

I hereby give notice that an ordinary meeting of the Golden Bay Community Board will be held on:

Date:	Monday 11 March 2024	
Time:	1.00pm	
Meeting Room:	Collingwood Fire Station,	
Venue:	Elizabeth Street, Collingwood	

Golden Bay Community Board Hapori Whānui ō Mohua

MINUTES ATTACHMENTS

ITEM RGBCB24-03-4 for natural weath	PAGE Amanda Power - EPOD Emergency & Disaster Resilience Pods - preparedness er events and AF8
Attachment 1	EPOD Presentation2
RGBCB24-03-6	William Wallis - Floating Launching Dock
Attachment 1	Bill Wallis tabled documents 19

EPOD[™] New Zealand

Golden Bay Community Board Monday 11 March 2024



- Introduction
- Why?
- Case Study
- Our Solution
- Our Wider Vision

Why? We live in a high-risk environment.

We live in a high-risk environment.

- New Zealand's Disaster Risk:
 - 1. Diverse Natural Hazards: including droughts, earthquakes, coastal hazards, floods, severe weather events, space weather, tsunamis, volcanic activity, and wildfires.
 - 2. Climate Change Impacts: exacerbating the frequency, impact, and occurrence of natural hazards.
 - **3. Severe Weather Events**: including strong winds, heavy rain, or snow causing significant damage to both built and natural environments.

• Future Disaster Events – Research Findings

- AF8: 75% probability in the next 50 years, causing widespread damage, isolation and predicted economic losses of NZ\$50-100+ billion.
- Hikurangi Fault: 25% probability in the next 50 years.
- Locality: 75% of our population live within 5km of the ocean.
- **Disproportionally affected communities**: Paying special attention to our communities, groups and people disproportionately affected by disasters.
 - Geographical, social and cultural communities, groups and people.
 - Rural and isolated communities.
 - Māori and Tangata Whenua.

Case Study: Cyclone Gabrielle

National

Deaths: 11 NZ (plus 1 missing) Cost: \$14.5b for NZ Injuries: 2000 (per ACC)

Hawke's Bay

Deaths: 8 (plus 1 missing) Cost: \$4.918b so far

Up to 546mm of rain in some areas at a max intensity of 56mm/hr

400 official rescues on first day.

9000 people were accommodated/fed in official CDCs on first night -1600 people needed ongoing emergency accommodation 2 days after the event. Many others accommodated in community led centres across the region.

30 isolated communities - 54 impacted communities in total - from Mahia to Pōrangahau

1200 dwellings significantly damaged and requiring building assessments

1600 incident management team members from across NZ deployed into HBCDEM Group Coordination Centre over 74 days activated (70 on one shift at a time). Demobilised 30 April.



25+ bridges destroyed 19 bridges severely damaged 19 bridges moderately damaged 100s of culverts under roads destroyed 100s of km of roads needed urgent repairs or total rebuilds



Napier-Wairoa railway line significantly damaged

Hastings - Napier railway line - bridge at Waitangi Awatoto destroyed

Significant power outages across region - parts of Napier City without power for over 7 days



breaches or overtopping many additional km of weakened stop banks - (erosion or scouring on land side from overtopping) across region

500+ helicopter flights

coordinated to deliver emergency food/water or supplies - 400 volunteers

300,000 landslides (approx) along East Coast of North Island - Esk Valley in just 12km² over 2000 landslides (University of Canterbury study)



Attachment 1



– Hawkes Bay

- 25 EPODs delivered to Te Whare Maire O Tapuwae Whānau Ora pric to the arrival of Cyclone Gabrielle (Funded by the Ministry for Maori Development)
- Being one of the worst affected regions, our EPODs provided a critical lifeline to the many communities in the wider Wairoa and East Coast region.
- We had worked closely with Te Whare Maire O Tapuwae Whānau Ora to project the likely disaster effects of the region, including:
 - The vast spread and isolation of the Wairoa district including 130kms of coastline and interconnected boarders between Napier (Hawkes Bay) and Gisborne (Tairāwhiti).
 - Climate change projections and extreme rainfall events, including 1-50 year and 1–100-year events (which were projected to increase).
 - Potential flooding of the Wairoa River resulting in rapid run-off and surface flooding.
 - Heavy reliance on state highways and roads for access and critical lifelines.
 - Emergency services and significant reliance on hospitals outside of the Wairoa district.
 - Closure of state highways, power outages across the district and river turbidity meaning water treatment plants couldn't product drinking water.

Wairoa – Client Statement

"EPOD has provided exceptional customer service from concept to on-time delivery of 20 x Resilience Emergency Pods for the Wairoa district. The communities will benefit enormously from this initiative for years to follow as our area is prone to climate change and isolation in the event of a natural disaster that unfortunately eventuated recently with Cyclone Gabrielle. I would definitely recommend their services to others because of their professionalism, attention to detail and commitment to community projects."

- Rangi Manuel of Te Whare Maire o Tapuwae Wairo

Our Solution: Improving New Zealand's Readiness, Response, **Recovery &** Resilience.

EPOD

our EPODS

Emergency Points Of Distribution



Our EPODs

Key Attributes: Emergency Points Of Distribution

- **Emergency POD Systems** Centralised and comprehensive Emergency Points of Distribution (EPODs).
- **EPOD Units**: Modular, scalable, and fully equipped units that can be pre-deployed (<u>**Preventative**</u>) or rapidly deployed (<u>**Reactive**</u>) to areas at risk of or affected by natural disasters.
- **Immediate Support**: Immediate support in the critical hours and days following an emergency or disaster.
- Autonomy & Self Sufficiency: Self-contained units are designed to operate autonomously, equipped to provide immediate relief and support in the aftermath of a disaster, encompassing communications and technology, power generation, life-saving and medical supplies, critical resources and other essential supplies.
- **Minimise Depth of Impact:** Focusing on minimizing the depth of initial impact and increasing the speed of recovery.

EPOD

Our EPODs Key Features

- EPOD Range
 - 1. Base EPOD
 - 2. Fully-Equipped EPOD
- 10FT, 20FT and 40FT
- Tailored Content Packages
- Key Engineering & Prefabrication Features
- Customisation Flexibility
- Modular and Scalable
- Quickly Deployable 1 week turnaround.



EPOD" Internal Triage System

Ensuring that the right resources are available at the right time. Designed to enhance efficiency and effectiveness in emergency response and management. Inspired by methodologies used in military, police and emergency services operations.

Red Sector	Orange Sector	Green Sector
Door		Door
Communications & Technology Primary Power Source Lifesaving & Medical Equipment Emergency Response & Management Hub	Tools & Equipment Lighting & Heating Secondary Power Sources Fuel & Energy Cooking Shelter & Storage	Food & Water Supply Hygiene & Sanitation Warmth, Shelter & Bedding Baby Items Pet Items Morale Items

Readiness & Response Capabilities Incorporating an EPOD System

1. Decentralised, Agile, and Community-Focused Model

- Current mechanisms **are traditionally centralised, resource-intensive** approaches that can struggle to meet affected communities with speed and efficiency.
- An EPOD system introduces a decentralised, agile, and community-focused model.

2. Deployment Speed

- Current mechanisms **involve mobilising resources from central depots to affected areas**—a process that can be time-consuming, especially in the face of infrastructural damage, severe weather conditions or unique New Zealand terrain.
- An EPOD system is designed for rapid deployment with pre-positioned units (**Preventative**) or units that can be quickly dispatched (**Reactive**) from nearby locations. **EPODs can be operational within minutes** of a disaster's occurrence.

3. Resource Use

- Current mechanisms often rely on a **substantial influx of resources post-disaster**, which can lead to logistical challenges and inefficiencies.
- EPODs **are designed to be self-sufficient units**, equipped with their own power sources, water purification systems, and medical supplies. This self-contained model **reduces dependency on external resources** and ensures that relief efforts can begin immediately, without waiting for emergency services or additional supplies to be transported in.

EPOD ** Strategic & Operational Advantages cont.

- 4. Community Involvement through a Dual "top down" and "bottom up" Approach
 - Traditional emergency management focuses on a "top-down" approach.
 - An EPOD system places strong emphasis on community involvement and empowerment. By design, EPODs facilitat
 an inclusive "bottom up" approach through local leadership and decision-making, allowing communities to contro
 and tailor their response based on their needs and priorities.
 - Training and capacity-building initiatives are integral to the EPOD deployment strategy, ensuring that communiti are not only recipients of aid but active participants in their recovery and resilience building.

5. Alleviating Workload of Emergency Services

- Emergency services are often overwhelmed in the wake of large-scale disasters, **forced to prioritise tasks under immense pressure**.
- EPOD systems can significantly alleviate this workload by handling many of the initial response activities that consume considerable time and resources. With an EPOD system in place, emergency services can concentrate on critical life-saving tasks, secure in the knowledge that the immediate needs for shelter, communication, and medical aid are being addressed independently.

6. Design & Functionality

• EPODs are designed to be both robust and adaptable, capable of withstanding severe weather conditions while providing essential services. Constructed from high-quality materials, each EPOD is weather-resistant, secure, and easy

Strategic & Operational Advantages cont. Incorporating an EPOD System

7. Targeting Disproportionally Affected Communities

- Not all communities are affected equally by disasters.
- EPOD systems are designed **target support to communities most in need**. This approach not only aims to provide immediate relief but also to build long-term resilience in areas historically left vulnerable to the effects of natural disasters and climate change events.

8. Integrating with Existing Infrastructure, Resources and Capabilities

- EPOD units are designed to integrate with existing infrastructure and community capabilities, such as rural fire stations, community meeting points and establishments, maraes, and other natural community hubs, optimising existing networks and resources.
- This **strategic alignment with natural community hubs** ensures that EPODs enhance and extend the reach of existing emergency response mechanisms.

Multi-Agency Integration & Collaboration

- 1. Our Process
 - Step 1: Identify vulnerable and disproportionally affected communities that would benefit from an EPOD system (including isolated and rural geographic communities and vulnerable or at risk social and cultural communities).
 - Step 2: Identify potential local or national funding organisations / agencies and any corporates or local businesses to wholly or partially fund or sponsor (including National and Local Trusts, Lions and Rotary Clubs, Local Communities and Businesses etc)
 - Step 3: Incorporate multiagency training, integration and collaboration opportunities in future EPOD deployments.
 - Step 4: Implement EPOD systems in your existing and future readiness, response and resilience strategies forming a strategic and operational partnership.

















