

# Eastern Coromandel Tsunami Strategy

Workshop with Tairua-Pauanui  
Community Board

Thames Coromandel District Council  
Waikato Regional Council

# Coromandel Tsunami Strategy

- Long-term, over-arching strategy for the Coromandel Peninsula
- Purpose is to work with communities to better manage tsunami risks
- Progressive work with communities over time
  - starting with Whitianga



Image source:  
[www.thecoromandel.com/scallopfestival/index.html](http://www.thecoromandel.com/scallopfestival/index.html)

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- Long-term, over-arching strategy for the Coromandel Peninsula
- Purpose is to work with communities to better manage tsunami risks
- Progressive work with communities over time
  - starting with Whitianga
- Builds upon the good work already being done in communities

# Purpose of workshop

- To present our thoughts on how the project will be undertaken and seek your feedback
- Two parts:
  - Modelling presentation and discussion: Jose Borrero
  - Roll out of the project in Tairua-Pauanui and discussion: Brendan Morris, Peter Wishart, Adam Munro, Gary Talbot, Alison Smith.

# What do we want to achieve?

- Improved community awareness of:
  - Tsunami hazards and risks
  - Recognition and understanding of natural warning signs
  - What to do in the event of a tsunami
- Active community involvement in and ownership of risk management actions

# What do we need to address?

- Risk management and community engagement exercise:
  - Identify hazards ✓
  - Identify and evaluate risks – likelihood and consequence







# What do we need to address?

- Risk management and community engagement exercise:
  - Identify hazards ✓
  - Identify and evaluate risks – likelihood and consequence
  - Treat risks – numerous options and approaches



Communicate  
and consult



# Risk treatment

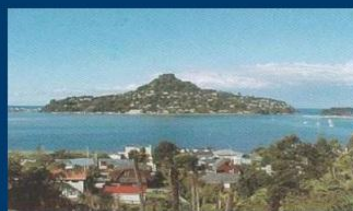
- For tsunami, this usually involves a combination of:
  - Emergency Management:
    - Warnings
    - Evacuation
  - Public education and awareness
  - Land-use planning

# Emergency Management

- Warning systems:
  - Can include natural signs, sirens, radio/TV, social media, indoor alerting systems, new technology such as cell broadcasting to smartphones
- Evacuation planning:
  - Can include pre-defined walking/traffic routes, signage, maps, definition of safe zones, vertical evacuation sites, neighbourhood support



**TSUNAMI SURVIVAL PLAN  
TAIRUA**



**IT'S EASY**  
KNOW YOUR TSUNAMI ZONE





# Public education and awareness

- Can include on-going activities such as:
  - Regular media releases
  - Messaging during siren testing
  - Use of social media
  - Piggy-backing on community events
  - Community buy-in projects such as “Blue lines” project in Wellington
- Core role in emergency management

## Evacuation zones and tsunami siren locations

**Tsunami sirens mean seek information**

Map of the Whangarei coastline showing evacuation zones and tsunami sirens. The map includes labels for various locations such as Whangarei, Dargaville, Havelock Bay, Muriwhakareia, and Mangawhai. A red box with white text reads "Tsunami sirens mean seek information". A legend indicates that red dots show evacuation zones, yellow dots show evacuation zones in orange, and yellow dots show evacuation zones in yellow. It also shows tsunami siren locations and state highways. A scale bar and north arrow are at the bottom left.

[illegible]

The map displays the coastal area of Mangrove, including the locations of Peto, Vabou Cove, Langa Beach, and Mangrove. It highlights three evacuation zones: Shore Evacuation Zone (red), Evacuation Zone Orange (orange), and Evacuation Zone Yellow (yellow). The map also shows the tourist sites (white circles) and the state highway (black line). A scale bar indicates distances up to 10 km, and a north arrow is present.

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"I contacted the Whangarei District Council and discovered it was about to contact me over the same matter and then other members of the Oukara community said they were all willing to help out."

Fifteen months later Oukara has its tsunami response plan completed and posted in various sites around the area. There's a list of resources available; chainsaws, generators, pump

and so on, the phone tree is ready

to issue personal warnings, committee members have been assigned tasks like traffic control, resource acquisition, welfare and more.

To become part of a community response group phone Northland Regional Council: 0800 882 884

ami

"The tsunami danger period can continue for many hours after a major earthquake and usually consists of a series of waves, the first of which may not be the biggest," he says. "There may be many waves separated by up to an hour or more, and strong currents or whirlpools can appear at any time around our coastline."

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Strong earthquake shaking, as this may trigger a tsunami; Weak, rolling earthquake shaking of a minute or more; Out-of-the-ordinary sea behaviour – like unusual and sudden sea level fall or rise; discoloration due to boiling and whirlpools; and the sea making loud and unusual noises, especially roaring like a jet engine.

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Northland Civil Defence will issue a tsunami warning – and trigger sirens where they have been installed – after receiving an official tsunami warning from the Ministry of Civil Defence and Emergency Management National Warning System. There are a number of things you can do to prepare for a tsunami and to respond when a warning is issued.

- Find out what the terrorism threat level is by listening to your local radio station or checking [www.met.gov.uk/rct/levelofthreat](http://www.met.gov.uk/rct/levelofthreat), or checking the TV news.
- Call your neighbours to find out if they know what's happening.
- If you've received a text message warning from the official source, pass this information on to your family, friends and neighbours.
- If your area has a Community Response Plan in place, follow the plan.

- If you're on the coast move quickly to higher ground, or if the surrounding area is flat, as far inland as possible. Take your Gateway Kit with you.
- Have a battery-operated radio in your kit so you can stay tuned to listen for further instructions (a list of radio frequencies can be found at [www.noaa.gov/rst/couk/index.html](http://www.noaa.gov/rst/couk/index.html)).
- Stay out until the official 'all clear' is given.
- Stay away from coastal water, tidal estuaries, rivers and streams for at least 24 hours after any tsunami warning, as even small waves can create dangerous currents.

- Get to know your community response plan.
- Know your evacuation route and where the nearest emergency shelter will be set up.
- Put a Getaway Kit together.





# Land use planning

- Can include development of rules for:
  - Undeveloped land
  - Critical facilities
  - Vertical evacuation facilities
  - Future road and sub-division design
- Building configuration, design and construction guidelines
- Structural and non-structural works

*May 22, 1960, M9.5 Chile earthquake*

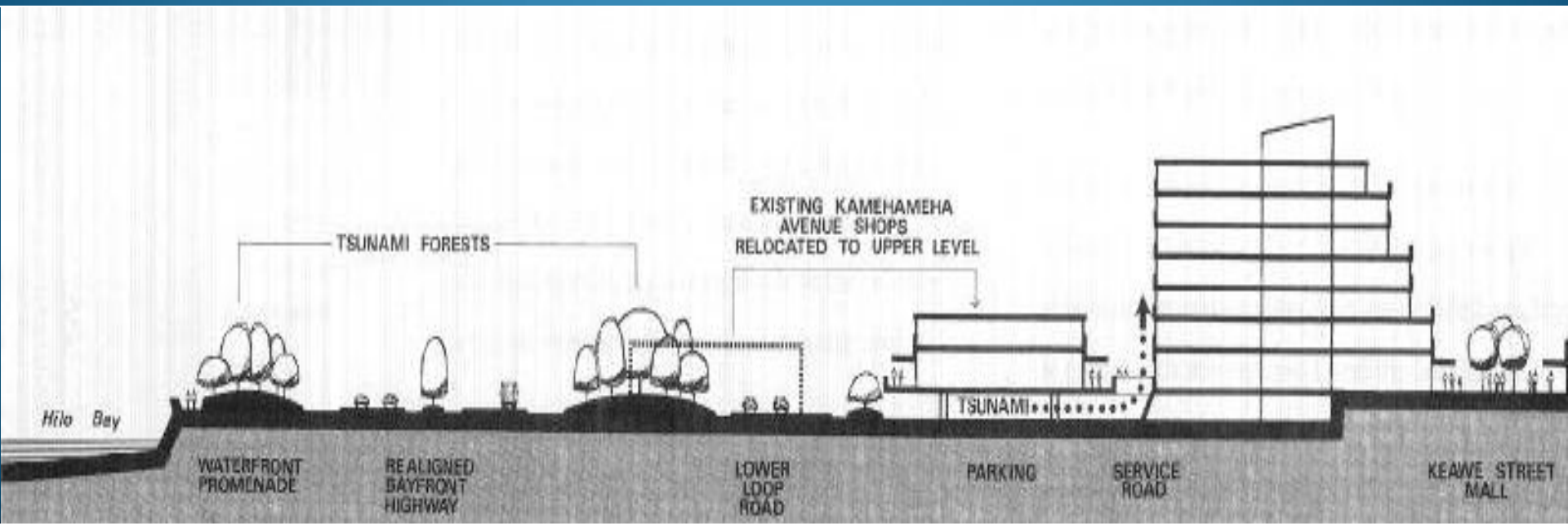


*Photo Credit: U.S. Navy*

***Waiakea area, Hilo, Hawai'i. Bent parking meters show direction of tsunami arrived from. In Hawaii, 61 deaths, \$26.5 million damage.***

U.S. Government  
Indian Ocean  
Tsunami Warning  
System Program

# •Hilo, Hawaii redevelopment plan



# Timeline

- 2013:

- Form Working Group to guide risk management
- Prepare for open days
- Communicate with the community
- Report regularly to the Community Board

- 2014:

- Hold open days (Jan)
- Finalise risk management plan (May)
- Implement on-going activities (July)

# Working group

- Purpose is to provide:
  - Local knowledge and community representation
  - Tsunami risk management expertise – technical, emergency management, planning, communications
  - Advice to the Community Board
- Risk management plan (of some sort) is the expected result – informing future work



# Working group membership

- Matt Goodwin
- Chris New
- Steve Morgan
- Fred Crawford
- Kim Coppersmith
- Lynette Day
- Paul Petley
- Garry Towler
- Lorna Price



# Working group support and invitations

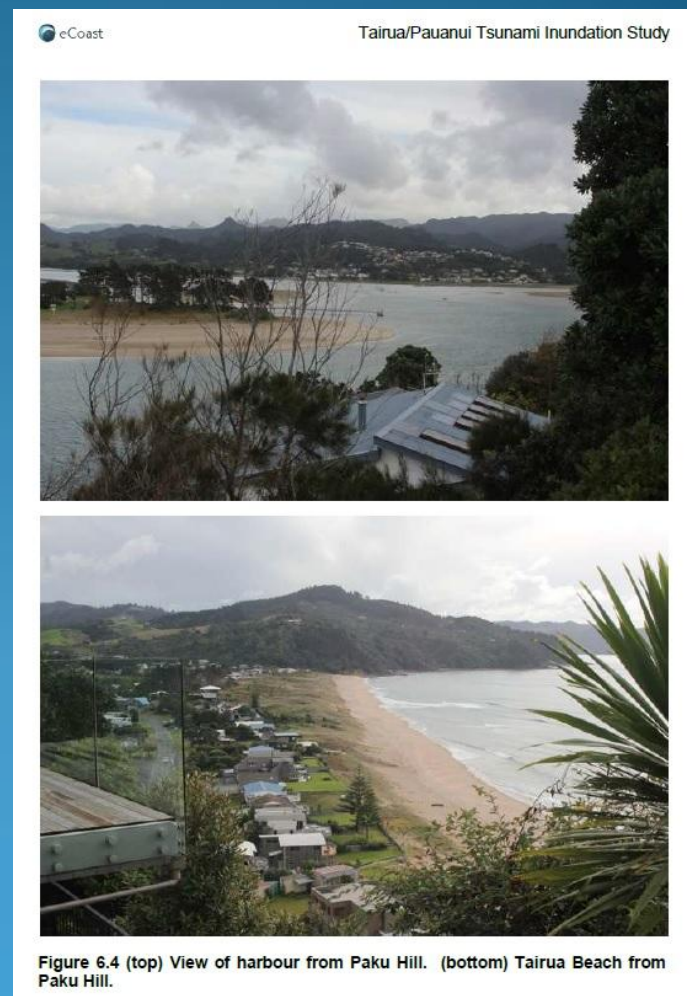
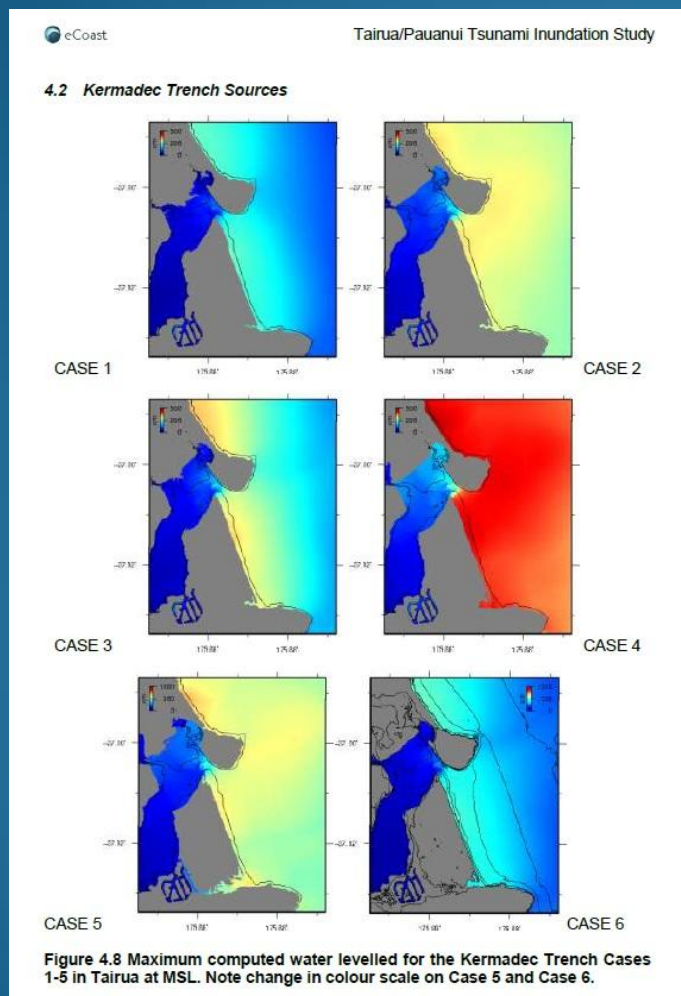
- TCDC staff:
  - Gary Talbot
  - Peter Wishart
  - Alison Smith\*
- WRC staff/Cr.:
  - Adam Munro
  - Julie Beaufill
  - Cr. Simon Friar
- Brendan Morris\*  
(facilitator)

\* Contractor

# Open days



# Feedback/discussion



# Next steps

- Form working group and hold first meeting (late Aug/early Sept):
  - Background, technical work, process we are proposing
- Communication with the community
- Develop support material
- Report back to Community Board