

Waitai Coastal-Burwood-Linwood Community Board

Information Session/Workshop

MINUTES ATTACHMENTS

Date:Monday 12 May 2025

Time:3.30 pm

Venue:Boardroom, Corner Beresford and Union Streets,
New Brighton

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Tsunami risk update

Briefing for the Waitai Coastal-Burwood-
Linwood Community Board Members
Monday 12 May 2025



Christchurch Civil Defence
Emergency Management

Christchurch
City Council 

Tsunami – what is it?

1

A tsunami is a series of powerful waves caused when large volumes of water are displaced suddenly. They are fast and incredibly destructive.

2

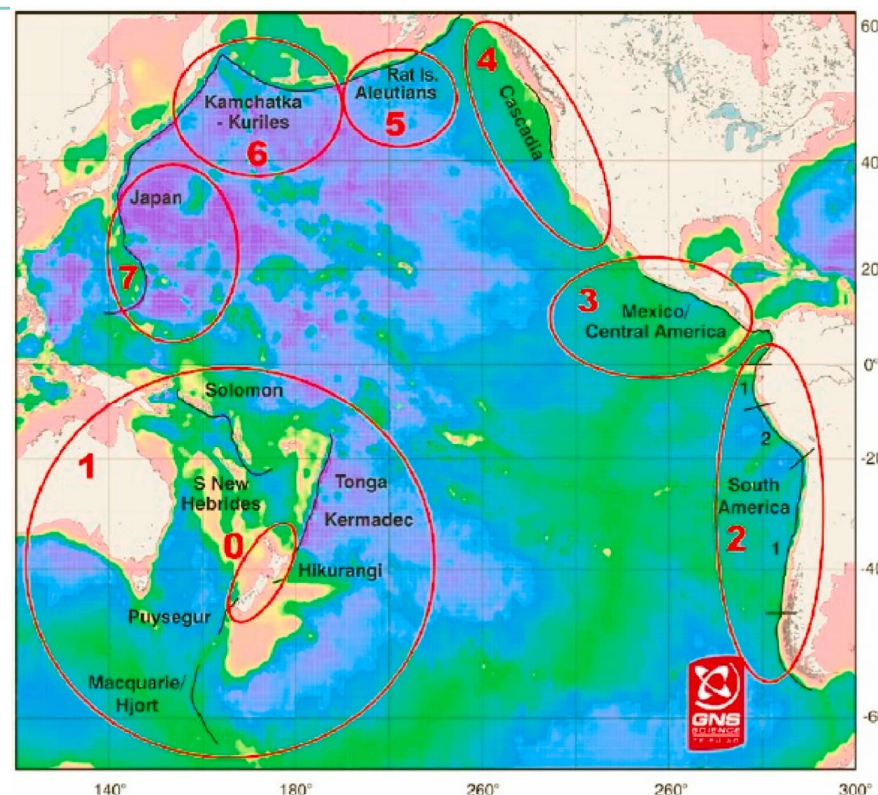
Even relatively small tsunamis can cause strong, unpredictable and dangerous currents and surges around the coast.

3

Tsunami waves have very long wavelengths (the distance between successive waves) which can be from several kilometres to over 400km.

Christchurch tsunami vulnerability

- Located on the Pacific Ring of Fire.
- Christchurch and Banks Peninsula have approx 65k residents in our evacuation zones.
- Our impacted Wards:
 - Coastal
 - Burwood
 - Linwood
 - Heathcote
 - Banks Peninsula



Tsunami Evacuation Zones



- Current tsunami evacuation zones determined in 2019/20.
- Tsunami evacuation zones do not account for sea level rise, storm surges, or coastal changes.
- Evacuation zones are changing. on next slide.

Tsunami Evacuation Zones Review

- NEMA and GNS Science conducted a national review into the tsunami evacuation zones and found they can cause confusion and could be simplified.
- NEMA is finalising the Tsunami Evacuation Zone Guidelines to provide a new nationally consistent approach to the tsunami evacuation zones.
 - Change to one single zone for the entire country, with a compliance date of 2030.
- The Council will update our zones with the rest of the region. This will likely take place in mid-2026.
- Communications, marketing and a range of other initiatives are being planned to embed the changes to the evacuation zone.

Tsunami Evacuation Zones Review

The change to the evacuation zones is good for Christchurch and the country.

- Either - you're in an evacuation zone or you're not.
- Nationally and regionally consistent.
- Simplifies pre-and-during event communications.

Local Tsunami Planning Ecosystem

- “The Tsunami Plan” is multiple *smaller* plans or “parts”.



Part A – Initial
Response Actions



Part B – Response
Arrangements



Part C – Detailed Task
Checklists



Part D – Tsunami Hazard
Overview



Evacuation Plan – New
Zealand Police

- Plans can be read individually or as a complete document.
- Primary focus on our initial response “to save lives.”
 - Sustained response and recovery plans will be developed in the future.

Building community resilience

The Council's Community and CDEM teams are partnering with coastal community groups, delivering education sessions, workshops, supporting development of their response plans and establishing response hubs.

- Minimising the risk to loss of life.
- Building stronger communities.
- We are planning for this workload to increase.
- Care taken with vulnerable or overloaded communities.
- Weaving The East.



Public Education July 2022 – March 2025

Waitai:

- 69 sessions
- 105 hours
- 3,125 attendees

Te Pātaka o Rākaihautū:

- 53 sessions
- 113 hours
- 1,666 attendees

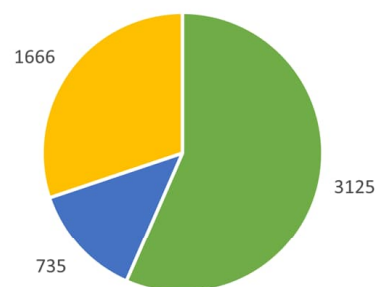
Waihorō:

- 37 sessions
- 51.5 hours
- 735 attendees

Total:

- 159 sessions
- 269.5 hours
- 5,526 attendees

Number of attendees



Community Response Plans

July 2022 – March 2025

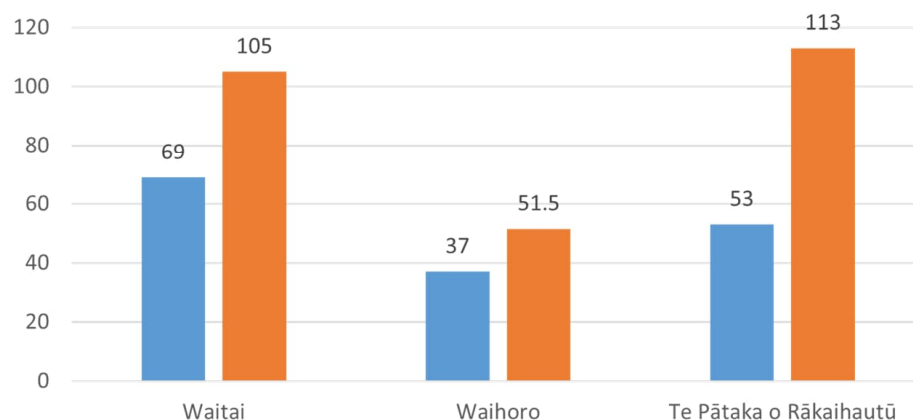
- 6 Waitai (tsunami evacuation plans)
- 1 Waihorō (general preparedness plan)

Community Hubs

July 2022 – March 2025

- 3 Waitai (1 active, 1 developing, 1 scoping)
- 6 Waihorō (3 active, 1 developing, 2 scoping)
- 16 Te Pātaka o Rākaihautū (6 active, 2 developing, 8 scoping)

Number of sessions and hours



City wide annual CDEM activity plan targets

- 60 public education sessions
- 30 community response plans/hubs supported

Progress (July 2024 – March 2025) – both targets exceeded

- 126 public education sessions
- 66 community response plans/hubs supported

Further targets by June 2025 (end of FY)

- Identify 2 more potential community hubs in Waitai
- Maintain relationships with community hubs
- Support capability building of community hubs

Community Response Plans

- A community response plan can be defined as *'a list of actions or steps that people can take to help keep themselves or others safe, to prevent further harm, or to support people after an event'*.
- Many community groups have included tsunami planning in their response plans. Any changes to evacuation zones will be included.
- The Council supports community groups in creating and owning community response plans for the risks they are likely to face.

Upcoming community resilience initiatives

- Localised tsunami warning signage and evacuation maps.
- Comprehensive tsunami preparedness resource packs.
 - Various audiences.
 - Schools, languages, etc.
- Enhanced community public information and messaging.
- Community resilience & engagement activity expanded.

Tsunami alerting system – overview

- A tsunami alerting system is a method or collection of methods to alert the public to a potential tsunami threat.
- Christchurch has a multi-modal warning system encompassing Emergency Mobile Alerts (EMA's), radio broadcasts, emergency services, traditional & social media and sirens.
- Our tsunami alerting system is being reviewed following a Council decision in 2021 to expand the current siren array and the current sirens approaching end of life.
- A full options report will be presented to the Council.

Tsunami alerting system – best practice

- Best practice is a multi-modal approach, with EMA's as the primary warning method supported by, radio broadcasts, emergency services, traditional & social media and – in some instances – sirens.
- The official warning mechanism for NZ.
- The alert messages are compatible with most phones.
- System coverage and compatibility improves year on year.
- Tsunami EMA's are issued by NEMA or Canterbury CDEM Group.
- Alerts provide key messages, instructions and links.

Risks with our current tsunami alerting system

- Our current system is over-complicated.
- The main concern is the fragile and outdated siren network.
- Expert advice is that our siren array and function as a primary warning mechanism is not fit for purpose.
- Installed in 2012 and 2015, our 45 sirens have a design life of 15 years, they need to be replaced in 2027 and 2030.
- Fragile due to age and earthquake damage, our sirens are vulnerable to power and internet outages, making them inoperable at times.

Risks with our current tsunami alerting system

- Sirens are inaudible in windy conditions, can not hear them on the beach in an easterly.
- This recording is fixed, english only, difficult to hear/understand.
- Sirens are not a best practice primary tsunami warning mechanism.
- The sirens are not a part of the national tsunami warning system.
- The sirens are a single-hazard-only alerting tool. Can be confused with other alerting tools such as rural fire alarms.
- Our sirens cannot be triggered locally – they are operated by a small company in Auckland using obsolete technology.

Tsunami Alerting System - Preferred Option

- Retain our multi-modal system, EMA's as the primary warning system.
- Supported by radio broadcasts, emergency services, traditional & social media and, to a lesser extent - sirens.
- The existing siren network is replaced by approximately 10 new sirens located at specific points where the efficiency of alerting systems such as EMAs may be reduced.
- Specific locations may include popular beaches, recreational forests etc where people are less likely to have cell phones.
- Implementation supported by extensive public information and community engagement.

Options for sirens – robust analysis criteria

- Clear, unambiguous call to action for all. Save lives.
- Best supports EMA's and other alerting tools.
- Locally controlled.
- Consistent with national approach.
- Efficient, reliable and straightforward.
- Simple and effective.

Preferred Option - Rationale

- Most effective alerting system.
- Aligns with the National Warning System, is best practice and is national consistency.
- Provides clear and accurate directions, improve understandability for the public, simplify the existing alerting system.
- Updated sirens will compliment primary alerting method.
- Updated sirens become multi functional sensors.
- Increased reliability and accessibility of sirens.

Other options for sirens – considered

- Decommission current sirens – (no sirens).
 - Does not provide for sirens located at specific points where the efficiency of alerting systems such as EMAs may be reduced.
- Replace current sirens (45).
 - Continued reliance on sirens is not the best alerting system.
- Expand current array (41).
 - Continued reliance on sirens is not the best alerting system.

Communications and Engagement



If the Council approves changes to the tsunami alert system, communications and marketing will be done across multiple channels e.g. Newsline, social media, advertising, e-newsletters, information to community boards etc.



Memo to elected members regarding NEMA evacuation zone changes upon release: outlining next steps and implications for Christchurch. Public communications and marketing will follow once zone changes are understood and about to be implemented.



Communications and engagement – to ensure we can effectively reach and engage with residents and key stakeholders, supporting stronger relationships and better outcomes. Special care will be taken when engaging with vulnerable and/or overloaded communities.



A messaging framework – to ensure internal alignment and external consistency through clear and focussed messaging. This framework will address critical, and often related issues, including tsunami preparedness, city planning and responses to climate change.

Next steps & recommendations

Decide:

- Meet with Coastal Boards to inform recommendations.
- Seek a decision from Council on alerting systems & sirens.

Continue Development:

- Tsunami evacuation and response planning.

Expand and Evolve:

- Community resilience activities.
- Communications and public information.

Implement:

- Council's decisions on alerting systems & sirens.
- Council's tsunami response planning and signage.

Pātai?



Christchurch Civil Defence
Emergency Management

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