conversations were being had around whether or not to declare a state of emergency. While invitations had been sent to them, they had not attended. To help inform the intelligence picture, the individual rang each marae to see if they had been impacted. They reported they were fine. Upon entering the EOC, the Māori Liaison staff member said they felt unwelcome (no Māori Liaison function desk had been set up for them to occupy). As a result, they worked out of another room for the rest of the response. In that room they activated a phone tree so that everyone in the local Māori community knew what was going on.

**Recommendation #9:** Staff from all relevant council functions (including Māori Liaison) should be involved in the activation of the council IMT and EOC from the outset.

Subsequent inquiries indicated that this was not the first time that Māori Liaison staff had not been included in council responses to events. While things had reportedly worked well during the first Covid-19 lockdown in 2020, things reportedly started deteriorating in 2021 when the Māori Liaison staff member was not included in a number of other emergency event meetings. No engagement reportedly occurred after that. Indeed, it was only when the MDC CE intervened at the start of the Cyclone Gabrielle response – saying that he thought she should be included – that she was eventually included in proceedings.

**Recommendation #10:** Māori play an important role in emergency management and should be included in proceedings from the outset. To do this, council staff need to ensure that the EOC environment is welcoming and inclusive.

Communities that had no power or staff from specific organisations (like Police or FENZ) that could pass information over their own radio networks had to either wait for power to be re-connected to pass information – which, in some cases, took several weeks - or wait for a tasked response asset (such as a volunteer Response Team or the NZDF) to visit the community.

**Recommendation #11:** To ensure ongoing connectivity with communities that often get isolated, alternate communication options should be explored and a suitable solution identified.

While some communities, like Tinui, had a Community Emergency Hub kit with a VHF radio, no one knew how to use it and it was not able to provide the required level of connectivity with council or the EOC. Upon exploring why the Tinui radio had not been used, it was revealed that it had been placed in the community during some Community Emergency Hub training several years before<sup>24</sup>. At the time, 15 or so members of the community had been present. Since then, the radio had been tested every year, but there had been no community training run for the past 2-3 years due to Covid-19. Of the original 15 community members who attended the training, only 3 or 4 remained in the community and none recalled how to use the radio.

**Recommendation #12:** When exploring alternate communications options, consideration should be given to the trained state of the individuals who are likely to be using it. If users are likely to have a higher trained state then options such as HF or VHF radio may be possible. However, if the trained state of users is expected to be low then more user-friendly options like satellite phone or satellite broadband (such as Starlink) should be considered.

Where phone systems - either due to power availability or the availability of landline phones which did not require power to operate – good use was made of them to establish connectivity between isolated communities and the EOC. Since he had lived in the Wairarapa for a while, the Wairarapa

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<sup>24</sup> Local residents thought it was “about 10 years ago” but WREMO records indicated it was done in 2018.

Welfare Manager had a good list of contacts in various communities that he could get information from. Various community members also reported they had the Wairarapa Welfare Manager's contact details and were able to contact them during the event. However, it was unclear whether this connectivity was transferable to other members of the EOC if the Welfare Manager was not available.

**Recommendation #13:** Clearly identified community points of contact for each community should be available to all staff in the EOC so they are not dependent on a single individual being in the EOC to have that connectivity.

In addition, the information collected by the Wairarapa Welfare Manager did not appear to be integrated into a wider intelligence picture of the impacts across the Wairarapa and deliberate targeting of intelligence gaps across the Wairarapa (eg where no information from a particular community was received) did not occur until later in the response. Initial response efforts appeared to be focussed more on where communication existed rather than where it did not. However, locations where communications did not exist tended to be more severely impacted.

**Recommendation #14:** At the start of any event, an intelligence collection plan should be established by the Intelligence function in the EOC. Information requirements should include the impacts of the event on the community. All information collected by EOC staff in relation to this information requirement should be shared with the intelligence function to provide holistic situational awareness and identify any gaps for tasking of response assets.

**Recommendation #15:** When communications are down, a concerted effort should be made by the EOC to prioritise intelligence collection in those areas where communications are down as they are likely to have been more severely impacted than areas where communications continue to function.

Privacy was cited as the main reason why community impact and welfare need information was not shared more widely within the EOC. However, this should not have been a barrier for the effective sharing of information. Indeed, various provisions exist for personal information to be shared in an emergency, including by disclosing non-identifying data<sup>25</sup>.

**Recommendation #16:** All EOC staff should be familiar with the ways in which personal information can be shared in an emergency event in a way that is appropriate.

**Recommendation #17:** All EOC systems and processes should allow the effective sharing of personal information in a manner that is consistent with the provisions of the CDEM Act 2002, the Privacy Act 2020 and the Civil Defence National Emergencies (Information Sharing) Code 2020.

While the introduction of FENZ FireMapper technology<sup>26</sup> to the response by the FENZ staff allowed for community impact data to be collected in a way that was mobile, able to operate in areas where communications were down, display information in on GIS maps in near real-time and do so in a way that maintained the integrity of personal information, this technology was only available to FENZ staff. It was not available to all response personnel (such as Response Teams and members or the NZDF), nor was it available for staff to use in the EOC unless a member of FENZ – who had access to the FENZ FireMapper system - was present.

The FENZ FireMapper system was also different to the ArcGIS Common Operating Picture (COP) that was introduced to the Hawkes Bay and the National Crisis Management Centre (NCMC) two weeks into the cyclone response. While the ArcGIS COP had similar functionality as FireMapper (they both provided a wide area assessment tool), the ArcGIS COP used the ArcGIS QuickCapture application to collect data in the field. This was similar technology to that which some councils in the region

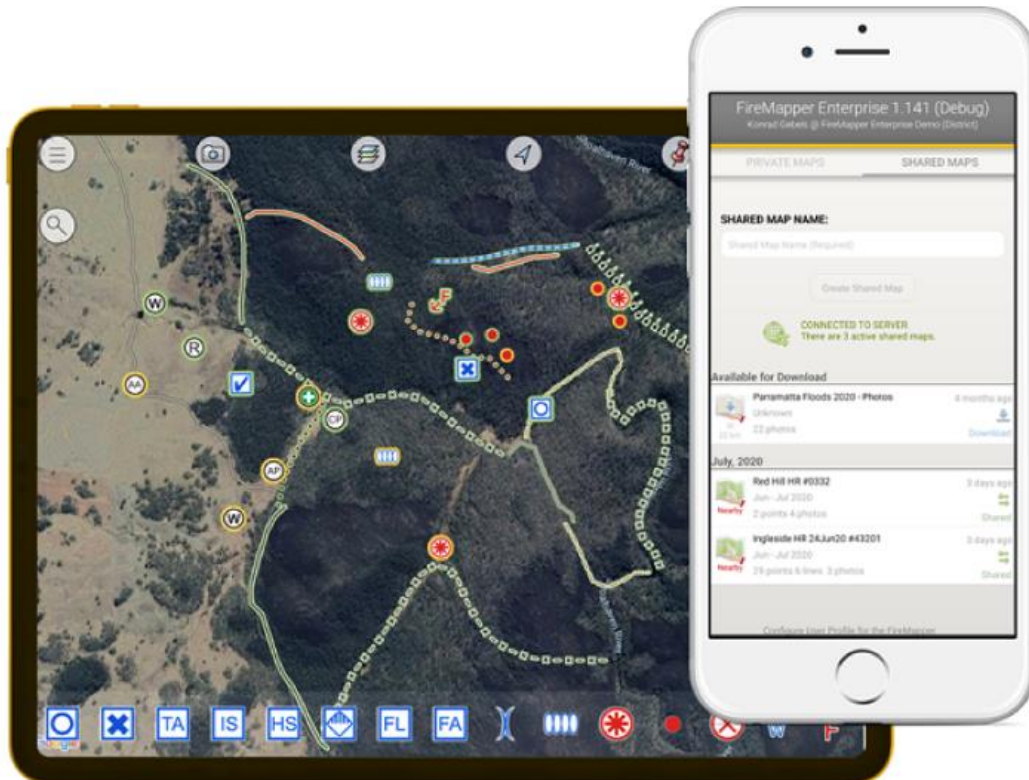
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<sup>25</sup> NEMA Data and Information Sharing to Support Emergency Response Fact Sheet February 2023.

<sup>26</sup> <https://www.fireandemergency.nz/businesses-and-landlords/forestry/firemapper-for-enterprise/>

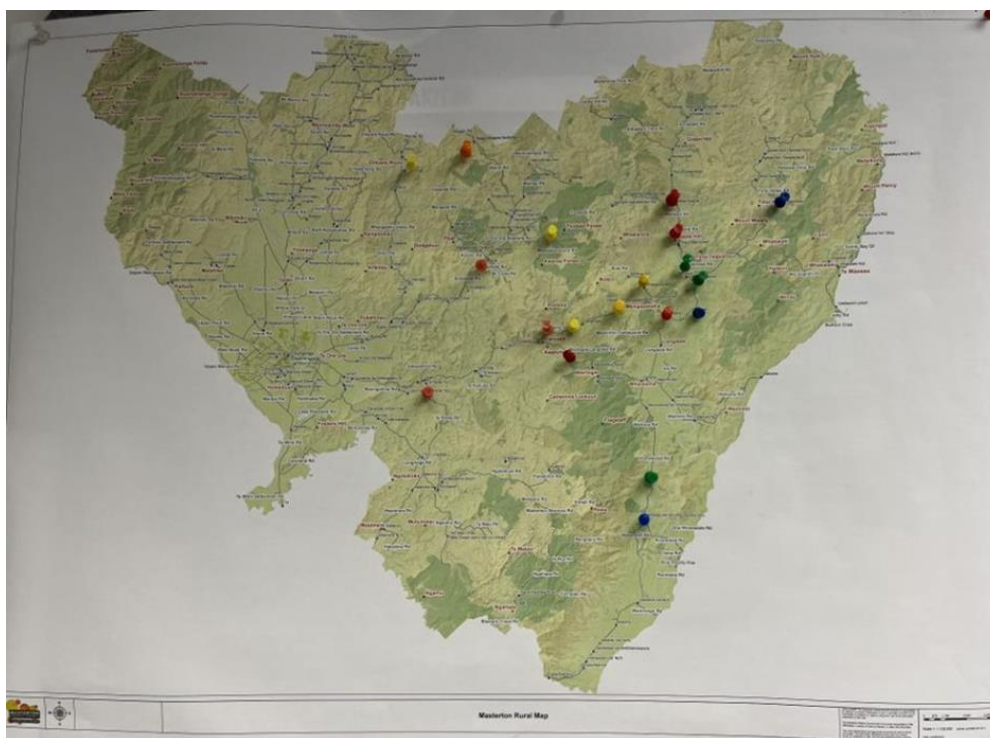


(Wellington City Council in particular) were already using. However, they were using ArcGIS Survey 123 application to collect data.



**Image 8: FENZ FireMapper technology**

Further compounding this issue was the fact that Response Team and NZDF personnel used paper forms to collect community impact and welfare needs information. Not only were EOC staff unable to process and make decisions on the information collected until it was returned to the EOC, but the EOC also had difficulty displaying this information geospatially even though it had access to GIS staff.



**Image 9: Wairarapa EOC Common Operating Picture (COP) Display**

As a result, not only was the EOC unable to integrate the various sources of information together effectively, but it was also unable to provide a common operating picture for the response – a single source of truth for all parties to refer to when making decisions. Various people who were involved in the response reported being frustrated by this.

If the three Wairarapa councils had the above collection and display functionality, all members of the CDEM Group who were involved in the response – those who had mobile phones at least, which is likely to be the majority – would have been able collect information in a timely and effective manner and be able to provide near real time situational awareness to decision-makers in the EOC. Impacted members of the public who had mobile phone connectivity, also, could potentially help provide improved situational awareness through crowd sourcing.

**Recommendation #18:** That WREMO work with FENZ and councils to provide Group members with a regionally consistent solution for mobile information collection and GIS display to provide improved COP functionality.

However, use of technology was not the only area where EOC staff experienced frustration during the response. Various staff felt there was insufficient desk and working space (eg white boards etc) to display information and work on problems collaboratively.



**Image 10: Wairarapa EOC Cyclone Response (Source: Masterton District Council)**

**Recommendation #19:** The EOC be large enough and suitably equipped for staff to perform the functions expected of them. This includes the ability to expand and contract in size according to the need of the event, both in response and transition to recovery.

In addition, questions were raised by some survey respondents about the suitability of some individuals who held key appointments during the response. Others expressed concern about their perceived neutrality and ability to look after the interests of all three council areas.

**Recommendation #20:** Staff holding key appointments need to be appropriately trained and experienced to perform the role expected of them. They should also be politically neutral and able to look after the interests of all three council areas. If they are not suitable or others are better suited, then training should be held to develop the required expertise or more suitable individuals should be put into these roles.

Relationships, also, were highlighted as an area where improvements needed to be made. Prior to the cyclone, the MDC Controller had little exposure to the CEs and Mayors of the three Wairarapa councils. He did not have good working relationship with them. It was only when the MDC CE instructed the Controller to meet regularly with the Mayors and CEs to tell them what was going on (the first of which occurred on Thursday 16 February, two days after the main impacts of the cyclone had been felt) that these relationships started improving.

However, what was unclear was whether this was the best option given each Mayor and CE already had a working relationship with their own local controller. If the MDC controller kept his counterparts apprised of developments, and it was agreed they would keep their own councils informed, they could potentially have kept their own Mayor and CE informed.

Interestingly, the Response Manager was known to the CEs and Mayors. This resulted in them taking a more active role in some of the proceedings of the 16 February meeting than some attendees felt was appropriate. On occasion, the views of the Response Manager differed from those of the Controller. The CEs and Mayors wanted to hear from the Controller, the individual leading the response, not the Response Manager.

What this particular feedback highlights is the importance of relationships and how all parties have a role to play in ensuring that lines of communication are clearly understood by all parties.

**Recommendation #21:** Before events occur, time needs to be spent developing key relationships to ensure that communication channels are open from the start and mutual trust and confidence is maintained throughout the response.

However, the fact these relationships had not been established before the cyclone meant that conversations had not been had around roles and responsibilities, and personal expectations. In a territorial authority where there is one council and one EOC, the Mayor is usually the primary spokesperson for the event, with the Controller providing operational information as and when required. However, on this occasion, no clear spokesperson for the Wairarapa appears to have been identified. Individual Mayors acted as spokespeople for their individual areas, but they were not well connected with what was going on in the EOC. As a result, the MDC Controller often ended up being the spokesperson for the event. Not only did this increase the Controller's workload unnecessarily, but it also resulted in disconnects between what the Controller was saying and what the three Mayors were saying.

**Recommendation #22:** Prior conversations around individual roles and responsibilities, and personal expectations, should be had between the Controller, Mayors and CEs before events occur. What is agreed upon should be tested in training and exercises to ensure everyone knows what is expected.

Also noted was the fact that, once the EOC activated on Tuesday 14 February, the MDC Primary Local Controller was the EOC Controller for the remainder of the week. Although another Controller covered the weekend of 18-19 February, no other local controllers assisted during the week. This placed a lot of pressure on the MDC Primary Local Controller.

In addition, when another controller took over for the weekend, the MDC Primary Local Controller did not rest during this period. Instead, they drove to various impacted communities to see things for themselves and attended at least one community meeting. This meant that not only was the MDC Primary Local Controller very stretched from an individual workload perspective during the week, but

they were not getting time to rest and re-charge either. Although there was no evidence to suggest there were adverse impacts during this particular event, these circumstances could have potentially had an adverse impact on the Local Controller's mental health, decision-making ability and/or their personal safety while they were driving if they were fatigued.

**Recommendation #23:** Shift rosters should be established by the Logistics function for all positions from the start of the response. All EOC staff, regardless of their position, should be given time to rest and should make a concerted effort to take that time to look after their own health, safety and mental wellbeing.

In addition, the rostering of staff over the weekend (on this occasion over the weekend of 18-19 February) also caused frustration. While there was work to be done, some council staff felt there was not enough work to warrant the number of staff who were rostered over the weekend. Concerns were also raised about how much of the staffing was for show when the Minister visited. While the visit from the Minister appeared to have been appreciated by those who were on duty on the day in question, working over the weekend did adversely impact a number of staff the following week. Some felt they were more tired than they needed to be (which adversely impacted their ability to do their business as usual jobs when they returned to work), some took some time off in lieu and at least one had to take sick leave because they were so exhausted.

**Recommendation #24:** Controllers, Response Managers and Logistics staff look critically at staffing levels for rosters to ensure that staffing levels are appropriate to the needs of the event. This includes the health, safety and wellbeing state of those being brought in. If workloads are reduced, and staff numbers can be reduced, then they should be to ensure that staff are not adversely impacted unnecessarily. If needs be, this includes informing VIPs who may be looking to visit of any changes and/or finding another time for such visits to occur.

In spite of the above-listed challenges that have been identified, and the improvements that have been suggested, various survey respondents indicated they felt that the response had gone quite well. Staff in both the SWDC and CDC IMT indicated they thought their IMT had worked quite well and members of the public in both districts who replied to the survey indicated they felt quite well supported. Although some confusion existed around why FENZ sent staff from Upper Hutt to help members of the Flat Point community when members of the Carterton Brigade were closer (a decision that was based on the need to keep the Carterton Brigade available for any other 111 calls for assistance that could occur over the period in question), this was essentially an internal FENZ communication issue rather than an issue between members of the CDEM Group so has not been explored any further.

Mixed feedback was received from staff who worked in the MDC EOC. While some EOC staff (those who appeared to have more limited emergency management training and experience) tended to think that the response had been well run, others (those who appeared to have higher levels of emergency management training and experience) said they felt there was significant room for improvement. What this suggested was that there were differing views on 'what good looks like' from staff who worked in the EOC.

**Recommendation #25:** A concerted effort should be made to get EOC staff trained to the highest level so they know what good looks like, can replicate it during an event and show others who are not so highly trained. Key appointments - such as Controller, Response Manager and Function Managers - should all be trained to the advanced level and well-practiced in applying the skills they have learned. If others in the EOC have higher levels of training or experience in particular functions (eg members of the emergency services or NZDF who come into the EOC in liaison roles) then every effort should be made to use their expertise to show others what good looks like so it can be replicated going forward.

Mixed feedback was also received from members of the public who reside in the Masterton district. While most felt well supported towards the end of the first week once lines of communication were opened up, external parties such as emergency services, NZDF and Response Teams were able to get in, and welfare support started arriving, the general consensus was that it took too long for these things to be set up. Since individual organisations were doing their own thing at the start and there



was no clear coordinating authority (Recommendation #1 refers), “no-one knew who was in charge” and things did not appear to be joined up. Very few members of the public - and in some instances government agency personnel - understood the role that the EOC was performing and its function was not well communicated by front-line responders.

**Recommendation #26:** Clear messaging about the response effort be shared with all response organisations to ensure all messaging is consistent and understood by the general public.

While various community members made specific mention of the great capability that the NZDF brought with its Unimog trucks and the “can-do attitude” of its personnel, concerns were also raised about the NZDF’s inability to do tasks in Tinui when they initially arrived because of a very narrow tasking order. Initially tasked to help out at the local school, but unable to gain access due to Ministry of Education limitations, NZDF personnel were unable to help clean out individual houses until such time as approval had been given by the EOC. This reportedly took at least half a day.



**Image 11: NZDF helping community members clean up (Source: Grace Prior/Wairarapa Times Age)**

**Recommendation #27:** NZDF and other response assets be given “in order to” or effects based taskings so they can pivot, if needs be, in impacted communities to meet the higher intent if the situation changes or they are unable to perform the task that has initially been given them.

Also suggested by some community members was that operational staff from the EOC or a response agency should have been inserted into impacted communities immediately after the cyclone had passed to coordinate response efforts. In Tinui, it was suggested that such an individual should have shown community members how to set up and run the Community Emergency Hub. What these comments suggested was a general lack of understanding among some community members about the role of Community Emergency Hubs. Specifically, that they are a place where community members can go to help each other in a major emergency when emergency services are likely to be stretched<sup>27</sup>.

<sup>27</sup> <https://wremo.nz/get-ready/community-ready/community-emergency-hubs/>

**Recommendation #28:** WREMO Community Emergency Hub training prioritise those communities that get impacted regularly to ensure community members understand how they can support each other until such time as official support arrives.

Also suggested was that the Community Emergency Hub guide that was provided was “too wordy” and did not account for when there were less people available than the number of roles to be filled. This was despite the kit having lanyards for each of the individual roles to be performed, a list of tasks for each individual on the back, and guidance on how roles should be assigned if there should be less people than roles<sup>28</sup>. While these comments by members of the public appeared to show some familiarity with the kit, they also suggested that some important information may not be as clear as it could be for community members who are trying to set up a Hub during an emergency.

**Recommendation #29:** WREMO review the content of the Community Emergency Hub kits to ensure that key information is clearly visible for community members who may not be very familiar with the content of the kit or trying to set up a Community Emergency Hub in times of stress during an emergency.

That said, once established, impacted community members did agree that Community Emergency Hubs provided a good central location for impacted residents to gather at (if they could reach it). It provided a location for people to share information about what was happening and share stories about what had happened, which helped manage stress from the event. In the case of Tinui, the Community Emergency Hub had wifi which allowed people to pass messages to other family members. Food was delivered to the hall and distributed from there. While there were different perspectives on how effective this was (some residents felt ready to eat food should have been provided for people who were helping clean up the community, others felt it should have been something more substantial that they could take home to cook, some felt it should have been distributed on a help yourself basis, others felt it should have been distributed according to individual need), the fact that food and other welfare items were delivered to the community and distributed among community members was very much appreciated.

**Recommendation #30:** To be effective, welfare support should meet the needs of the community. It can be determined by individual welfare registration and needs assessment processes or local community knowledge. It can be provided by official welfare support, community members self-organising or a combination of both.

Community members spoke very highly of the work that was done by the Rural Support Trust in particular, who they felt had good personal relationships with community members, a good understanding of their needs and the ability continue providing support to impacted communities long after the official response had wound up. Including them in the planning and conduct of the response was seen as a particular strength by members of the rural community.

**Recommendation #31:** For rural events, the Wairarapa EOC should include members of the Rural Support Trust in its emergency planning, response and recovery processes.

While the work that was done by responders in impacted communities, as a general rule, was appreciated by community members, it was noted by several community members that some of the responders who arrived were not well prepared for what they encountered. Some were not prepared for the high level of stress, shock and mental anguish that they found on arrival. Nor did they appear to have any contingency plan for dealing with tensions between competing community factions. More training in how to deal with such situations would have been beneficial.

**Recommendation #32:** Responder training include how to deal with traumatised individuals, the provision of psychosocial support and how to deal with tensions between competing community factions.

That said, visits by EOC staff and the Minister to impacted areas (Tinui in particular) was well received by community members as it gave them a chance to tell their story and ask questions. Although some

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<sup>28</sup> <https://wremo.nz/get-ready/community-ready/community-emergency-hubs/hub-guide/working-as-a-team/>

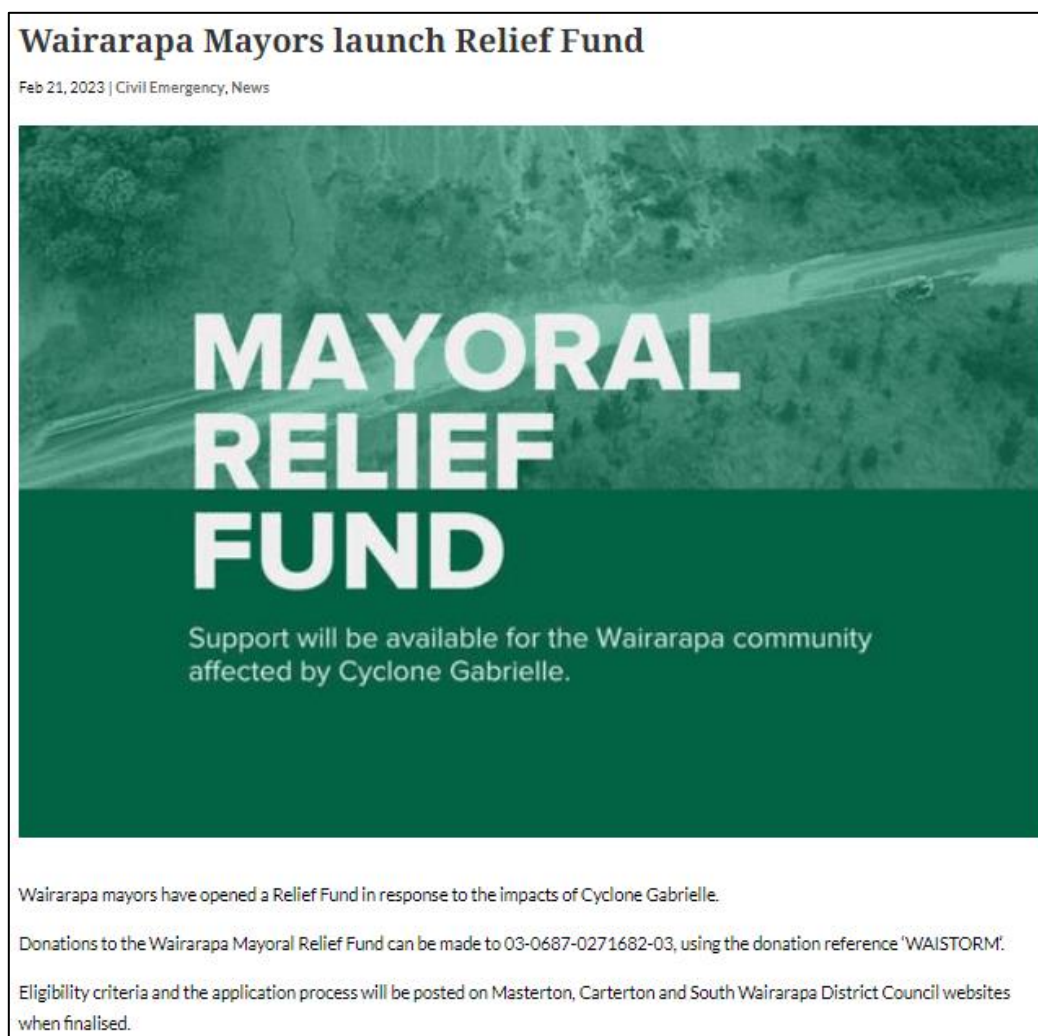
community members felt more recognition could have perhaps been given to those who had worked tirelessly to help their communities in their time of need, it was acknowledged by community members that being able to share their story with others was part of the healing process.

**Recommendation #33:** Visits by EOC staff and elected officials to impacted communities should be seen as part of the recovery process for community members to share their story, ask questions and have their efforts recognised.

On the afternoon of Monday 20 February, the EOC de-activated. Notifications were sent to all councils and other CDEM Group members when this occurred.

## Recovery Transition

Over the next two weeks, survey respondents reported mixed experiences with the transition from response to recovery. On the positive side, respondents indicated it was great to have each of the three Wairarapa councils identify a recovery manager to help oversee the recovery process. Support from WREMO recovery staff, to help set up the Wairarapa Recovery Office, was appreciated by council staff who were given the job of overseeing the recovery process. Community members, also, reported being appreciative of the announcement by the three Wairarapa Mayors on 21 February (the day after the EOC de-activated) that they would be launching a Mayoral Relief Fund to help provide support to impacted communities.



**Image 12: Public notification of the Mayoral Relief Fund launch (Source: Carterton District Council)**

However, various challenges were also highlighted. Most notable of these were the absence of recovery staff in the EOC during the response phase, the absence of a clear regional impact summary



document at the end of the response phase to understand what recovery work was actually required going forward, and the lack of clear national guidance on how Mayoral Relief Funds were supposed to operate.

**Recommendation #34:** Recovery staff should be in the EOC from the start of the response to understand the extent of the event impacts, help inform response decisions that could potentially impact recovery, and develop required recovery transition documentation.

**Recommendation #35:** At the end of the response phase a clear regional impact summary document should be completed to understand what recovery work is required going forward.

**Recommendation #36:** Lessons learned from previous events elsewhere in the country should be readily available to impacted Group members to draw upon, when required, either in the form of a national lessons learned data base or clear national policy guidance.

In addition, the lack of clarity from the national level about what structures, systems and processes would be used to oversee the national recovery process proved challenging. This confusion included the content of the meeting between the three Wairarapa councils and the Minister on 28 February when the Minister asked if they wanted to be part of the national recovery transition period. Initially intending not to be part of the national transition period because they had not declared a state of local emergency, been included in the national state of emergency or used any statutory CDEM powers, all three council changed their minds when the Minister suggested that by being part of the national transition period they could potentially be able to access more government funding than might otherwise be available. While there were other benefits to be gained from being at the recovery table with other impacted councils from around the country, which were summarised in a WREMO recovery planning presentation to councils on 3 March, no additional funding from being part of the national transition period was forthcoming.

**Recommendation #37:** National policy guidance on recovery be clear and well understood by those who are communicating it.

## Conclusion

While Cyclone Gabrielle was indeed an extreme event for the country, many of the impacts that were seen in the Wairarapa (flooding, landslides and community isolation) were less serious than what occurred elsewhere. However, the impacts that occurred in the Wairarapa had been seen previously. Not only did local residents recall seeing similar impacts during previous cyclones and severe weather events, but many had seen similar impacts during the previous twelve months. Some has seen similar impacts a month earlier during Cyclone Hale.

Initial warnings from the MetService were received a week before the cyclone struck. While there was some uncertainty around the path of cyclone up until the Friday beforehand (10 February), the fact the cyclone started impacting the top of the North Island first and then worked its way down the North Island meant that by the time it reached the Wairarapa there was some evidence to suggest that its impacts could potentially be serious.

Although various organisations were monitoring the cyclone as it approached and worked its way down the country, the Wairarapa EOC was not activated until the morning of 14 February - the day the cyclone struck. Different organisations (FENZ, Police and NZDF) were all doing their own assessments of the likely impacts and were deploying staff according to their individual assessments. The three Wairarapa councils (MDC, CDC and SWDC) were also monitoring the developing situation through their own IMTs. As a result, not only were there different assessments being made of the impact once the cyclone struck, but effective use was not made of the limited resources that were available in the Wairarapa to gain timely and accurate situational awareness immediately after the cyclone to inform effective decision-making about where to focus response efforts.

If better coordination arrangements and stronger relationships had been in place before the cyclone struck, then each member organisation would have been able to provide information to help develop



a common operating picture (a shared understanding of what could potentially occur and was occurring after the cyclone struck). Each member organisation would have been able to provide resources to understand the impacts of the cyclone and provide welfare support as part of a coordinated plan. If member organisation staff had been allocated roles in the EOC according to their skill sets (eg Police and/or FENZ representatives into the intelligence, operations or planning team) then a more coordinated response effort could have potentially been delivered sooner too.

If the above coordination arrangements had been put in place before the cyclone struck, in accordance with the procedures outlined in the SWDC, CDC, MDC and GWRC Concept of Operations document, not only would the transition between local council IMT and the EOC have occurred before communities were impacted, but it would have reduced the tension that existed between councils during the response. It would have ensured that the intelligence picture was for the whole Wairarapa, the response effort was similarly managed, Mayors and CEs were better informed, and public information was better managed and more aligned.

However, having the right people in the room with the right skills sets was not the only area identified for improvement. Creating the right environment in the EOC was another area that was identified. The physical size of the facility (the ability to expand and contract as needs be), the layout (appropriate space and white boards) and its inclusiveness (the extent to which people were made to feel welcome) were all specifically mentioned. Effective use of information technology (GIS technologies in particular) was also mentioned, as well as investment in key relationships (those between Local Controllers and Mayors and CEs in particular were specifically identified as areas that required more investment before events occurred).

During responses, EOC staffing levels should be appropriate to the needs of the event. If the tempo is high, then shifts should be better resourced. If the tempo is low, then rosters should be reduced to give staff time to rest and look after their own health, safety and mental wellbeing. This adjustment should occur when other parties, including VIPs, want to visit. While visits by such individuals can be good for staff wellbeing when they recognise the efforts of staff during difficult times, the value of such recognition should also be weighed up against the alternative option of staff not being called into the EOC on the day in question if they are not actually required to perform tasks and appropriate recognition being given at another time.

When EOC staff are tasking response assets, taskings should be sufficiently flexible to meet changing circumstances on the ground. Public messaging should be shared with response assets (such as Response Team and NZDF elements) to ensure that consistent messages are being communicated and impacted communities know what is going on. Responding teams should also be trained in such subjects as mental health, psychological first aid and conflict resolution.

Emergency preparedness training should also be done with communities before events occur. Refresher sessions should be done sufficiently frequently that community members remember what the training is about and communities that are more likely to be impacted should be prioritised in the training program. Equipment that is to be used by communities should be fit for purpose and within the capability of the impacted community to use it after an emergency event.

During the response phase of emergency events, recovery staff should be involved from the outset to understand what is going on, inform response decision-making and produce required transition documentation before recovery transition occurs. This includes plans of how the recovery effort is going to be run and staffed going forward, once the response effort comes to a close.

While some may say the above-listed improvements should be the minimum level of service delivered by members of the Wellington CDEM group during any emergency response, the fact that SWDC, CDC and MDC all asked for an external assessment of their response efforts to be carried out shows a willingness by all three councils to see this event as a learning opportunity and a chance to make improvements to how they manage future emergency events. It also acknowledges that partner and community expectations can change over time, and it is important to understand the expectations of both if they are to be effectively met going forward.

## Recommendations Summary

No.	Recommendation
1.	All three Wairarapa councils establish appropriate <b>coordination arrangements</b> in accordance with the agreed concept of operations to ensure a common level of situational awareness to inform effective decision-making and effective use of limited resources. This could be done virtually or physically by activating the EOC.
2.	All EOC reports use correct <b>Coordinated Incident Management System (CIMS)</b> terminology in status reporting.
3.	Local controllers from the three Wairarapa councils follow the agreed <b>activation procedures</b> outlined in the agreed concept of operations.
4.	Council Management Team <b>terminology</b> – IMT or CMT - be consistent with what is in the agreed concept of operations.
5.	To ensure that the Wairarapa EOC functions effectively and provides the required level of service across the whole Wairarapa, local controllers adhere to the three <b>initial response objectives</b> of situational awareness (to inform an effective response), safety of the public and responders, and public messaging across the whole Wairarapa.
6.	Upon activation, the Wairarapa EOC establish a centralised <b>intelligence function</b> to assess the expected impacts of the event for the whole Wairarapa before it happens and develop and implement an intelligence collection plan to confirm or negate those impacts during and after the event has happened.
7.	<b>Planning and Operations functions</b> of the EOC use the assessment that is provided by the Intelligence function in Recommendation #6 to inform the pre-positioning of appropriate resources to provide good situational awareness, connectivity with the EOC and understanding of what support (if any) each community needs.
8.	<b>Liaison staff</b> from partner organisations (such as emergency services, lifelines and welfare organisations) should be involved in the activation of the EOC from the outset.
9.	Staff from all relevant <b>council functions</b> (including Māori Liaison) should be involved in the activation of the council IMT and EOC from the outset.
10.	Māori play an important role in emergency management and should be included in proceedings from the outset. To do this, council staff need to ensure that the <b>EOC environment</b> is welcoming and inclusive.
11.	To ensure ongoing connectivity with communities that often get isolated, <b>alternate communication options</b> should be explored and a suitable solution identified.
12.	When exploring alternate communications options, consideration should be given to the <b>trained state</b> of the individuals who are likely to be using it. If users are likely to have a higher trained state, then options such as HF or VHF radio may be possible. However, if the trained state of users is expected to be low then more user-friendly options like satellite phone or Starlink should be considered.
13.	Clearly identified <b>community points of contact</b> for each community should be available to all staff in the EOC so they are not dependent on a single individual being in the EOC to have that connectivity.
14.	At the start of any event, an <b>intelligence collection plan</b> should be established by the Intelligence function in the EOC. Information requirements should include the impacts of the event on the community. All information collected by EOC staff in relation to this information requirement should be shared with the intelligence function to provide holistic situational awareness and identify any gaps for tasking of response assets
15.	When communications are down, a concerted effort should be made by the EOC to prioritise <b>intelligence collection</b> in those areas where communications are down as they are likely to have been more severely impacted than areas where communications continue to function.
16.	All EOC staff should be familiar with the ways in which <b>personal information</b> can be shared in an emergency event in a way that is appropriate.


17.	All <b>EOC systems and processes</b> should allow the effective sharing of personal information in a manner that is consistent with the provisions of the CDEM Act 2002, the Privacy Act 2020 and the Civil Defence National Emergencies (Information Sharing) Code 2020.
18.	That WREMO work with FENZ and councils to provide Group members with a regionally consistent solution for mobile information collection and GIS display to provide improved <b>COP</b> functionality.
19.	The <b>EOC</b> be large enough and suitably equipped for staff to perform the functions expected of them. This includes the ability to expand and contract in size according to the need of the event, both in response and transition to recovery.
20.	<b>Staff</b> holding key appointments need to be appropriately trained and experienced to perform the role expected of them. They should also be politically neutral and able to look after the interests of all three council areas. If they are not suitable or others are better suited, then training should be held to develop the require expertise or more suitable individuals should be put into these roles.
21.	Before events occur, time needs to be spent developing key <b>relationships</b> to ensure that communication channels are open from the start and mutual trust and confidence is maintained throughout the response.
22.	Prior conversations around individual <b>roles and responsibilities</b> , and personal expectations, should be had between the Controller, Mayors and CEs before events occur. What is agreed upon should be tested in training and exercises to ensure everyone knows what is expected.
23.	<b>Shift rosters</b> should be established by the Logistics function for all positions from the start of the response. All EOC staff, regardless of their position, should be given time to rest and should make a concerted effort to take that time to look after their own health, safety and mental wellbeing.
24.	Controllers, Response Managers and Logistics staff look critically at <b>staffing levels</b> for rosters to ensure that staffing levels are appropriate to the needs of the event. This includes the health, safety and wellbeing state of those being brought in. If workloads are reduced, and staff numbers can be reduced, then they should be to ensure that staff are not adversely impacted unnecessarily. If needs be, this includes informing VIPs who may be looking to visit of any changes and/or finding another time for such visits to occur.
25.	A concerted effort should be made to get <b>EOC staff</b> trained to the highest level so they know what good looks like, can replicate it during an event and show others who are not so highly trained. Key appointments - such as Controller, Response Manager and Function Managers – should all be trained to the advanced level and well-practiced in applying the skills they have learned. If others in the EOC have higher levels of training or experience in particular functions (eg members of the emergency services or NZDF who come into the EOC in liaison roles) then every effort should be made to use their expertise to show others what good looks like so it can be replicated going forward.
26.	Clear <b>messaging</b> about the response effort be shared with all response organisations to ensure all messaging is consistent and understood by the general public.
27.	NZDF and other response assets be given “in order to” or effects based <b>taskings</b> so they can pivot, if needs be, in impacted communities to meet the higher intent if the situation changes or they are unable to perform the task that has initially been given them.
28.	<b>Community Emergency Hub training</b> prioritise those communities that get impacted regularly to ensure community members understand how they can support each other until such time as official support arrives.
29.	WREMO review the content of the <b>Community Emergency Hub kits</b> to ensure that key information is clearly visible for community members who may not be very familiar with the content of the kit or trying to set up a Community Emergency Hub in times of stress during an emergency.

30.	To be effective, <b>welfare support</b> should meet the needs of the community. It can be determined by individual welfare registration and needs assessment processes or local community knowledge. It can be provided by official welfare support, community members self-organising or a combination of both.
31.	For <b>rural events</b> , the Wairarapa EOC should include members of the Rural Support Trust in its emergency planning, response and recovery processes.
32.	<b>Responder training</b> include how to deal with traumatised individuals, the provision of psychosocial support and how to deal with tensions between competing community factions.
33.	<b>Visits</b> by EOC staff and elected officials to impacted communities should be seen as part of the recovery process for community members to share their story, ask questions and have their efforts recognised.
34.	<b>Recovery staff</b> should be in the EOC from the start of the response to understand the extent of the event impacts, help inform response decisions that could potentially impact recovery, and develop required recovery transition documentation.
35.	At the end of the response phase a clear regional <b>impact summary</b> document should be completed to understand what recovery work is required going forward.
36.	<b>Lessons learned</b> from previous events elsewhere in the country should be readily available to impacted Group members to draw upon, when required, either in the form of a national lessons learned data base or clear national policy guidance.
37.	<b>National policy guidance</b> on recovery be clear and well understood by those who are communicating it.



## Annex A: Cyclone Gabrielle – Predicted Track (as at 07:00am 12 February 2023)

Source: <https://twitter.com/MetService/status/1624488738029211648>



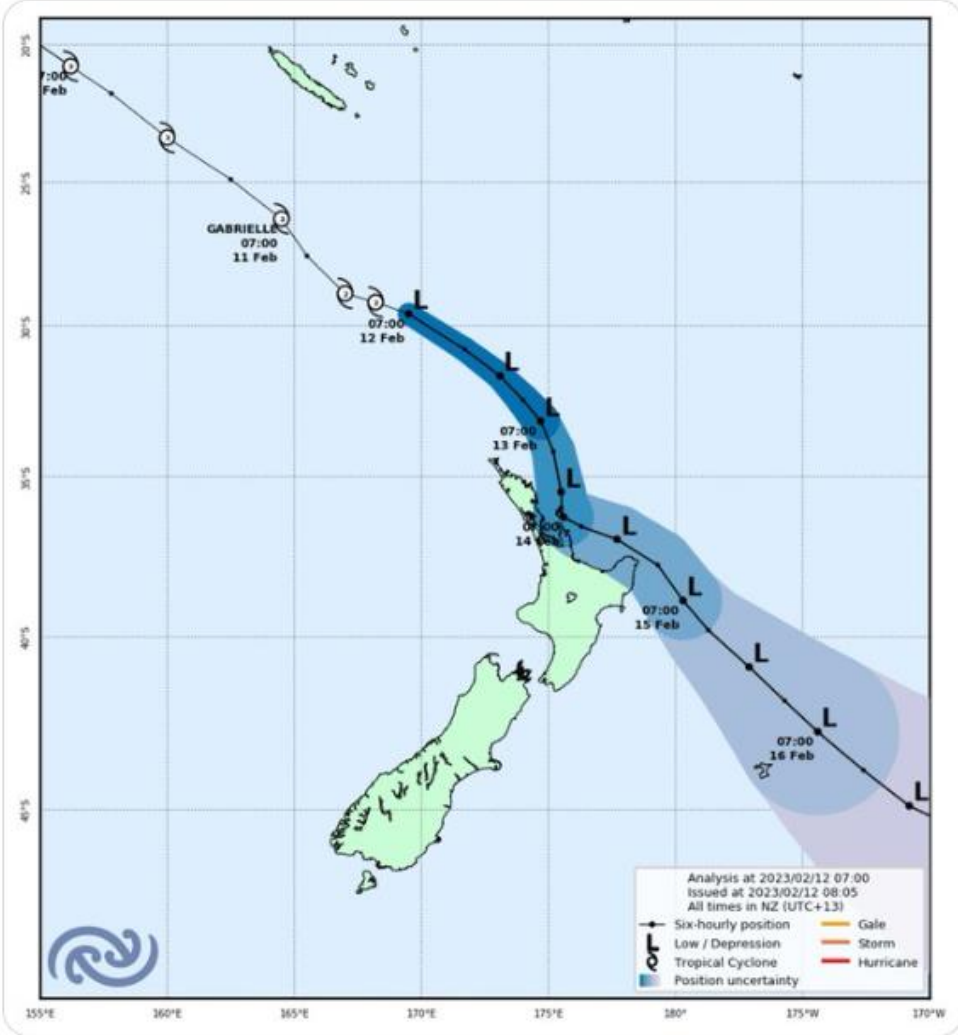
MetService  
@MetService

### Latest #CycloneGabrielle track map

Gabrielle has lost its tropical characteristics, this doesn't mean it is weaker!

It will be a very intense system as it moves closer to our shores in the coming days

Widespread severe weather is forecast with the worst expected on Mon/Tuesday



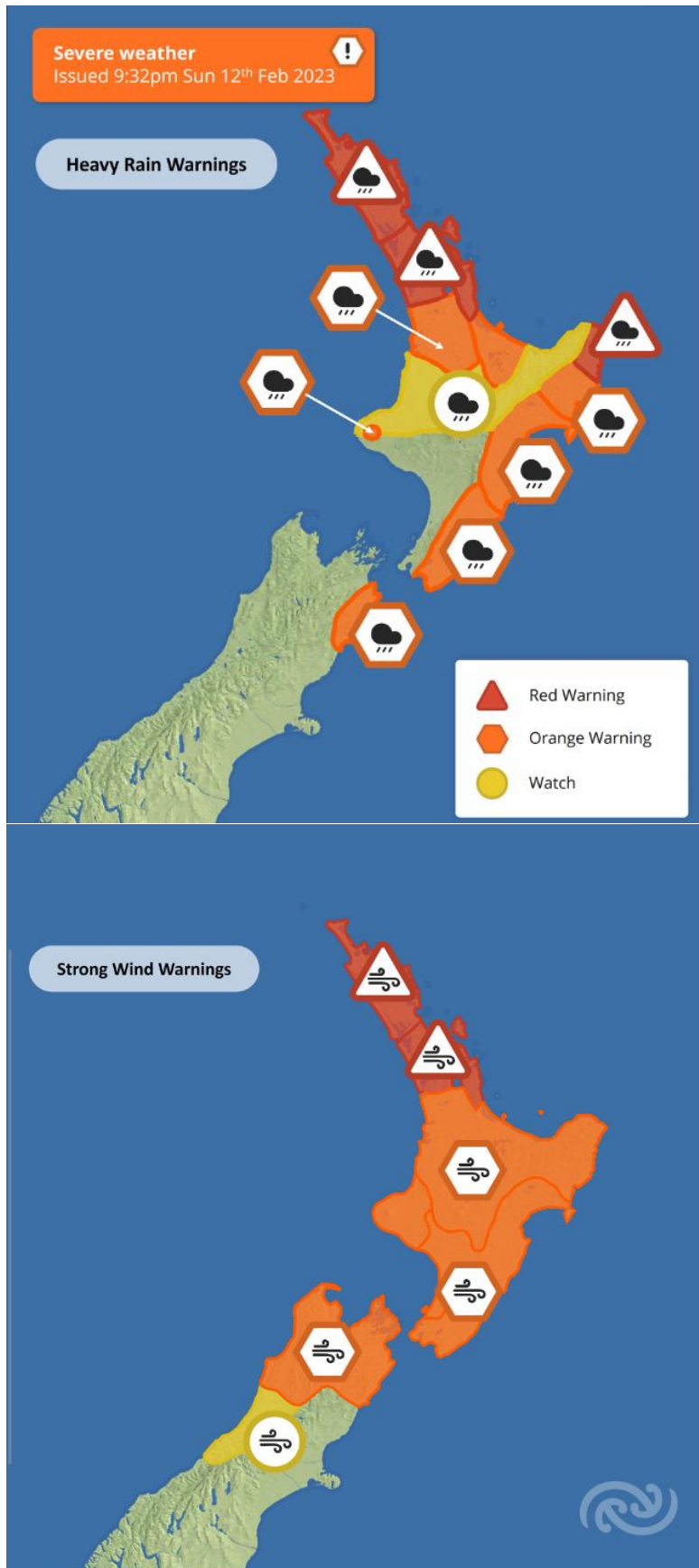
Analysis at 2023/02/12 07:00  
Issued at 2023/02/12 08:05  
All times in NZ (UTC+13)

- Six-hourly position
- Low / Depression
- Tropical Cyclone
- Position uncertainty
- Gale
- Storm
- Hurricane

8:21 AM · Feb 12, 2023 · 101.4K Views

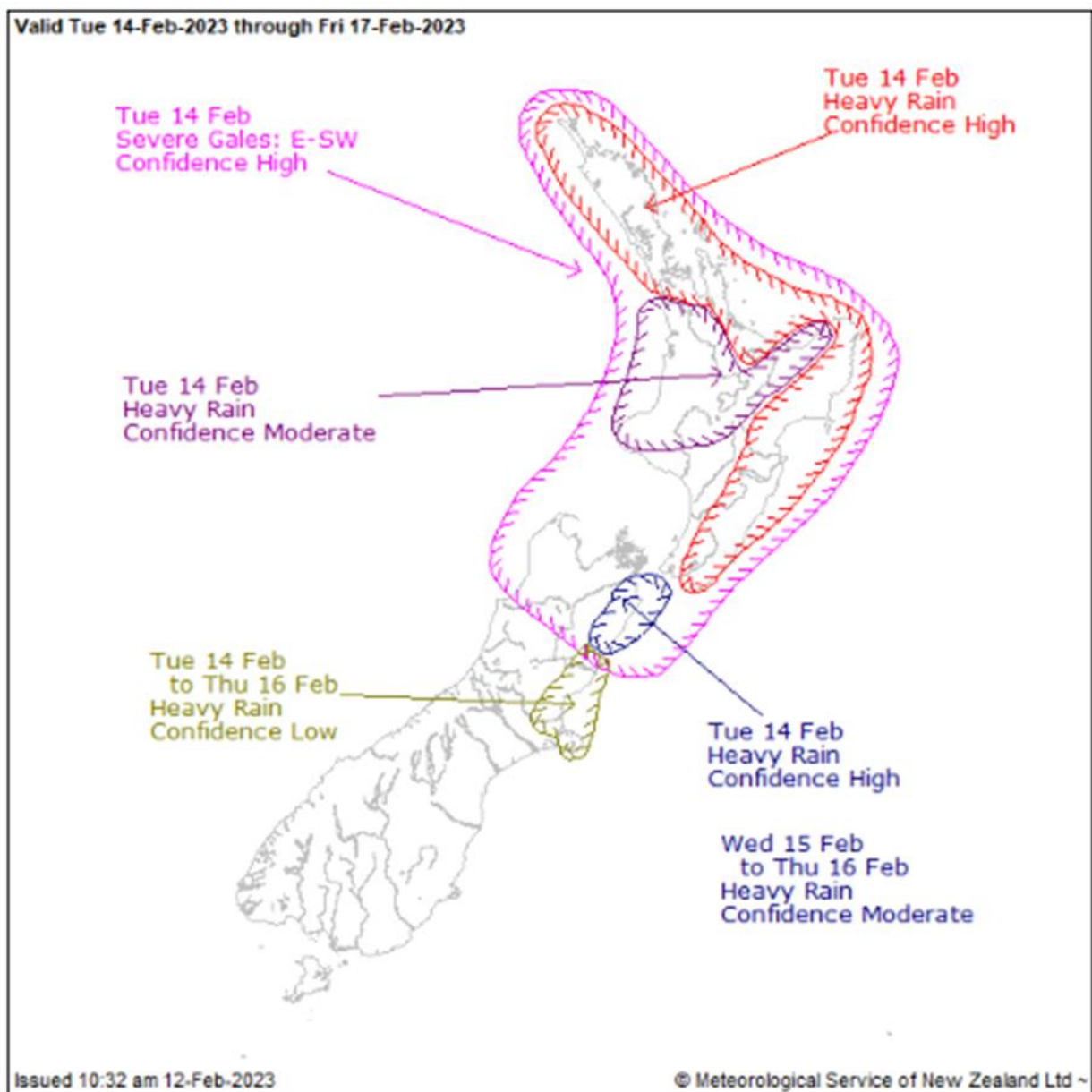
Annex B: Cyclone Gabrielle – Weather Warnings (as at 09:32am Sunday 12 February 2023)

Source: <https://twitter.com/MetService/status/1624693328607576065/photo/1>



Annex C: Cyclone Gabrielle – Rain and Wind Outlook (as at 10:32am Sunday 12 February 2023)

Source: MetService



Annex D: Cyclone Gabrielle – Wave Forecast (as at 11:40am Monday 13 February 2023)

Source: <https://twitter.com/MetService/status/1624901365830123525>

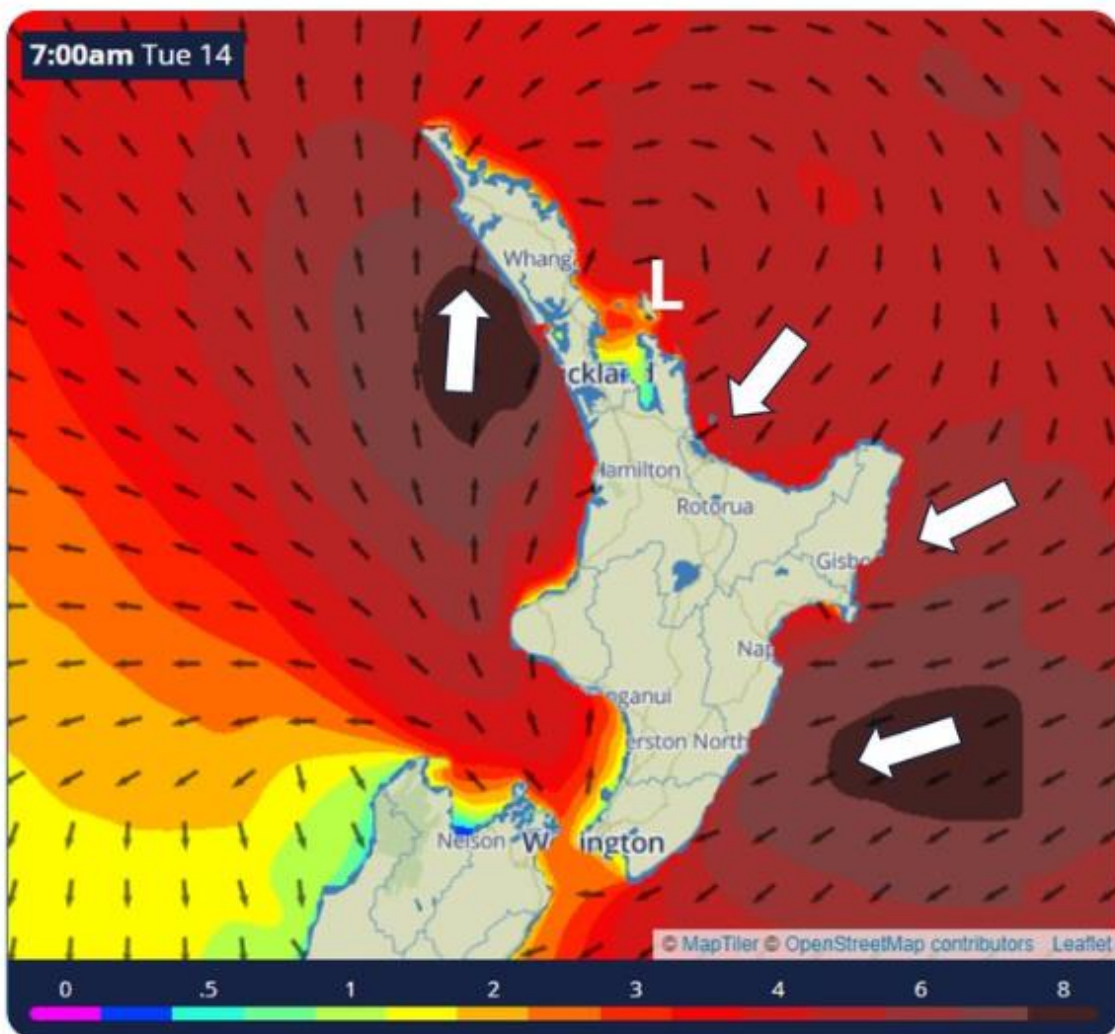
← Tweet



MetService   
@MetService



Cyclone Gabrielle is forecast to bring large waves to some coasts for the next few days. Check out the significant wave height forecast for NZ here [bit.ly/WaveHeight](https://bit.ly/WaveHeight) ^PL



11:40 AM · Feb 13, 2023 · 25.9K Views



## **Annex E: Cyclone Gabrielle – Rain and Wind Impacts by Region**

Source: <https://blog.metservice.com/TropicalCycloneGabrielleSummary>

Many parts of the country were hit hard by this extreme weather event. Below are some numbers illustrating just how much rain and wind was experienced across the North Island and the top of the South Island (from 12am Sunday 12 February to 7am Wednesday 15 February):

### **Northland:**

250-400 mm of rain was recorded across the region with the largest amount recorded at Glenbervie Forest (408.7mm). Whangārei Airport received 320.4mm. Wind gusts over 130 km/h were recorded in the most exposed stations with 141 km/h recorded at Cape Reinga. Whangārei Airport recorded a gust of 102 km/h.

### **Auckland:**

Over 200 mm of rain was recorded around the region with Waitakere recording the most (248mm). Wind gusts of up to 130-150 km/h were recorded at the most exposed sites. Auckland Harbour Bridge recorded 115 km/h and the airport recorded 78 km/h.

### **Coromandel Peninsula:**

The Pinnacles station in the ranges recorded 447mm of rain and other elevated stations received 220-270 mm. Whitianga recorded 170.6 mm. Golden Valley (near Waihi) experienced wind gusts of up to 109 km/h.

### **Bay of Plenty:**

The highest rainfall recorded in the region was at Queenshead (163.5mm). Tauranga recorded 122.7 mm, Rotorua 86.1 mm, Whakatāne 82.8 mm, and Te Puke 78.6 mm. Wind gusts recorded in the area were between 80-90 km/h.

### **Tairāwhiti / Gisborne:**

The largest rainfall accumulation was recorded in Hikuwai where 488 mm of rain fell. Several other stations (mainly in the ranges) recorded over 400 mm. Gisborne Airport received 185.3 mm (although due to power cuts, it stopped recording after 2am Tuesday). Wind gusts were recorded across the region up to 93 km/h.

### **Hawke's Bay:**

Glengarry received nearly 540mm, and Pukeorapa receiving over 400mm of rain. Napier Airport recorded 203.8 mm and Hastings recorded 143.8 mm. Wind gusts were recorded up to 90 km/h with exposed stations near the coast reaching higher such as Cape Kidnappers (131 km/h).

### **Wairarapa:**

The most rainfall was recorded at elevated stations in the ranges, between 180-280 mm. Masterton Airport received 62 mm. Exposed stations near the coast recorded high wind gusts - Cape Turnagain recorded 146 km/h and Castlepoint recorded 113 km/h.

### **Taranaki:**

Rainfall was moderate with 30-45 mm recorded across the region, but the wind was very strong - New Plymouth Airport recorded gusts of up to 128 km/h.

**Whanganui:**

Rainfall of 60-90 mm was recorded around the region and gusts of 98 km/h were experienced at Whanganui Airport.

**Wellington:**

Highest accumulations were recorded in northern and eastern parts of the Hutt Valley (100-160 mm). Mt Kaukau (an elevated site) recorded the highest gust of 146 km/h, around the city gusts of up to 100 km/h were experienced.

**Marlborough:**

Snowflake Ridge (a very elevated site) recorded 230 mm of rain. Other stations around the region recorded up to 100-130 mm. Kaikoura received 59.8 mm and Picton received 59.5 mm. Cape Campbell recorded wind gusts of up to 93 km/hr and Kaikoura recorded 65 km/h.

## Annex F: Cyclone Gabrielle – Readiness, Response and Recovery Transition Timeline

Date	Activity
Monday 6 February (0800hrs)	MetService assesses that is a moderate risk that a tropical low in the Coral Sea would develop into a named cyclone on Wednesday 8 February. Some models show the system moving towards northern Aotearoa New Zealand over the weekend. Wairarapa councils started monitoring the situation through their individual arrangements.
Wednesday 8 February (0800hrs)	MetService assesses the system could possibly turn towards the upper North Island on Monday 13 February.
Friday 10 February (0800hrs)	MetService assesses a moderate degree of confidence that warning amounts of rainfall could impact the Wairarapa and a high degree of confidence that severe gales could impact the wider region.
Friday 10 February (1230hrs)	Regional teleconference convened by Group Controller. Wairarapa council attend. Public messaging shared and disseminated afterwards.
Friday 10 February (1720hrs)	Update from Wairarapa Emergency Management Advisor indicates: Emergency Assistance Centres (EACs) have been identified in the Wairarapa's five main townships, and could be stood up if necessary; sandbag support is being managed by individual councils; and meetings were held with emergency services regarding capacity and capability.
Saturday 11 February (0800hrs)	MetService issues severe weather watches for the region. Shared via regional PIM network.
Sunday 12 February (0800hrs)	MetService escalates severe weather watches to orange severe weather warnings. Shared via regional PIM network
Monday 13 February (0800hrs)	MetService weather update includes large waves of 5-7+ metres
Monday 13 February (1030hrs)	Regional teleconference convened by Group Controller. Wairarapa council attend and provide local situation updates
Monday 13 February (1222hrs)	Updated public messaging shared with the regional PIM network for further dissemination via their own networks.
Monday 13 February (1645hrs)	Regional SITREP #001 reports that emergency services (Police, FENZ and Wellington Free Ambulance) have been liaising with local councils and partner agencies, pre-positioning resources across the region and monitoring the weather situation closely.
Tuesday 14 February (0700hrs)	After consultation with councils, regional SITREP #002 reports initial impacts on the Wairarapa appear to be minimal.
Tuesday 14 February (1030hrs)	In regional teleconference GWRC Flood Protection Team report they are seeing heavy

	rain in places across the region and are expecting water levels to continue to rise into the afternoon. FENZ report they have received no wind or rain related calls overnight. However, Powerco indicate they had a couple of outages East of Masterton. SWDC indicate Tora has been without power since 4:30am. CDC indicate they were checking on the community at Flatpoint. MDC indicate Tinui and Castlepoint are cut off, they are considering whether they should declare a state of local emergency, and are activating the EOC. MDC Local Controller assumes that the other council representatives on the call will inform their relevant Chief Executives and Mayors.
Tuesday 14 February (1130hrs)	Wairarapa EOC is activated. Tension exists between the three Wairarapa councils over the decision to activate the EOC.
Wednesday 15 February	Upper Hutt Community Rescue, NZDF and other responders deploy into impacted communities.
Thursday 16 February	Local Controller, Response Manager and FENZ meet with Wairarapa Mayors and CEs to update them on the situation.
Friday 17 February	Second update given to Wairarapa Mayors and CEs.
Saturday 18 February – Sunday 19 February	Minister visits EOC. EOC staff and the Minister visit impacted communities and attend Tinui community meeting.
Monday 20 February (1700hrs)	EOC is de-activated.
Tuesday 21 February	Recovery phase starts. Wairarapa Mayors announce the launch of a Cyclone Gabrielle Mayoral Relief Fund.
Tuesday 28 February	Recovery meeting between councils and the Minister regarding whether they want to be part of the national recovery transition period.
Tuesday 7 March	Masterton, Carterton and Wairarapa Districts are included in the national recovery transition period for Cyclone Gabrielle.



## **Annex G: Cyclone Gabrielle Wairarapa Response After Action Review – Timeline and Activities**

<b>Phase 1</b> (17-21 April):	<b>Survey design and issue</b> – The design and issue of an appropriate survey form to capture people’s initial thoughts on what occurred
<b>Phase 2</b> (21 Apr-19 May):	<b>Survey collection</b> <sup>29</sup> – Collection of the information provided by respondents
<b>Phase 3</b> (19 May – 16 June):	<b>Survey collation</b> – Collation of the information provided by Respondents
<b>Phase 4</b> (16 June – 14 July):	<b>Interviews</b> <sup>30</sup> – Interviews of respondents and individuals who may be able to provide useful information for the review
<b>Phase 5</b> (14 July – 28 July):	<b>Analysis</b> – Analysis of information provided
<b>Phase 6</b> (28 July – 8 September):	<b>Production</b> <sup>31</sup> – Drafting of the initial findings
<b>Phase 7</b> (25 September):	<b>Dissemination</b> – Dissemination of the first draft of the review
<b>Phase 8</b> (2 October):	<b>Respondent feedback</b> – The collection of feedback on the first draft from respondents
<b>Phase 9</b> (6 October):	<b>Amendments and issuing of the second draft of the review</b>
<b>Phase 10</b> (13 October):	<b>Respondent feedback</b> – The collection of feedback on the second draft from respondents
<b>Phase 11</b> (18 October):	<b>Amendments and issuing of the final report</b>

In total, 35 submissions were received through the online survey form. Responses were received from staff in all four councils (MDC, CDC, SWDC and GWRC), residents from all three district council areas (MDC, CDC and SWDC), impacted community members, local iwi, emergency services (FENZ, Police and Wellington Free Ambulance), and other non-government organisations who provided welfare support during the response.

One submission was received through the mail. 13 people were interviewed. 3 of these were people who did not complete the survey form, but the reviewer thought they should be interviewed.

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<sup>29</sup> Initially scheduled for 21 April – 5 May, the window for survey completion was extended on 2 May to 19 May to provide sufficient time for more remote communities that were impacted to be informed that the review was going on and make submissions.

<sup>30</sup> Initially scheduled for 26 May – 9 June, the window for interviews was then extended to 14 July to allow sufficient time for interviews to be done with members of some of the remote communities that were impacted.

<sup>31</sup> On 8 September it was decided by Wairarapa Council Chief Executives that the first draft of the report should not be disseminated until the new MDC CE starts in the role on 25 September.

## Annex H: Survey Respondent Overview

