

Draft Minutes Mercury Bay

	SMP Coastal Panel Meeting 11: Coastal Adaptation Pathways
Times & Dates:	Mercury Bay Coast 1:00pm-4:00pm Thursday 10/03/22
Venues:	MS Teams
Chairperson:	Coastal Panel Chair: Graeme Osborne
Attendees:	 TCDC - Amon Martin, Jamie Boyle, Karen Moffatt-McLeod SMP Consultants (Royal HaskoningDHV) – Sian John Coastal Panel Members: Christopher Devenoges, Howard Saunders, Kim Lawry, Jamie Ryan, Dave Lameson, Jill Piece, James Hutt WRC: Alejandro Cifuentes Waka Kotahi: David Grieg, David Speirs
Apologies:	Carrie Parker, Nick Lewis - RHDVH
Observers:	Tony Fox – TCDC Councillor, Amy Blair – DOC

Meeting Objective

Pathway confirmation, feedback from Waka Kotahi and preparation for community consultation events.

Agenda Items

- 1. Introduction
- 2. Progress:
- a. Minutes of Meeting 10 (January 2022)

Minutes adopted with the correct of Jill Pierces name

b. Review of Actions

#13 raised awareness and have climate action committee meeting on Thursday – still a need to go through to regional transport committee.

- #34 Hikuai targeted consultation. (as well as Pauanui, Moanatairi, Kuaotunu, Kennedy Bay, Brophy's Beach). Not scheduled yet, but needs to be done in conjunction with WRC not relevant to this panel
- #40 Still in progress Jamie will chase up
- #41 presenting at this meeting
- #43 will progress when they understand what they need the tool to do and be user friendly
- #44 completed
- #45 need to update the Pauanui community no targeted meeting yet (covid hold up) not relevant to this panel
- #46 on agenda for today's meeting
- #47 Relevant to Whangamata area only
- #48 Updated pathways and will be presented in today's meeting
- #49 Whangamata South Targeted consultation no meeting as yet (covid hold up) not relevant for this panel
- #50 in progress will be documented in the environment report. Potential interactions between contamination sites and pathways, RHDHV have been looking at none in this coastal panel area. One site in Tairua Harbour which is a good example and will be shown. Some may strengthen the need for a particular pathway.

3. Review of updated Adaptation Pathways, Thresholds and Triggers

Following January meetings, comments were taken on board and updated the PU Posters.

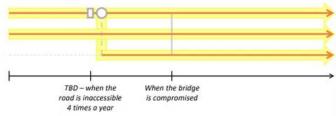
The look of the new posters for public consultation will provide a location map where policy unit starts and finishes to make it clearer. Pathways have been changed to reflect the pathway change/course of action at the 'trigger' rather than at the 'threshold' (which would be too late for action) Key on bottom left gives an indication of timeframes. WRC will need to look at their assets and do consultation process/analysis to make any changes (based on recommendation from SMP report)

Information has also been made available to Waka Kotahi – so they can plan in their regular maintenance for things such as raising the road in some locations.

- ¹Likely to be an appropriate long-term option for the western end of the beach.
- ² Likely to be an appropriate long-term option for the eastern end of the beach.
- ³ Approx. 24 years into future based on RCP8.5 (83rd Percentile)
- ⁴ Approx. 43 years into future based on RCP8.5 (83rd Percentile)
- ⁵ Approx. 57 years into future based on RCP8.5 (83rd Percentile)
- ⁶ Approx. 71 years into future based on RCP8.5 (83rd Percentile)

PU#112 Hot Water Beach

Maintain / rehabilitate dunes, regenerate wetlands and manage access Avoid inappropriate new development in hazard prone areas (including those areas in the south prone to fluvial flooding) Retrofit (raise) hazard affected roads and properties



Certain locations where we need integrated modelling due to fluvial flooding also involved – this is one of those areas.

Suggestion is for trigger (to raise the road or take other action) is when road is flooded 3-4 times a year – HS thinks this is reasonable. One lane bridge is a choke point.

DL – is 4 times a year too low? As other areas already have roads closed 3-4 times a year.

SJ – some areas it is acceptable, but some areas e.g. SH25 it is not acceptable.

HS – info needs to be in front of council planners

Maybe trigger is if the subdivision goes ahead?

JB – may need to look at visitor numbers/peak times when flooding is not tolerable – DL agrees, also how long it is restricted. E.g. high tide only

PU#110 Hahei



"Continued recession of Dune" is too loose

JB – fore dune on southern end of beach has gone since storm last year. Houses at that end are on bedrock. Sand push ups happening already. May need further info from engineers to determine trigger. Area further up (north)– work out storm cut on dune that would be a trigger.

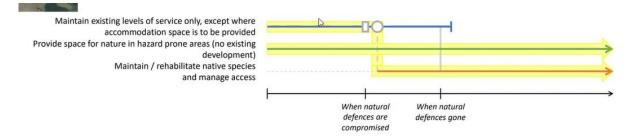
SJ – need another line added as need to deal with southern end of the beach differently than the northern/carpark end. Perhaps the trigger has been reached for the southern end.

GO - is there a council reserve in front of houses? JB - DOC land managed by TCDC.

GO - will council reserve be incorporated into dune regeneration?

Implementation issue to be resolved

PU#107 Cooks Beach - Purangi River

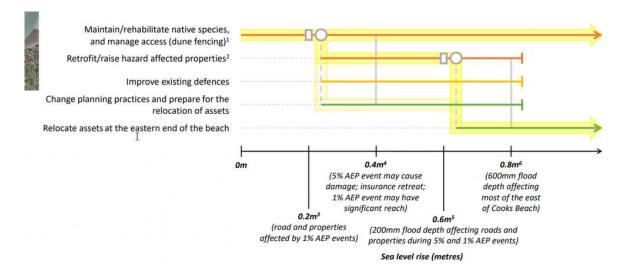


What does "when natural defences are compromised" mean for a trigger – needs to be defined better. If there is no accommodation space due to being private land, it can make this difficult.

JR - suggests a water level gauge as a trigger

AM – may say - support landowners to enhance natural habitat?

PU#106 Cooks Beach



Still have the 2 alternative pathways on this PU – improve existing defences line still on pathway, do we now remove this?

Existing defences are existing rock seawalls.

JB – some key areas of flooding so could buy time with managing & rehabilitating dunes could mitigate risk (near boat ramp which would need to be removed) and delay issues for another 20 odd years.

GO – does not see how we can take out existing defences as a general principle since we are recommending them in others.

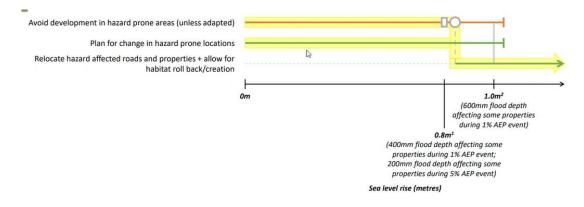
SJ - difference between taking them out and not maintaining them.

KL – supports the managed retreat option and agrees that we need different strategies for different places. We are giving a long lead in time and need to start giving the message

JR – wall has been a failure; it is already getting overtopped.

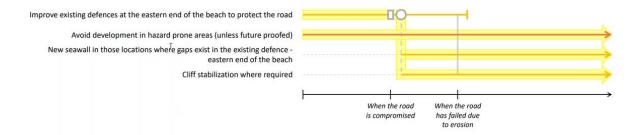
AM – hazards and risks or assets and values cause us to be unequitable around the coromandel

PU#105 Cooks Beach Estuary



JB – wonders if trigger is too late as there would be significant damage with that level of SLR & Storm event

PU#103 Maramaratotara (Flaxmill Bay & Front Beach)

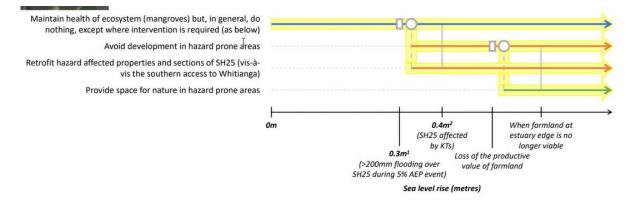


JB – keeping restoration work going and once road is compromised that is the change pathway

JR - also apply to Front Beach

*Note CP description should be New Chums to Hot Water Beach

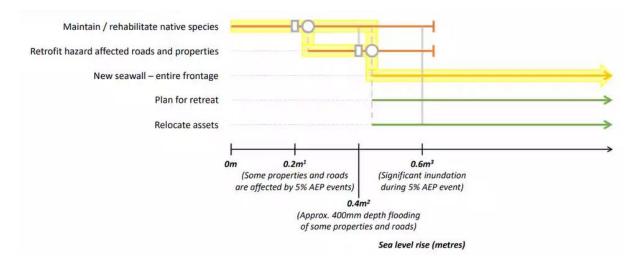
PU#102 Whitianga Inner Harbour



JR – should avoid development in Hazard prone areas should be now – will be adjusted – make trigger restriction of access e.g. flooded 4 times a year

JB - waka Kotahi could have data to assist with setting triggers

PU#101 Whitianga Outer harbour



AM – remove word 'seawall' and use words that add amenity value – protection/stop banks Is there a general consensus that we should protect Whitianga? JR – room for managed retreat and some buildings could be lifted. Huge cost to protect and pump ongoing when there is land available past aiport

AC – reservation if preference is to protect – needs to be accompanied by proper regulatory changes. Make sure 'defence' is reflected that further development is taken into account.

KL – Business/township end of Whitianga so need to consider this differently that the reserve part of Whitianga

JB – specific few places where inundation comes from – perhaps a hybrid approach to protect against flooding for a period of time – buy time (like suggestion for Cooks Beach)

JB – There are a few specific places where inundation comes from – perhaps a hybrid approach to protect against flooding for a period of time – buy time (like the suggestion for Cooks Beach)

AM – we should consider the guiding principles and the values identified for the area to help inform protection or a hybrid approach.

GO – We already have guiding principles; would these be different ones. The principle of equitability for communities, property owners and ratepayers are important, for example we need equity with Thames – if Thames is being valued in a particular way then that methodology needs to be applied consistently across the Council area, if that means being protected, we need to protect Whitianga in an equivalent / equitable way.

AM – I don't believe we have a principal of equity across the district. It is the risks and values that will determine what pathway approach we take. This will be different as risks, values and potential solution are different for different policy units.

JR – we can't make a recommendation as we have valid arguments from both sides, need more public consultation on this

DL – assets of Whitianga and the growth of the area means it should be protected – we can't walk away from it. Waterways land has been raised 1.4m above ground level– so wouldn't need gates/loch at tat end

SJ - a detailed design would look at that in far more detail

AM - key is are we buying time to relocate or buying time to implement protection?

1. There is an understanding the Whitianga should be protected from flooding/inundation in the long term.

2. But as we do this, where possible, we should avoid losing natural characteristics of the beach.

SJ – 2 principles and the principle of maintaining the beach need to go on the poster

Should we presenting 2 alternatives or do we show one or the other?

GO – show both

JP – show both

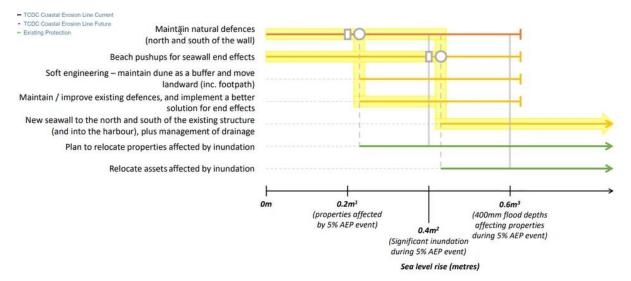
JH – agrees with JB that we need to change the pathways to show step by step (incremental) – supports that

KL – agrees with JB as well – we need a hybrid solution, and it needs to consider managed retreat in some areas of the town. Need to start sending these message now for critical areas. People need to know the risk

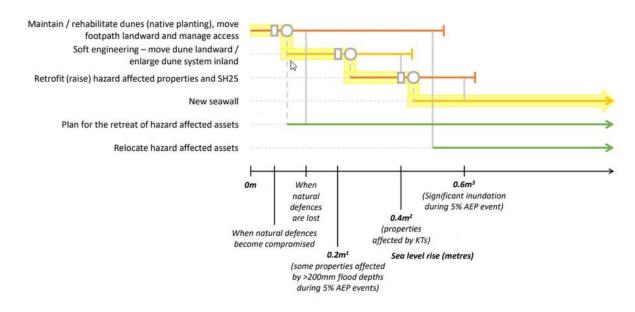
- JR show both options and agrees with KL & JH
- DL where do we stand now?

AM - 3 people who want both options shown, further investigation of the hybrid option as some areas may be better protected and some retreated.

PU#100 Buffalo Beach South



PU#99 Buffalo Beach Reserve

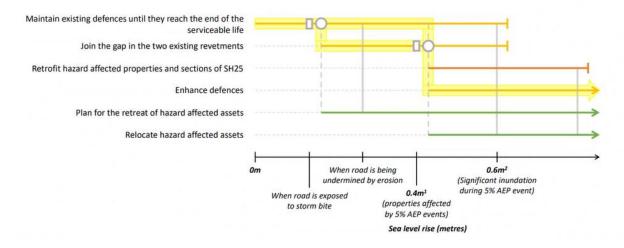


- AM are we still wanting 2 options on if we protect the SH or not
- JB protecting the SH for flooding
- SJ this is the location that we didn't want to defend for as long as possible
- AM could raise the SH makes it a stop bank

SJ – if you have a seawall you don't need to raise the SH, but if no seawall you would need to keep building up the SH

Change to show alternatives

PU#98 Buffalo Beach North



JB: No option for hybrid solution here

reflect it is a 'live' situation in terms of the resident's rock wall

Stopped halfway through the PU due to time constraints – will need a further meeting to complete

4. Update on options for retreat

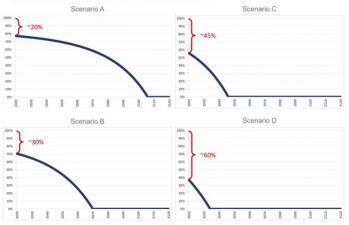
CLIMATE LEASES – summary from Belinda Storey Presentation

Climate Leases – in principle

- Transition of existing properties from Freehold to Leasehold
- Freehold property bought by an 'entity' and leased back to the original property owner.
- The value of the property is determined by the length of time left before is impacted/lost.
- Concept at this stage, still a lot of detail to work through!



Climate Leases: Scenarios



Belinda Storey Presentation is found here:

https://www.waikatoregion.govt.nz/community/whats-happening/council-meetings/climateaction-committee-agendas-and-minutes/#e9608

AC - info on how lease back work in the USA

https://coastadapt.com.au/sites/default/files/case_studies/SS2_UK_Pathfinder_programme.p df

JB:Here is a series of YouTube videos that capture *a global conference on managed retreat.*, *apparently very useful discussions in there and in what might be future directions for NZ* - <u>https://www.youtube.com/playlist?list=PLPmPmV9ZCh-j4kDmg0qGUOaBQ0kUEPb83</u>

Wharekawa Coast Community Meeting – project is very similar to our, but a smaller stretch of coastline

All risks approach by NZ insurers

Three fundamentals



Insurance transfers risk from the insured to the insurer - it <u>does</u> <u>not reduce the risk</u>

Unless climate change risks are reduced, insurers will respond through price, increasing excesses, exclusions or refusals, so reducing the availability and accessibility of insurance, but this will occur incrementally

Banks rely on insurance to underwrite their mortgage lending risk; if there is no insurance, all the risk falls on homeowners this will likely significantly depress asset values

Will happen incrementally, not all at once

Data is the key



Risk for insurers is a financial sum based on:

Frequency × Severity = Average Annual Damage (AAD)

Frequency based probability of event in any one year

Severity is a measure of actual damage incurred due to any given event; this can be estimated by models using historic events, house type and age

Traditionally, risk rated on historic losses

Data is changing the game

 Multiple sources – councils, NZGD (geo-technical database), GNS, LINZ, mix of open source/specialist suppliers, e.g. CoreLogic or models
 Type of data – flood maps, hydrology, topography, Lidar, coastlines, landslips, fault lines

Insurers' own models - some larger insurers have their own models

Move from community to risk-based pricing or a mix of the two

Community based - all pay the same regardless of likelihood of risk, e.g. EQC levy

Risk-based - differentiated pricing reflecting risk + financial incentive to manage it

What is Insurance Retreat?

Retreat

Te Kāhui Inihua o Aotearc

(1) Retreat

- will occur incrementally, but pick up pace if climate impacts accelerate
- first steps will involve premium increases/increases in excess, then limits to cover, e.g. flood exclusion
- there will be signals from other sources too, e.g. local council
- Climate Change Adaptation Bill/Act (2024?) will empower councils to manage retreat regardless of insurance signals

(2) When?

- depends on the local impacts of climate change
- because it is incremental and each insurer has a different risk
- appetite and commercial responses it will not happen uniformly
- academics have tried to estimate when this might occur using basic assumptions

Storey Research



Reviewed international patterns to see when insurers start to partially retreat (apply higher excesses/premiums) and when they fully retreat from flood cover

Concluded that

- the 1:50 year flood recurrence triggers partial retreat
- the 1:25 year flood recurrence triggers withdrawal of cover

Reviewed climate change scenarios (RCP 2.6, 4.5 and 8.5) and concluded

- until 2040 little difference in sea-level rise impact
- but a small sea-level change (e.g. 5-7 cm) can double flood recurrence, e.g. 1:100 year event becomes a 1:50 year event (NB this is just SLR and does not account for storm surges)

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Do resilience measures affect insurability?

What affect do climate change adaptation strategies have on insurance?

Impact of resilience measures

Yes, risk reduction measures can reduce premiums/excesses – examples being Flockton Basin in Christchurch, Roma in Queensland, but remember though:

- house insurance is based on all perils, so premium is not just about flood
- premiums will reflect how granular the risk is assessed property, suburb, post code or regional level
- what level of resilience are we talking about? How affordable is this, specially for small communities and low rateable base? How much will central government contribute?
- what will a cost-benefit analysis conclude?
- there are many other much better reasons to become resilient than insurance - socio-economic disruption, asset value decline, loss of amenity values

What do we do if increasing risk is the "new norm"?



(1) Apply a risk management framework - control, avoid, transfer or accept

(2) Accept climate change requires a paradigm shift in thinking – we can' continually react, clean up and stay put

(3) If we protect – what are the limits to this approach, acknowledging some risk will always exist?

(4) Anticipate and adapt - build back better or somewhere else

(5) Take an adaptive pathway – work with uncertainty, think about timely interventions and investment (not too soon nor too late)

(6) Rethink land use planning - reduce, hold or avoid the increasing risk

Three fundamentals



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Unless climate change risks are reduced, insurers will respond through price, increasing excesses, exclusions or refusals, so reducing the availability and accessibility of insurance, but this will occur incrementally

Banks rely on insurance to underwrite their mortgage lending risk; if there is no insurance, all the risk falls on homeowners this will likely significantly depress asset values

AM - Insurance retreat could occur prior to an event occurring

AC - <u>https://www.rnz.co.nz/news/business/455339/tower-insurance-changes-flood-risk-pricing-reduces-part-of-premium</u> another side of the insurance retreat story

- More granular understanding of risk on property may be charged less (as less risk) or more (for more risk)
- 2. Large Insurance companies in NZ are aware of the higher risks in NZ

5. Presentation from Waka Kotahi – David Speirs

Adaptation and Land Transport

Waka Kotahi commends TCDC and panels on the work and where they have got to. Well ahead of anyone else including Waka Kotahi, so are taking the lead & learnings from TCDC

Today

Climate change is changing the risk to New Zealand's transport networks

We recognise the importance of **access** for communities

We know climate change will increasingly challenge some parts of the transport system and the fitness of current approaches in Waka Kotahi

National Resilience Programme Business Case - June 2020 • An evidence base and risk prioritisation methodology that identified and rated nationally important natural hazards risks (including climate change-related) in the New Zealand land transport system.



Over 11,000km of road to manage. Much of the road is coastal and can suffer from flooding/slips etc

Today

Maintain level of service on SH25

We will continue to maintain the current level of service on SH25

We will:

- · respond to events as they occur
- reinstate SH25 access to current levels of service.

We won't be able to commit to a long term pathway for some time.



Currently can't commit to what a long-term pathway looks like (10yr horizon). Funded in 3 year cycles we are in 21 - 24 NLTF (over-committed) next funding cycle is 24-27

Looking to change ahead

Legislative, planning and policy changes

We're in the middle of many changing systems

This includes a **new Natural and Built** Environments Act and a new Strategic Planning Act

These Acts will encourage adaptation pathways planning over a 100-year timeframe, across the range of adaptation options to reflect different community needs

New requirements under the Zero Carbon Act

- Emissions Reduction Plan
- National Adaptation Plan

Looking to change ahead

Assessing transport network risk from climate change hazards

Need our own detailed understanding of local risks

We are currently developing our Risk Assessment Framework to assess climate change risk

We're building our adaptation capability



Very broad look at the issues – National Climate Adaption Action plan by end of 2022 (will be at a high level, rather than specific issues)

Building evidence – SH25

Looking to learn

How the SMP is helping us

The SMP is valuable to help guide our potential options for climate change nationally

Need to work closely with and through WRC and TCDC to:

- integrate the work and insights in our own assessment process to ensure we are all aligned
- engage with iwi and communities

SH 25 has every example of a risk that could be found anywhere in the country

Money for maintenance, but not for the scope of raising / re-directing roads etc in the current cycle. Need to look at reallocation of money for future cycles. Will integrate TCDC work into their next NLTP.

Working together

Specific risks identified through SMP

Both Waka Kotahi and local government have a critical role in planning and developing the land transport system to keep everyone moving



KL - can we see any change to the one lane bridge situations in the next 10 years

DS - with the exception of Pepe Bridge in Tairua, that is correct

JR – do you have data that could help influence the actions taken/recommended for environmental protection

DS - in the context of SH25 the road may become the protection

GO – visitor flows onto and off the coromandel – how do we influence the priorities for this area particularly around one lane bridges

DS – came in on the back of the last NLTP process. Prioritization comes from telling the story in its fullest form. Strategic plan/special planning etc needed, needs to be about resilience, community & economic growth, tourism etc as well. Should we be exploring coastal shipping to take the pressure off SH25 – need the conversations.

6. Proposed approach to community consultation events - March/April and June 2022

Committee meeting on Friday – 4 items, Feasibility study, pathways, progress update and comms & engagement strategy update (which is the key one)

Challenging with Covid situation.

Topic	Jan 22	Feb 22	March 22	April 22	May 22	June 22	July 22
Outputs	Updated Comms Plan and Protection Feasibility Study	Draft Adaptation Plans	Draft SMP / Revised Adaptation Plans	Revised SMP / Adaptation Plans	Final draft SMP / Adaptation Plans	Asset pathways RPT / ¿-Report	Final SMP / Coastal Adaptation Plans
TAG meetings	TAG M11	TAG M12	TAG M13	TAG M14	TAG M15	TAG M16	
SMP Governance Meetings		SMP CoC M5 – 10 th February (cancelled)	SMP CoC M5 Presentation 1 to WRC Climate Change Committee – 10 ^{di} March		SMP CoC M6 – Draft Plan and commitments Presentation 1 to Regional Transport Committee		SMP CoC M7 - Adoption of the SMP Presentation 2 to WRC Climate Change Committee
Coastal Panels	M10: Thresholds and triggers; comms; 17 th – 20 th Jan		M11: Pathway wrap-up and preparation for community events; 8 th – 11 th March		M12: Draft Adaptation Plan review		
Wider Community involvement			On-line Targeted Public Consultation – Moanafäiari, Hikuai & Ohuka	On-line Public Consultation – Thames, Te Puru, Colville, Kuaotunu, Kennedy Bay, Whitianga, Tairua, Pauanui & Whangamata		Face to face Public Consultation – various locations across the District – opportunity for written feedback	

Want to go out to targeted consultation asap Hikuai and Moantairi in particular, plus Brophy's Beach.

Will do an online presentation for public - Then go out to Public - Face to Face in June

Or scarp the online and wait for the face to face and move the meeting #12 out

Referenda can't be done for next step, but could work for the presentation of the final Plan to the public

7. Next Meeting (May 2022 TBC) and Meeting closed 4pm

Actions Table – SMP 11 March 2022

No.	Action	Responsible	Status
13	Awareness of the SMP Project to be raised with WRC / the Regional Transport Committee	TCDC/WRC officers	In progress - presentation to be provided to the WRC Climate Action Committee first (10 March 2022). Presentation to the Regional Transport Committee to follow.
34	Further work required re. combined flooding events in Kuaotunu West (Kennedy Bay and Hikuai)	RHDHV AM	For Kuaotuna West and Kennedy Bay, see Agenda re. updated adaptation pathways. Targeted consultation planned for Hikuai in February 2022 and Kennedy Bay in March 2022. – delayed due to Covid
40	WRC to provide a frequency assessment for Whitianga Tide Gauge (to be assessed by NIWA)	RL (WRC)/JB	Still to come. Waiting to hear back from WRC.
43	Look at adding filter to online comment tool to group by age/location etc.	Project Office	Not progressed (to date) due to the aspiration to keep the tool simple. Could be revised for March 2022 consultation events.
45	Need to inform Pauanui of the re- analysis of data prior to any specific meeting. Pauanui Post & rate payers Association. URGENT	AM	New hazard lines to be made available to community ahead of the March/April on-line meeting for Pauanui.

47	Concept design to be produced for Whangamata	RHDHV	Concept to be presented as part of SE CP Meeting
49	PU# 140 Whangamata South – may need to engage with specific property owners	Project Team	Held up due to covid
50	Review contaminated site data to determine influence on adaptation pathways (e.g., PU#29 – Wharf Rd Coromandel, regarding mullock from the mines)	RHDHV	In progress - will be documented in the environment report
51	Add a box indicating a combined river/coastal analysis needs to be considered to refine the pathways	RHDHV/WRC	
52	Change wording from 'seawall' to protection to better reflect all of the options available	RHDHV	
53	Adjust PU#127 Pauanui Beach trigger as signal has been reached (SE)	RHDHV	
54	PU#136 Wentworth River East Will update poster to show longer term pathway more clearly (SE)	RHDHV	
55	PU#140 Whangamata Beach South. Re-look at the retrofit storm water trigger (SE)	RHDHV	
56	PU#1 in brackets (unless adapted) needs to be better defined	RHDHV	
57	PU#2 Need to add 'in appropriate places' after Maintain/Rehabilitate mangrove (Thames)	RHDHV	
58	PU#3 SJ – will look specially if A & G Price building is at risk (Thames)	RHDHV	
59	PU#15 look at why improving the revetment was suggested and if it has to do with the road (Thames)	RHDHV	
60	PU#110 need another line added as need to deal with southern end of the beach	RHDHV	

	differently than the		
61	northern/carpark end. (MB) *Note MB area description should be New Chums to Hot Water Beach on all paosters	RHDHV	
62	PU#102 'avoid development in Hazard prone areas' should be now – will be adjusted – make trigger restriction of access e.g. flooded 4 times a year	RHDHV	
63	PU#99 Change to show alternatives (MB)	RHDHV	
64	PU#98 reflect it is a 'live' situation in terms of the resident's rock wall (MB)	RHDHV	
65	Meeting to confirm approach at Kennedy Bay & plan going forward	AM/JA/SP	
66	Follow up on Patukirikiri work with contamination team (Coro)	JB	
67	PU#26 another layer of info from Geo Tech maps has identified there is a slip risk in this area. Will look to see if this has been overlayed on this PU & Review this area and look at raise the road being added to pathway. (Coro)	RHDHV	
68	PU#30 update pathway to add issues as discussed (Ruffin's Bay access is private rd) (Coro)	RHDHV	
69	PU#31 update pathway regarding the Campground and inundation, overlay Geo Tech erosion map & consider that pathway looks like we can maintain the defences to longer than we can (Coro)	RHDHV	
70	PU#32 update pathway we are missing 'maintain natural defences' here as well	RHDHV	
71	PU#36 update pathway to reflect relocation strategy – and Urupa inundation (Coro)	RHDHV	

72	PU#38 plan for change when signal is reached' doesn't mean anything - update wording	RHDHV	
73	PU#101 'Guiding Principles & 'Equitability' need discussion (MB)	AM	For discussion at next meeting