



Minutes

SMP Coastal Panel Meeting 9 – Adaptation Pathways, Thresholds and Triggers

- Times & Dates: **South East Coast 9:00am-12:00pm Tuesday 23/11/21**
- Venues: **Whangamata Council Office Board Room or MS Teams**
- Chairperson: **Amon Martin (South East)**
- Attendees: **TCDC** - Amon Martin (Via MS Teams), Jamie Boyle, Karen Moffatt-McLeod (Via MS Teams)
SMP Consultant (Royal HaskoningDHV) – Sian John, Nick Lewis (Via MS Teams)
Coastal Panel Members: Victoria Spence (Via MS Teams), Bob Renton, Dave Ryan, Sharon Harvey (Via MS Teams), Matthew Purdon, Jean McCann, Eleanor Haughey (Via MS Teams), Callum Stewart (Via MS Teams), Chris New Christina Needham (Via MS Teams)
WRC: Rick Liefing (Via MS Teams)
- Apologies: Kerry Gibb
Paul Shanks

Meeting Objective

- To review Policy Unit adaptation pathways based on feedback received and to begin the process of defining pathway thresholds and triggers

Agenda Items

1. Introduction.
2. Progress:
 - a. Minutes of Meeting 8 (September 2021).

No matters arising from the minutes, Minutes from last meeting accepted

- b. Review of Actions (see page 2).

Actions:

9 – on agenda for today

13 – some discussions on presenting to WRC through the climate action committee first – rather than the transport committee. Some WRC councillors on both committees.

28 – included in presentation today

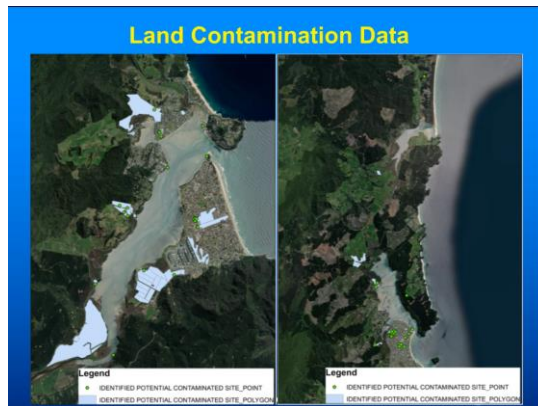
30 – included in presentation today

33 – Not just about comms – it is comms & engagement. More to come until the end of the project. Update panels on overall project early next year

34 – not for this area

31, 32, 35, 36, 37 - Completed

- c. Short presentation on East coast storm events (East Coast CPs only), locations of waste disposal sites and sites of cultural significance.



Green – unidentified potential Contamination, Grey dots – Potential contamination (but not from landfill) could be sheep dips, spraying etc

Information behind this is useful as it identifies sites of contamination.

This information will be included in the final report.

1-2 specific to South East area that need to be considered. Majority of sites is about 'potential' rather than confirmed areas of contamination.

There is a database behind this info with more information

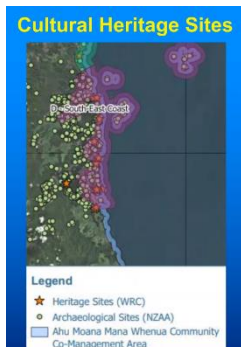
RL - WRC will be publishing a report soon that shows 18 coastal landfills (coastal broadly speaking given proximity to the coast - around entire WRC coastline) and ranked them according to relative risk posed to human health and the environment. WRC has a whole team that looks at contaminated land, and are looking to put on a mapping survey so people can click on a property and see potential contamination.

A lot of sites are confidential (WRC holds info on heritage sites)

Red stars are Heritage sites

Green dots – archaeological sites

There is a database behind this info with more information



East Coast Storms

Date of Storm	Settlements impacted by Coastal Flooding	Estimated severity of flooding
10 Sept 1933	Whitianga	Moderate
3 May 1934	Whitianga	Moderate
1-2 Feb 1936	Whitianga	Extensive
25-26 Mar 1936	Whitianga	Extensive
6 Mar 1954	Whitianga, Tairua	Moderate
24 May 1962	Whitianga	Moderate
10 April 1968	Whitianga	Moderate
23 Jan 1972	Whitianga	Extensive
18 July 1978	Whitianga, Cooks Beach, Tairua, Whiritoa	Extensive
19 Mar 1980	Whitianga	Moderate
12 Apr 1981	Whitianga	Moderate
12-13 May 1985	Whitianga	Moderate
14-15 Jul 1987	Whitianga	Moderate
22 Aug 1989	Whitianga	Moderate
10 Mar 1997	Whitianga, Tairua, Whangamata	Moderate
21 Jan 2002	Whitianga	Moderate
21 Aug 2003	Whitianga	Moderate
26 Jul 2008	Whitianga	Moderate
29 Jan 2011	Whitianga	Moderate
28 Sept 2013	Whitianga	Moderate
16 March 2015	Whitianga	Moderate
23 - 24 May 2021	Whitianga	Moderate

Notes:

- 'Extensive' severity includes property flooding
- 2015 - Cyclone Pam
- 2002 – 'weather bomb'
- 1978 event considered largest
 - Road over wash (the Esplanade, Buffalo Beach Rd) exceeded 1.2m depth in surges
- May 2021 storm considered between 1 in 5- to 1 in 10-year event



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East Coast Storms

Summary:

- Events primarily impact Whitianga, but also Cooks Beach (east)
- Whitianga has experienced reasonably frequent coastal flooding, with at least 22 separate events since 1930
- From the recorded over the last 90 years – the highest risk properties (e.g., Esplanade Road, Ohuka Beach) have an annual probability of being flooded of more than 10% (1 in every 10 years)
- Other areas vulnerable to flooding probably have an annual probability of flooding ranging from 2-10% (between 1 in every 50 years and 1 in every 10 years)
- Note many hotspots (inc. Esplanade Road) now afforded some protected by seawalls, as is Cook Beach

This has all been incorporated in the work already done, apart from Map 2021 which is now included.

March 1988 storm (Cyclone Bola) is not on the list – NL to investigated and it was worse in west coast – rainfall causing flooding was the biggest issue.

3. Community consultation:
 - a. Overview.

Overview of Consultation

- 14 events – 10 in person, 4 online
- Around 280 people in person, 70 online
- In the Southeast
 - 82 in person - 14 Tairua, 34 Pauanui, 35 Whangamata
 - 25-30 online
- 17 comments online (none for the Southeast)
- All responses to the questionnaire indicated that they understood / appreciated the presentations
- Some disbelief *"the poster is wrong"* but general acceptance
- Some clarifications required (e.g., change planning practices, inappropriate development etc.)
- Requests for :
 - further engagement, inc. with younger groups
 - engagement through rate payers associations
 - more focus on the short-term, the King Tide and 5% AEP events
 - more information on costs and who pays (for what)

Well received by people who wanted further consultation. Not well attended in some areas. Map on TCDC website – you can put a pin in it and make your comments for that area or pull up the PU poster and make a comment, 17 comments to date – will stay live.

Comments – understood what was said and appreciated. How to reach younger people is a challenge for all of us to get more people involved.

Sticky notes comments for posters were specific to individual PU's.

Who Pays? RL – good learnings have come out of Hawkes Bay. There is a lot of work going on in that space. There will be some legislative changing coming in next couple of years.

Hopefully some clarity in the short term on who pays.

AM – often it is the beneficiaries/those at risk that pay – so different layers to the question.

CS – storm events and AEP's could be confusing for people to understand. Frequency events – way it is being described is confusing. E.g. the 1% event today now happens every 5 years if we get SLR in the future. Does this include an increase in storms?

NL – there is an expected increase in storminess – which is not included in this analysis.

Overview of consultation

- Maintaining access is imperative for local communities, both SH25 and local roads
- Suggestions:
 - Set funds aside now for/in those locations where defence is advocated
 - Older people, and those more able, to pay more
 - Developers to make funding contributions
 - Incentives to move to higher ground (e.g., Tararu)
- Diverse views:
 - Include 'provide space for nature' for all soft foreshores
 - Hard structures for necessary infrastructure, balanced by no protection for private property
 - ...will Whangamata have to keep paying for the Thames Coast, rather than concentrating on Whangamata?

b. Coastal Panel reflections.

c. Review of adaptation options and pathways.

PU116 – Ocean Beach Tairua

Comments:

- Use of aquaculture to reduce the energy of the storm surge?
- Do not support hard structures/rock
- **Advocate more dune planting now, to restore foredune**
- Solution – monitoring – management
- Southern end of the beach not founded on rock but the tailings from the development of Paku

PU118 – Tairua Marina

No comments

PU119 – Grahams Creek

Comments:

- **Area of extreme fluvial flooding** – these events will parallel coastal inundation
- Need to plan for simultaneous events
- Requires stop banks and runoff protection – with incremental increases in size
- Removal of decaying vegetation required

PU120 – Tairua

Comments:

- Reference to Tim Naish's work on subsidence exacerbating SLR – not necessarily relevant in Tairua
- **Incrementally increase height of the existing bund used dredged material from the marina/natural sources**
- Until trigger is reached then switch to a more engineered structure OR **partial retreat paired with natural solutions** – allowing for the high value reserve/ecology to remain
- The long term requirements of defence (a bund) need to be planned/allowed for now (to include the removal of flood waters)
- Accept that SLR is coming and retreat, but with targeted support for those who are long terms residents rather than new comers (who knew the risk)

No issue of subsidence here – issues with up-lift

RL – bund is an informal bund – not sure on what current level of protection it provides. If looking at raising it, this needs to be looked at. WRC is looking at putting in a tide gauge in Tairua to gain better understanding.

SJ – are we in a position to advocate one pathway over the other?

JM – there are new houses being built around here – so what happens in 10-20 years? Is it fair to ask people to then move?

CS – building act– you have to plan for 50 years' time e.g. Minimum Floor Levels – so it has been considered. Building consents can be issued – but do note in cases that the land may be at risk of inundation.

SH comes through there – so the town centre needs to be defended, so why not extend that to the outer areas? Economic impact of defending the town – but will possibly loose e.g. 30% of residential population, is that viable?

JB – all the green spaces will be lost.

SJ – most of the feedback is to defend. How that is achieved needs to be determined.

Update pathway to reflect

PU123 – Tairua River West

Comments:

- SH25 north of Green Point should be protected by raising the level of the road and a seawall

PU124 - Hikuai

Comments:

- Inundation risk could be reduced if the **Tairua River and catchment were better managed**, if sand bunds were dredged (self cleaning river system)
- **Maintenance of access imperative** – flooding of Hikuai Road needs to be addressed
- Hikuai stop bank bund needs repair to allow floodwater to escape
- Raise the road and ensure water can escape (so it does not flow back onto farms)

More focused consultation in this area. Needs to be looked from river flooding aspect as well.

RL – WRC have just installed new water level recorder on Morrison Rd to get a better understanding e.g. when river will flood etc

No river/catchment modelling yet, having the water level recorder is first step in understanding the system.

PU125 – Tairua River East

Comments:

- Better catchment management needed – channel dredging to encourage flushing
- Carbon credits vs silt management – cutting of the pine forests create siltation problems
- Native planting should be encouraged

CS – frustration about not being allowed to spill any sediment – but forestry is exempt from earth moving standards
VS – Rate Payers Assoc has done a deep dive into the forestry. Micro catchments not taken into account.
RL – WRC issue.

PU126 – Pauanui – no comments

PU127 – Pauanui Beach

Comments:

- **Sediment recycling advocated** - from Billy Point, from the north to the south
- **Sediment has to be dredged, not taken from the beach** (nesting areas), **for recycling**
- Push-ups at southern end unlikely to be effective
- The volume of push-ups should be increased to **maintain the dunes** (encourage accretion)
- Significant erosion at southern end – dune needs to move back
- Dune health and height needs to increase
- Enhance dunes with planting
- Channel needs to be managed/dredged
- Hoggan Path survey was not representative and should be redone – such an approach advocated for the northern part of the beach

BR – Push-ups and sand transfers haven't been advocated – only the planting
Update: Pathway to include sediment recycling and beach push ups on the pathway proposals

NL – looking at sensitivity test (re-analysis) to check what impact historical dune dozing has had on the results on some key parameters

PU129 – Opoutere & Wharekawa River – no comments

VS? – how is the process on targeted consultation on the cultural heritage site here?

AM – in progress, has spoken with John Linstead only at this point.

PU131 – Onemana – no comments

PU134 – Inner Whangamata Harbour – not comments

PU137 – Whangamata Marina – no comments

CS – we talked about protecting area from wharf around the causeway. Industrial area and supermarket, we didn't come to a conclusion?

JB – more risk than Tairua – so why say protect Tairua and retreat from here

EH – it was 2 areas – so they were split

CS – if defending – where do you terminate that? Some properties also at risk in that area.

PU138 – Outer Whangamata Harbour

Comments:

- Important public assets, wastewater system, water reticulation and access/roading
- Erosion now – advocate sediment recycling and engineering planting or revetment

PU139 – Whangamata Beach North

Comments:

- Planting does not work here – waste of time and money, a more permanent solution is required
- **Action is needed now and should include dune planting** / removal of weed species (protection/improvement of the natural environment)
- **No structures, including boardwalks, should be built in the dunes**
- Can we trust WRC cost estimates?

More support for dune planting – than alternative. Not advocating action in the North – but planting in the south. North has less risk.

VS – is there info on the Benefits or draw backs of Board walks in dune systems?

JB – can be benefits if done right – but can be contentious

NL – only use them to formalise access – can limit damage

EH – cost comment re WRC could be on the Mangrove situation in Whangamata.

CS – is JB saying with board walks – like the ones in Aussie that are elevated? Dune system can go underneath it?

JB – yes the Aussie ones that show success are elevated.

SJ – markers and posts can also formalise access

PU140 – Whangamata Beach South

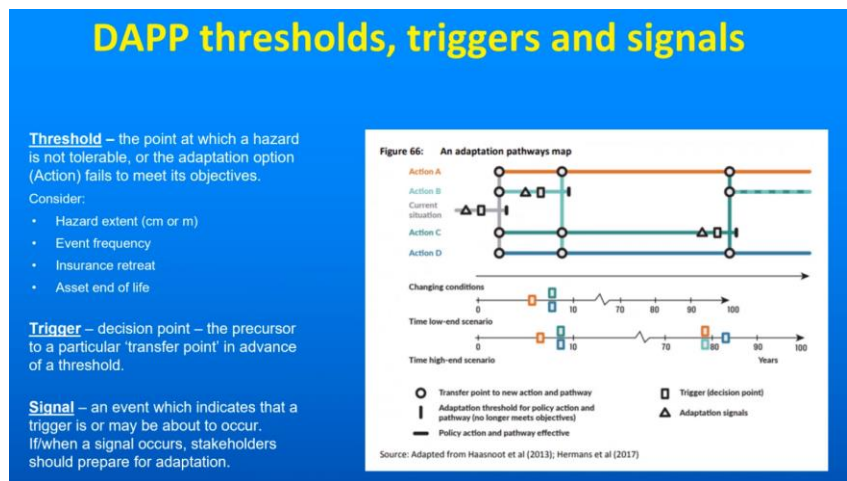
Comments:

- Consider hard options if planting does not work
- Undertake dune rehabilitation more comprehensively

SJ – our pathway does not advocate any hard structures due to nature of the beach

PU141 – no comments

4. Setting thresholds and triggers:
a. Presentation



Focus on Thresholds today (triggers can be done later) Use "Assets at Risk' Paper to assist. Information on frequency changes.

Approach to determining thresholds, triggers and signals

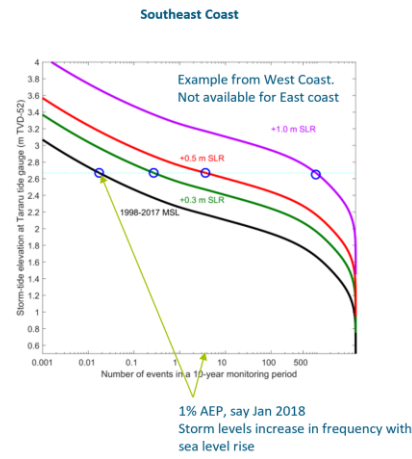
Principles

- Draft thresholds and triggers are to be developed by the Coastal Panels
 - Then sense checked by the TAG and wider community
- Focus will be on determining 'thresholds' first and then 'triggers'
 - Signals can wait – these can be science/engineering derived
- Representative, or key, PUs have been selected for discussion
 - Not those where more work is to be done

Steps – for each Policy Unit

1. Information review:
 - a. Identify the hazard/s and the sequence in which they occur
 - b. Consider assets/values at risk and the 'condition' and 'age' of critical infrastructure, including existing defences
 - c. Review rates/extents of predicted change (e.g., 20cm increments of SLR for KT, 5% and 1% AEP events)
 - d. Consider the changing frequency of events
2. Assessment:
 - a. Reassess tolerances
 - b. Propose thresholds for each pathway
 - c. Propose triggers for each threshold

and repeat



On East Coast SLR, King Tides & storm events have greater Impacts.

There is also a NIWA map for Tauranga which could be of use.
 RL - WRC happy to fund one from NIWA for the Mercury Bay area

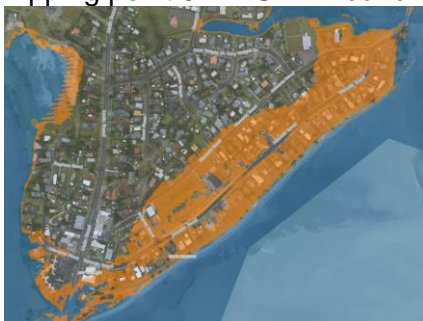
b. Example Policy Units.

PU 120 – Tairua



JM – are WRC working with Golf Course to improve drainage outlets from that area.
 SJ – need to plan for change now – 100 year storm is a signal (signal event has not happened)
 JB – in May storm water level nearly at the top of the bund

Tipping point 0.2m SLR – bund being over-topped (trigger) signal may be 10ml SLR



PU 127 – Pauanui Beach

Erosion issue rather than inundation issue.
 Signals and triggers have potentially been reached already.
 NL – doing a re-analysis on the effects of the dune excavation/push ups
 JB – in last year, lost around 12m.
 ?? – reserve has lost 6m

Beach push-ups needed now

AM – planting and maintaining natural environment is lower cost (high benefit) do these earlier than the other more expensive options.

BR – other issue is a build-up of sand around the boat ramp (can't get out 2 hours aside of low tide)

SJ – this project and that issue don't really fit. As about inundation/erosion, rather than around recreational access (boating), more about beach access. Relevant if the sand blocks off the harbour and causes flooding.

PU 137 – Whangamata Marina

AM - 0.4m king tide may be putting some houses at risk. Threshold .6, signal 0.2 or 0.3, trigger needs to be before 0.2



1% event may change the desire to implement some change.

JB – at a 5% event insurance companies may not re-insure. So may be that point is intolerable.

CN - Is there a time frame currently attached to each 0.1 %m SLR?

NL – 10-15 years

VS – this discussion would be useful to play out at next community consultations – show photos of previous damage so people understand what may occur. Put a human experience to the maths & science.

PU140 – Whangamata Beach South

What is the threshold on when the storm water outlets need to be retrofitted? Issue is now.

?? – before there is a problem

JB – issues around specific sites, not a shoreline specific problem (in his opinion). They are renewed if lapse in consent or if damaged. WRC has new rules around this.

SJ – threshold when they become a problem

JB – ones in the south are being looked at for renewal (damage)

Plan for change at southern end of beach pathway. What is the threshold here?

?? – pro active or reactive? Most people will be reactive

JB – number of houses at risk has jumped (assets at risk), reserves at risk

Signal is rate of erosion. Carpark will be at risk. Trigger may be soon. 8-10m away from current shoreline. Look at historical rates of change to determine trigger.

JM - If the reserve goes – then what is the need for a carpark and toilets

SJ – agrees, signal has already occurred

5. Next Meeting 18th January 2022

Meeting Closed: 12 O'clock

Papers in advance

- I. Agenda and action list
- II. Consultation feedback summary

Resources (to be handing out at the meeting or projected online)

- I. Example Policy Unit posters.
- II. Summary of predicted event frequency changes.
- III. Summary of key assets at risk and coastal defence condition (if any).
- IV. Interactive hazard mapping outputs – to be projected online.

Actions Table – SMP 8

No.	Action	Responsible	Status
9	Timeline of storm events for the East coast sought.	JB/WRC RHDHV	Information provided to TCDC/RHDHV for inclusion in the Coastal Environment Report. Brief presentation on the agenda for the East Coast CPs.
13	Awareness of the SMP Project to be raised with the Regional Transport Committee	Project Office	In progress - presentation tentatively proposed for Oct 2021 did not occur. Matter to be discussed with Tony Fox re. appropriate timing.
28	Obtain WRC mapping for tip sites around the peninsula that could be used to inform the risk assessment	WRC/Project Office	Completed. Information provided to RHDHV for inclusion in the Coastal Environment Report. Brief presentation on the agenda.
30	Provide maps for areas of cultural significance	Project Office	Brief presentation on the agenda. Information to be uploaded to project shared folder subsequently.
31	Definition posters for the open days (icons included?)	Project Office	Complete
32	Include on posters if the solution is for erosion or inundation	Project Office	Complete
33	Communications Plan	AM/CB	Plan implemented for open days and now to be updated re. work to date and steps to project close
34	Kuaotunu West – re-work the posters and send back out to the group before printing. Also add to next TAG meeting for discussion	Project Office/SJ AM	Posters revised and provided Discussion at TAG meeting to follow
35	Reassess PU 118 (Southeast) – look at King Tide data and access issues	Project Office	Complete
36	Change public consultations days and times for Western side of coromandel peninsula	AM/KMM	Complete
37	Update (PU 68 & 69) with options and send to Stephanie for further comment	Project Office	Complete

38	PU120 (SE) most of the feedback is to defend. Update pathway to reflect	SJ/Project Office	
39	PU127 (SE) Update sediment recycling and beach push ups on the pathway proposals	SJ/Project Office	
40	WRC to provide a frequency assessment for Whitianga Tide Gauge (to be assessed by NIWA).	RL/WRC	