Minutes

SMP Coastal Panel Meeting 12: Coastal Adaptation Plans

Times & Date:	Coromandel Coast 9:30am-12:30pm Wednesday 25/05/22
Venues:	Coromandel Council Boardroom or MS Teams
Chairperson:	Jan Autumn (Coromandel)
Attendees:	TCDC - Amon Martin, Jamie Boyle, Karen Moffatt-McLeod SMP Consultant (Royal HaskoningDHV) – Sian John, Nick Lewis & Mitchell Crotty Via Teams Coastal Panel Members: Dave Currie, Mike Donoghue, Kate James, Neville Cameron, Dean Jenkins via MS Teams, WRC: Adam Munro
Apologies:	Nicole Ward
Observers:	TCDC Councillors – Tony Fox

Meeting Objective

Review and sign-off of draft Coastal Adaptation Plans for submission to the SMP Committee of Council and public consultation.

Agenda Items

1. **Introduction**

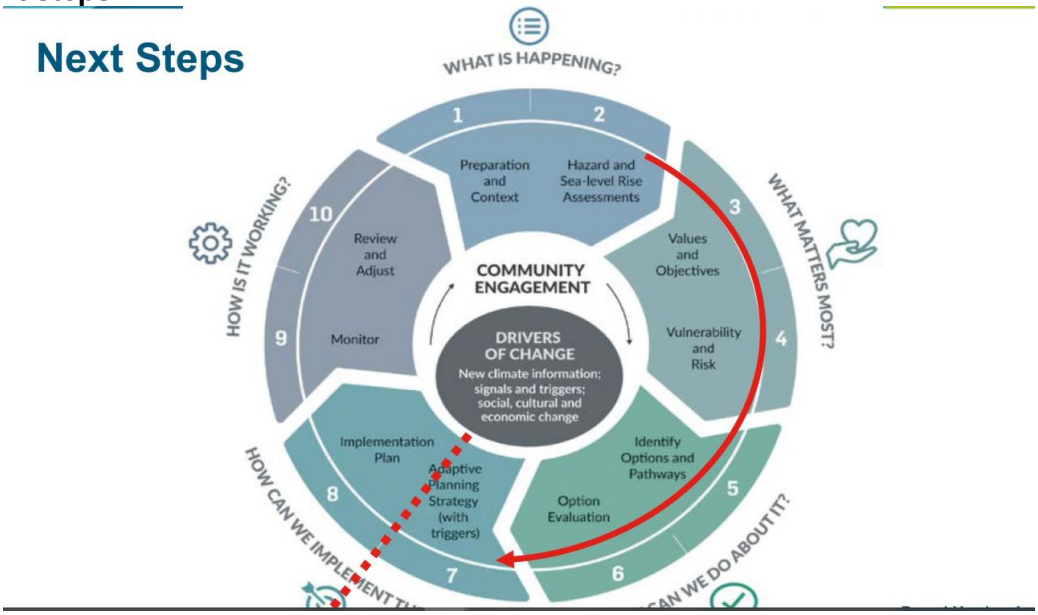
2. **Progress:**

- Minutes of Meeting 11 (March 2022) moved JA, 2nd DC - carried

- **Review of Actions**
  Updated table below – and further on #66 Kennedy Bay PU29:

Focused consultations in 10 locations – Kennedy Bay was one of those. Particularly concerned that they wanted to develop their own plan and for it to be led by the people of Kennedy Bay. They felt that the process was not a community lead process. From a district perspective, AM believes it is community lead.
Can't go back and rush to get approval from them, they want/need time to digest the information. There is another meeting in approx. 3 weeks to talk about how to engage with the rest of their community. Will be an on-going development.

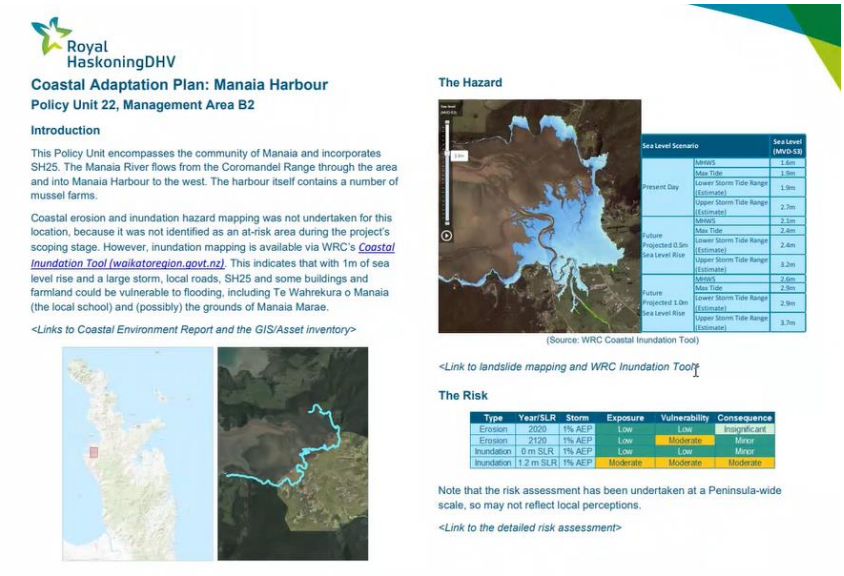
3. Next steps



4. Feedback on draft Coastal Adaptation Plans

- Comments from the community
- Comments from the Coastal Panel
- Agree any updates

Some PU's where we should reference Landslips risks, and perhaps haven't. We can add a note to the plan to indicate we are aware of the risk of landslips. (Wharf Rd +)



Royal HaskoningDHV

Coastal Adaptation Plan: Manaia Harbour

Policy Unit 22, Management Area B2

Introduction

This Policy Unit encompasses the community of Manaia and incorporates SH25. The Manaia River flows from the Coromandel Range through the area and into Manaia Harbour to the west. The harbour itself contains a number of mussel farms.

Coastal erosion and inundation hazard mapping was not undertaken for this location, because it was not identified as an at-risk area during the project's scoping stage. However, inundation mapping is available via WRC's *Coastal Inundation Tool (waikatoregion.govt.nz)*. This indicates that with 1m of sea level rise and a large storm, local roads, SH25 and some buildings and farmland could be vulnerable to flooding, including Te Wahrekura o Manaia (the local school) and (possibly) the grounds of Manaia Marae.

<Links to Coastal Environment Report and the GIS/Asset inventory>

The Hazard

(Source: WRC Coastal Inundation Tool)

<Link to landslide mapping and WRC Inundation Tool>

The Risk

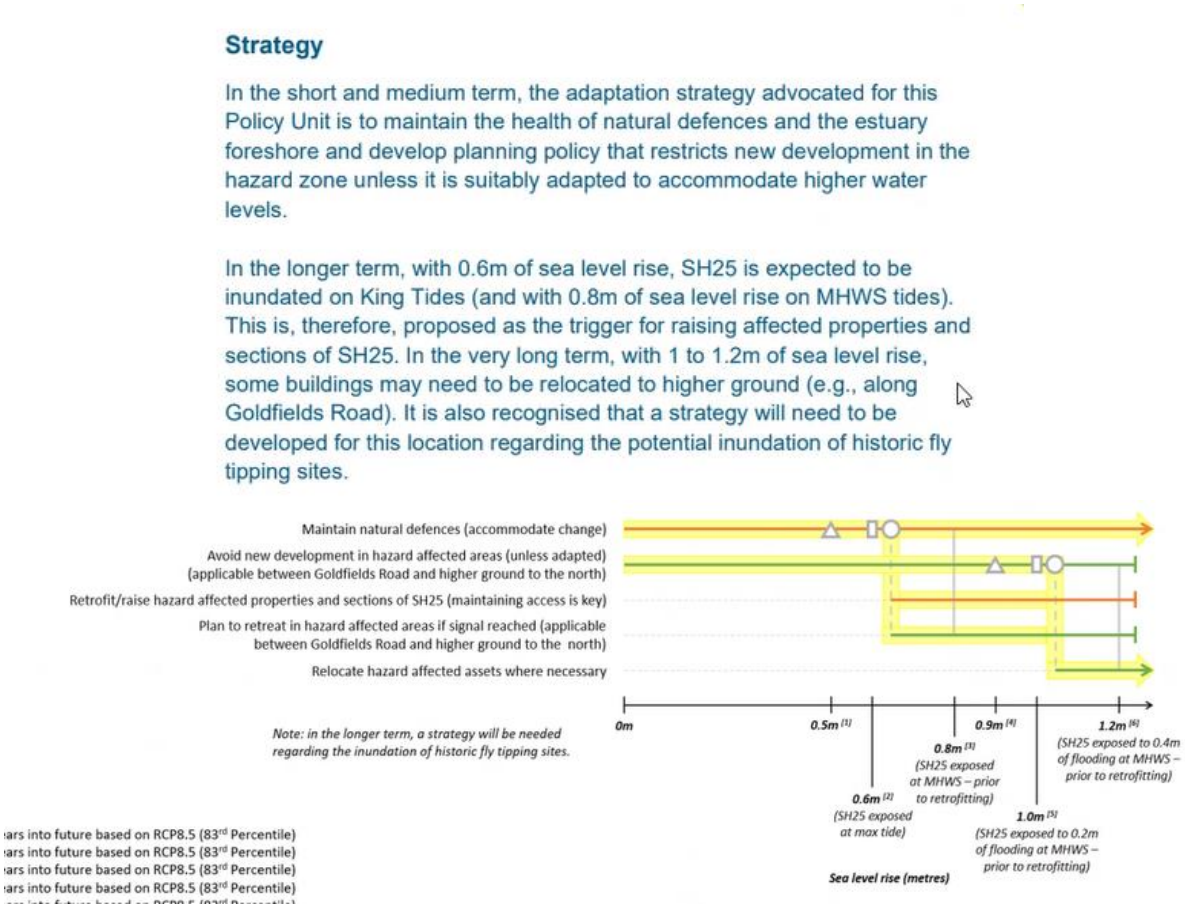
Type	Year/SLR	Storm	Exposure	Vulnerability	Consequence
Erosion	2020	1% AEP	Low	Low	Insignificant
Erosion	2120	1% AEP	Low	Moderate	Minor
Inundation	0 m SLR	1% AEP	Low	Low	Minor
Inundation	1.2 m SLR	1% AEP	Moderate	Moderate	Moderate

Note that the risk assessment has been undertaken at a Peninsula-wide scale, so may not reflect local perceptions.

<Link to the detailed risk assessment>

Final report & Maps will be able to be clicked on when online, plus a links to the Hazard Maps, interactive maps, link to modelling, methodology etc . These sit alongside the Shoreline Management Plan (also available on line). There will be a written report – may need to print at A3 size for people to look at – perhaps at the Council Offices.

PU22 – Manaia



Strategy

In the short and medium term, the adaptation strategy advocated for this Policy Unit is to maintain the health of natural defences and the estuary foreshore and develop planning policy that restricts new development in the hazard zone unless it is suitably adapted to accommodate higher water levels.

In the longer term, with 0.6m of sea level rise, SH25 is expected to be inundated on King Tides (and with 0.8m of sea level rise on MHWS tides). This is, therefore, proposed as the trigger for raising affected properties and sections of SH25. In the very long term, with 1 to 1.2m of sea level rise, some buildings may need to be relocated to higher ground (e.g., along Goldfields Road). It is also recognised that a strategy will need to be developed for this location regarding the potential inundation of historic fly tipping sites.

Maintain natural defences (accommodate change)

Avoid new development in hazard affected areas (unless adapted) (applicable between Goldfields Road and higher ground to the north)

Retrofit/raise hazard affected properties and sections of SH25 (maintaining access is key)

Plan to retreat in hazard affected areas if signal reached (applicable between Goldfields Road and higher ground to the north)

Relocate hazard affected assets where necessary

Note: in the longer term, a strategy will be needed regarding the inundation of historic fly tipping sites.

0m

0.5m [1]

0.6m [2] (SH25 exposed at max tide)

0.8m [3] (SH25 exposed at MHWS – prior to retrofitting)

0.9m [4]

1.0m [5] (SH25 exposed to 0.2m of flooding at MHWS – prior to retrofitting)

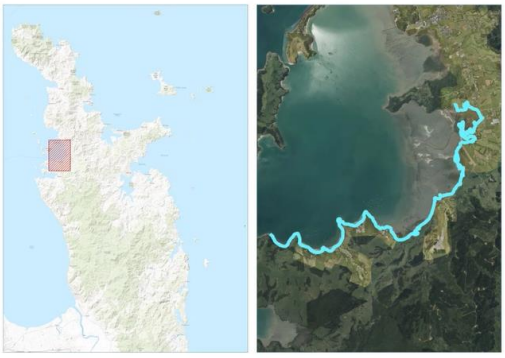
1.2m [6] (SH25 exposed to 0.4m of flooding at MHWS – prior to retrofitting)

Sea level rise (metres)

ars into future based on RCP8.5 (83rd Percentile)
ars into future based on RCP8.5 (83rd Percentile)
ars into future based on RCP8.5 (83rd Percentile)
ars into future based on RCP8.5 (83rd Percentile)

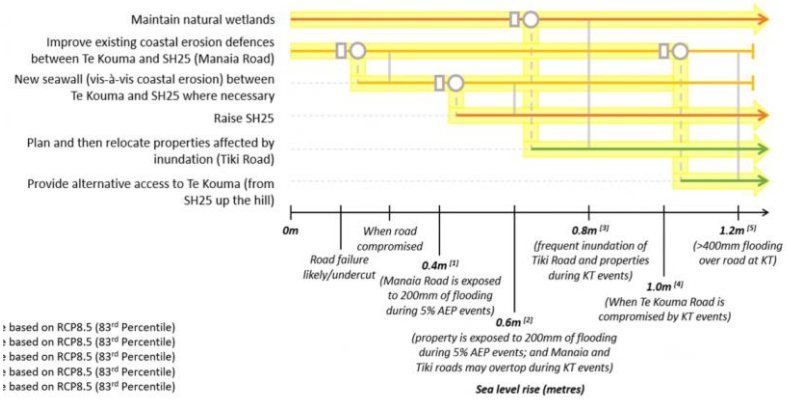
DC – there is an issue with land level rise on this side of the peninsula
AM – will be a change in terminology to 'relative' SLR which considers the land either raising or subsiding, but triggers remain the same (just may get to them later or sooner)

PU26 - Te Koumu to Preece
Includes landslip map



Strategy

The adaptation strategy for this Policy Unit is complicated by the fact that different hazards will influence different parts of it at different times. In the short term, the existing coastal defences along Manaia Road (which are being undercut by erosion) need to be improved, and this is likely to need to include the construction of a new seawall in some locations. In the medium term, coastal inundation is expected to begin to affect SH25 (Manaia Road), and access, with 0.4m of sea level rise and 5% AEP storm events; and SH25 (Manaia and Tiki Roads) should be raised. With 0.6m of sea level rise, properties seawards of SH25 are also expected to be exposed to flooding during 5% AEP events. Hence, at this point, planning to relocate affected properties needs to start. In the longer term, with 1m of sea level rise, Te Kouma Road is also expected to be flooded by King Tides. At this point the provision of an alternative access to the Te Kouma community should be considered (from SH25 to Kowhai Dr).



SJ – in southern parts there are immediate issues with erosion, other areas have medium – long term issues with inundation
KJ – should say Te Kouma rd. rather than Manaia Rd
AM – what are the priorities here? E.g. short-term defences, long term – alternative route

PU28 – Coromandel - Tiki Rd
SJ – query on why on the risk assessment it is at 'high' vulnerability when there is not much there at risk.

Strategy

The adaptation policies advocated for the Policy Unit are to 'Accommodate' and 'Avoid' the risk. That is, to maintain health of the natural defences and, as far as possible, restore wetland habitats. To this end policy should be developed that encourages and supports landowners to rehabilitate coastal margins and allow for the roll-back of habitats and sea level rises.

The avoid policy should be delivered by changing planning practices to restrict development in hazard zone.

Because this approach is valid for the entire (100-year) planning period and adaptation pathway (with triggers for change) has not been developed.

JA – current subdivision and re-subdivision occurring here at the moment (contrary to the District Plan?)
KJ – need to adjust wording restricting future development and other use of the land e.g. landfill

No Pathway for this one and the strategy reflects this

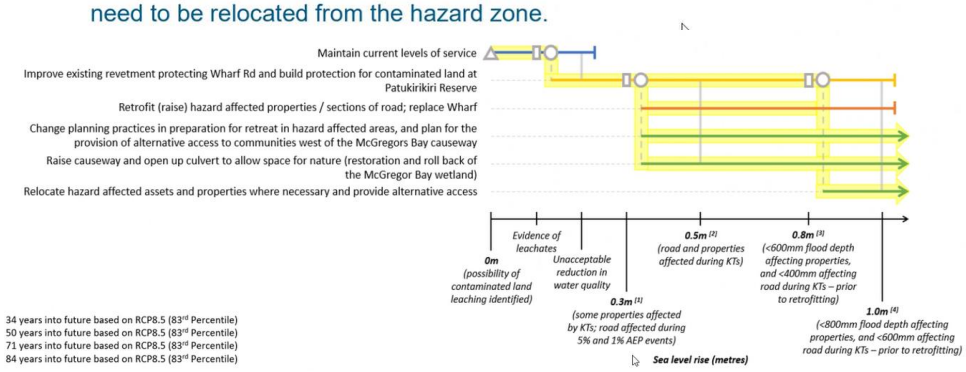
PU29 - Wharf Rd (and McGregors)

Strategy

In the short term, the adaptation strategy for this Policy Unit is to maintain current levels of service and plan to improve the condition of the existing revetment protecting Wharf Road and protect the contaminated land at Patukirikiri Reserve; then implement this.

In the medium term, with 0.3m of sea level rise, some areas will be affected by flooding during King Tides and Wharf Road will be affected during 5% AEP and larger storm events. This is the proposed trigger to raise hazard affected properties and sections of the road (including the causeway), and to replace the Wharf. It is also the trigger for planning for retreat in the hazard zone and the provision of an alternative access to communities west of the McGregors Bay causeway, and opening the culvert to allow for the roll back of the wetland.

In the long term, with 0.8 to 1m of sea level rise, some properties are likely to need to be relocated from the hazard zone.



SJ – possibility to bridge the stretch of road rather than find an alternative route
MD – if the water goes over the wetland more, it will be estuary rather than wetland.
AM – if road is raised it might compromise the wetland from re-establishing. Pathway needs to be made clear that raising the road is not protection for the land owners, rather to protect access
SJ – do we need to replace the Wharf?

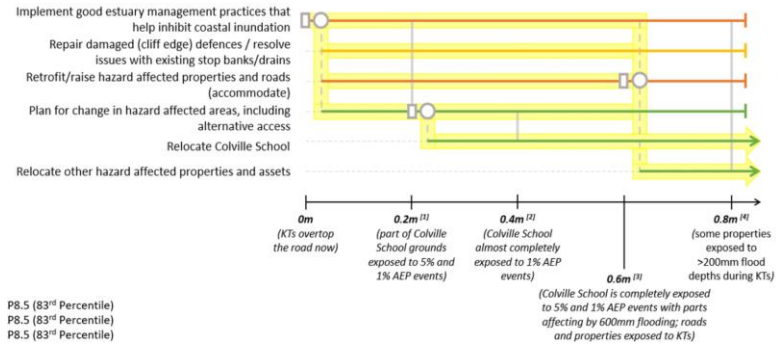
PU44 – Colville

Strategy

The adaptation strategy advocated for Colville Estuary and Bay includes several actions to be implemented as soon as possible. These include implemented good estuary management practices (including planting); repairing existing damage to defences that protect the road; resolving drainage issues relating to the existing WRC flood protection stopbanks; retrofitting and/or raising properties and roads in the flood hazard zone; and planning for change/retreat.

In the short to medium term, with 0.2m of sea level rise, it is predicted that parts of Colville School's grounds will be flooded by storm events larger than 5% AEP events. This is, therefore, proposed as the trigger to being the process of relocating the School. In the longer term, with 0.6m of sea level rise, roads and properties in the town centre and elsewhere will be flooded by King Tides. This would be the trigger for retreat from these locations more generally. A 'Protect' policy is not being advocated for Colville because it was not supported during consultation with the community on the protect solutions[1].

JA – area (Wharf Rd) below the Colville School which is more likely to be flooded before the school would be.
SJ – 3rd one on Pathway includes Wharf Rd



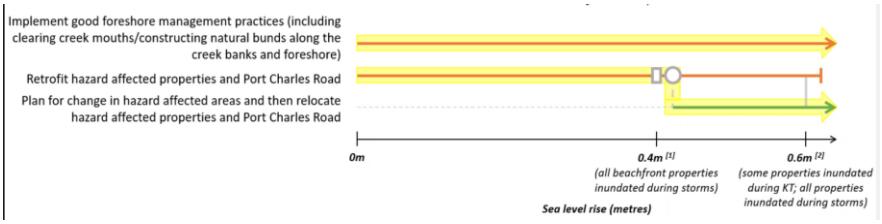
AM – As Colville is an access way to the northern Coromandel, do we need in the special planning to provide a centre for the town (as talk about relocating school and some other areas). Where does the school go? How does the town grow?
MD – still need to look at access to any new location as well
JA – long term it may need to be accessed from Waitete Bay
SJ – will include next steps in the strategy and Wharf Rd area

PU59 - Sandy Bay

Strategy

The adaptation strategy advocated for this Policy Unit includes the implementation of good foreshore management practices, potentially involving clearing the creek mouth, and constructing natural bunds along the creek banks and foreshore to limited inundation from the river and the sea. In parallel, properties in the hazard zone and port Charles Road should be retrofitted/raised (where necessary) to accommodation flooding events.

In the future, with 0.4m of sea level rise, all beachfront properties will be flooded during storm events (with 0.6m of sea level rise some properties will be flooded by King Tides). At this stage (0.4m), planning for retreat should begin, followed by relocation. The connection with Port Charles via the road, however, should be maintained (and is likely to required cliff stabilisation works, see Policy Unit 60).



JB had suggested last time that there could be measures to 'buy' time in this area
SJ – may need to add a note regarding fluvial flooding

PU60 - Port Charles

Introduction

INTRO TEXT

- Isolated rugged countryside.
- North facing beach, vulnerable to tsunamis.
- The Tohoku-oki earthquake of March 2011 generated a tsunami that impacted this area.

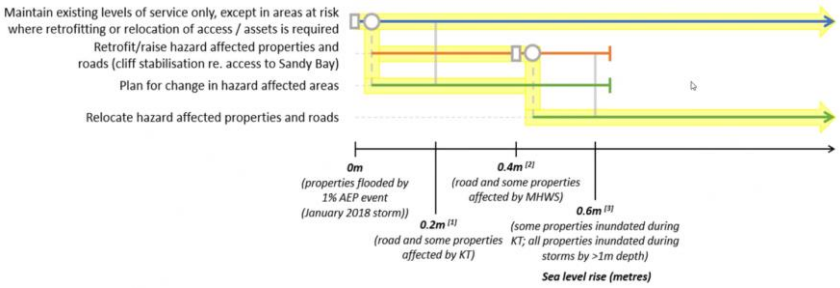
Inundation mapping due to storms and sea level rise (as opposed to tsunamis) is available for Port Charles via WRC's *Coastal Inundation Tool (waikatoregion.govt.nz)* and the Local Plan includes Current and Future Coastal Erosion Lines. This indicates that with 1m of sea level rise and a large storm, almost the entire bay and most properties (all properties on the coastal plain) will be flooded. The erosion lines indicate that the road is vulnerable in the southern part of the bay and properties to the north.

SJ – have acknowledged tsunami risk in this area in the intro

Strategy

The adaptation strategy advocated for this Policy Unit in the short term is to maintain existing levels of service in general and to retrofit/raise properties and roads in the hazard zone. This is likely to need to include cliff stabilisation works on Port Charles Road to maintain access to Sandy Bay and the north (ensuring that the Sandy Bay community is not isolated).

In addition, planning for change needs to be initiated in the short term. The road and some properties were flooded during the January 2018 storm event (in the south of the bay) and, with 0.2m of sea level rise, could be affected by King Tides. With 0.6m of sea level rise, a large storm event is likely to cause substantial damage (and potentially risk to life) due to significant flood water depths. Prior to this, properties within the hazard zone should be relocated to higher ground.



MD – how are these isolated communities going to continue to interact with the rest of the world. A number of areas will have issues in years to come, so we need to look at services and how they can continue to be provided. E.g. sea transport

SJ – Waka Kotahi are already thinking about what would happen if we didn't have SH25. But we want to continue to encourage them to continue the level of service on the existing roads.

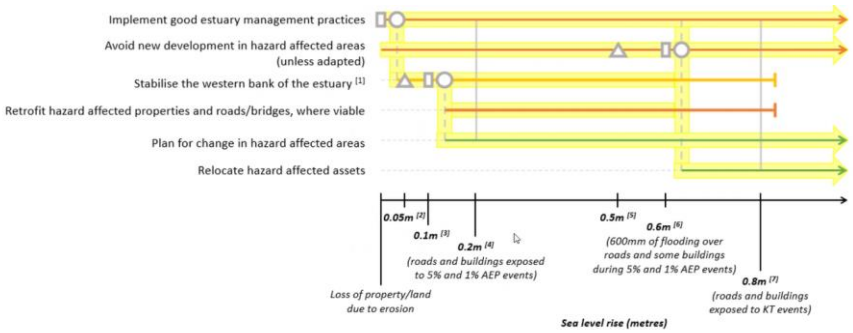
PU68 + 69 - Kennedy Bay

Strategy

The community in Kennedy Bay is cohesive and want to implement community lead actions, supported by TCDC and WRC. The strategy for the estuary in the short term is to avoid new development in the identified hazard zones (unless it is adapted for the hazard), plan to retrofit existing properties and roads where necessary, and implement stabilisation measures on the western bank of the estuary. In time, say 50 years, with continued sea level rise some assets are likely to need to retreat from the hazard zone.

Next steps need to include assessment of the combined influence of coastal and fluvial/pluvial flooding. As well as the development of a community lead implementation plan.

SJ – remove "is cohesive and' from strategy statement



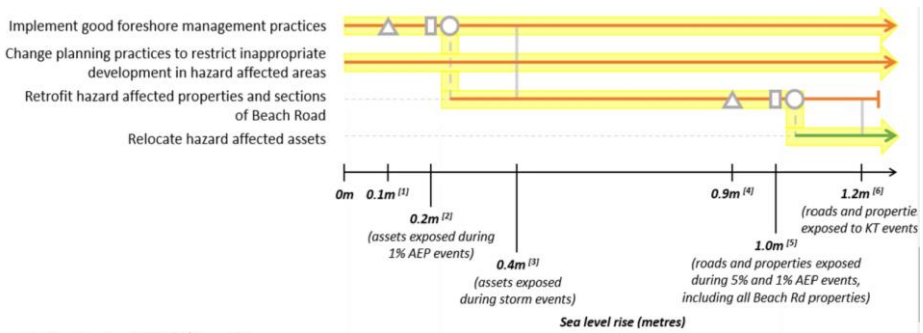
JA – are they talking about a new development in a hazard effected area?

KJ – is there a definition on what 'restrict' or 'avoid' development means?
SJ – needs to be written up
SJ – needs to be more discussion on the urupa's as community disagree that the visible one's are not at risk. They are also aware of other urupa that are not visible.

Strategy

The community in Kennedy Bay is cohesive and want to implement community lead actions, supported by TCDC and WRC. The strategy for the beach in the short term, in addition to good beach management practices, is to restrict new development in the identified hazard zones (unless it is adapted for the hazard) and plan to retrofit existing properties and sections of Beach Road, where necessary. In the future, say 85 to 90 years, with continued sea level rise some assets are likely to need to retreat from the hazard zone.

Next steps include the development of a community lead implementation plan.



JA – suggests what they are talking about is outside of the 'scope'. TCDC have talked to people/experts about this, and panels are restricted to recommending within the 'scope'. Maybe change the language as we need to report what has been done so far. Make it clear we are 'reporting' on what we have found and discussed within the coastal panels' scope.
AM – maybe add, further community feedback is needed before finalising the implementation.

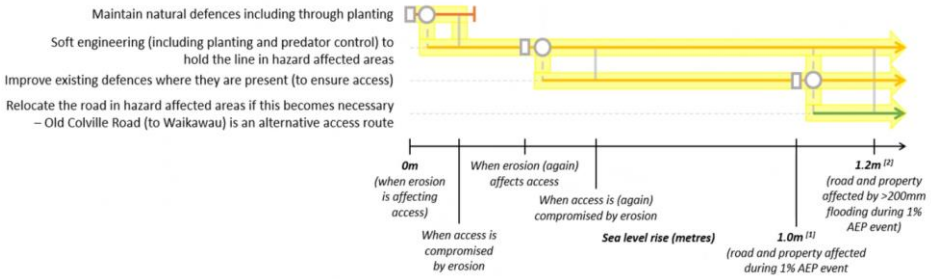
PU40 – Waitete Bay

Strategy

The adaptation strategy advocated in this Policy Unit in the short term is to maintain natural defences (where possible) through planting and undertake soft engineering here necessary. If erosion continues as predicted, in due course existing defences are expected to need to be improved to maintain the road (however, this could be at the cost of the beach). Setting the road back from the beach crest should also be considered.

In the long term, with 1.2m of sea level rise, the road is predicted to be flooded during large storm events.

MD – parts of the road
DJ – where creek and 'access' ramp is

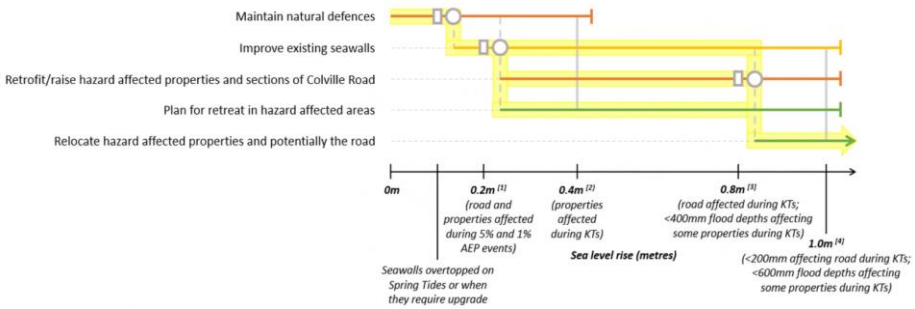


DJ – would like to see more rocks, but perhaps fill them in and replant to beautify

PU 32 – Kikowhakarere Bay

Strategy

The adaptation strategy for this Policy Unit in the short term includes maintaining and enhancing the natural defences as far as possible and improving the existing seawalls. With 0.2m of sea level rise, parts of the roads and some properties will be affected by storm events larger than and including 5% AEP events. At which point hazard sections of Colville Road and affected properties will need to be raised (where possible). Planning for retreat more generally will also need to occur. With 0.8m of sea level rise, several properties (depending on their elevation) and the road will be flooded by King Tides and the retreat of this community will need to occur. This may require the road to be located further inland, to maintain access to communities to the north (including Colville).



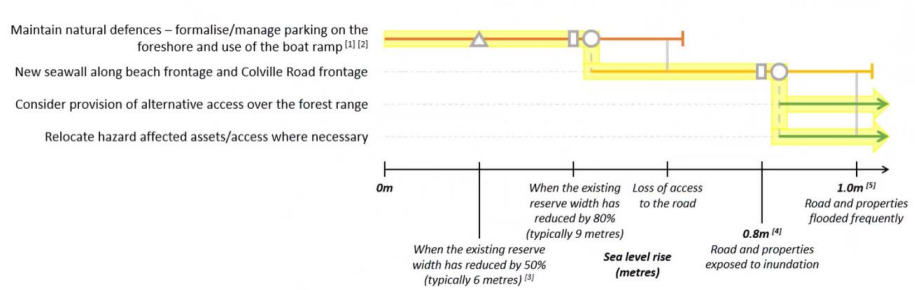
MD – what further planting are you thinking about?

34 – Oamaru

Strategy

The adaptation strategy advocated for this Policy Unit is to formalise and manage parking on the foreshore and use of the boat ramp, in order to maintain the natural defences against erosion (the foreshore and reserve) for as long as possible (this could be achieve by constructing a retaining wall at the edge of the reserve but the effects in the beach would need further consideration). In time, when the erosion scarp reaches the road (sometime after 2040, based on the rate of climate change), a seawall will need to be constructed seaward of the road. At this point the beach will be lost, but access to the water and communities to the north will be maintained.

In the longer term, with 0.8m of sea level rise, the road some properties are predicted to be exposed to inundation from the sea. At this point the viability of providing an alternative access over the forest range may need to be investigated and hazard affects assets relocated.



JA – boat ramp is a privately owned ramp, so not sure what jurisdiction TCDC has over it.

Summary of round the table comments:

Thank you from AM (wider Council & Community) to the Panel for their work over past 2.5 years, has enjoyed leading the project.
JA – the input all brought to this has been great. Panel are long term residents and have provided valuable information to reach the outcome we have. It has been an outstanding process to see what has been achieved over the last 2 years.
DC – really enjoyed the process and thankful to be involved
NC – thank you – flies around the peninsula often interesting to get this perspective
MD – always a pleasure to work with professionals and have evidence-based scenarios. Acknowledges JA
KJ – enjoyed it, and enjoyed the team we have become
SJ – the input you have provided as a panel particularly the local knowledge has been invaluable to this project
JB – same from his perspective, particularly that local knowledge
NL – echoes what JB & SJ have said. Everyone has been fully engaged.

TF – endorses what everyone has said about this. When this comes before Council, I do believe their Local Government and other Agencies are who recognise specific projects that Councils undertake. For me this has been the biggest, most significant and complete project he has seen since he has been on council; due to Community engagement. Would like to get this into a national arena to provide a template for others to follow this example. Hopes whoever is the Government of the day recognises the significance of this work. National issue needs some help.
Wonderful project, Amon & Team, Sian & team for expertise, I just endorse what you have done again.
DJ – has enjoyed the process and professionalism of the group. Grateful to be involved

Meeting closed at 12.30pm
Actions Table – SMP 11 May 2022

No.	Action	Responsible	Status
13	Awareness of the SMP Project to be raised with WRC / the Regional Transport Committee	TCDC/WRC officers	Completed – Amon presented at the committee meeting Monday last week (Tony Fox in attendance). On Tuesday presented at the policy & strategy meeting.
34	Further work required re. combined flooding events in Kuaotunu West (Kennedy Bay and Hikuai)	RHDHV AM	Completed
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. **Closed**
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. Item closed but may come into the final delivery of the SMP Project Plan. **Closed**
45	Need to inform Pauanui of the re-analysis of data prior to any specific meeting. Pauanui Post & rate payers Association. URGENT	AM	Completed
47	Concept design to be produced for Whangamata	RHDHV	Completed
49	PU# 140 Whangamata South – may need to engage with specific property owners	Project Team	Completed
50	Review contaminated site data to determine influence on adaptation pathways (e.g., PU#29 – Wharf Rd Coromandel, regarding mullock from the mines)	RHDHV	Completed
51	Where Appropriate, add a box indicating a combined river/coastal	RHDHV/WRC	Completed

	analysis needs to be considered to refine the pathways		
52	Change wording from ‘seawall’ to protection to better reflect all of the options available	RHDHV	Completed
53	Adjust PU#127 Pauanui Beach trigger as signal has been reached (SE)	RHDHV	Completed
54	PU#136 Wentworth River East Will update poster to show longer term pathway more clearly (SE)	RHDHV	Completed
55	PU#140 Whangamata Beach South. Re-look at the retrofit storm water trigger (SE)	RHDHV	Completed
56	PU#1 in brackets (unless adapted) needs to be better defined	RHDHV	Completed
57	PU#2 Need to add ‘in appropriate places’ after Maintain/Rehabilitate mangrove (Thames)	RHDHV	Completed
58	PU#3 SJ – will look specially if A & G Price building is at risk (Thames)	RHDHV	Completed
59	PU#15 look at why improving the revetment was suggested and if it has to do with the road (Thames)	RHDHV	Completed
60	PU#110 need another line added as need to deal with southern end of the beach differently than the northern/carpark end. (MB)	RHDHV	Completed
61	*Note MB area description should be New Chums to Hot Water Beach on all posters	RHDHV	Completed
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	Completed
63	PU#99 Change to show alternatives (MB)	RHDHV	Completed
64	PU#98 reflect it is a ‘live’ situation in terms of the resident’s rock wall (MB)	RHDHV	Completed
65	Meeting to confirm approach at Kennedy Bay & plan going forward	AM/JA/SP	Completed

66	Follow up on Patukirikiri work with contamination team (Coro)	JB	JB will look into this
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	Completed
68	PU#30 update pathway to add issues as discussed (Ruffin's Bay access is private rd) (Coro)	RHDHV	Completed
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	Completed
70	PU#32 update pathway we are missing 'maintain natural defences' here as well	RHDHV	Completed
71	PU#36 update pathway to reflect relocation strategy – and Urupa inundation (Coro)	RHDHV	Completed
72	PU#38 plan for change when signal is reached' doesn't mean anything - update wording	RHDHV	Completed
73	PU#101 'Guiding Principles & 'Equitability' need discussion (MB)	AM	Completed
74	PU#72 - wording needs to be no development close to shoreline or allowing space for nature	RHDHV	Completed
75	PU#74 Relook at triggers & thresholds for this area – reflect on combination of coastal and river flooding	RHDHV	Completed
76	Re look at PU's with 80% dune loss triggers again to determine earlier trigger and how to determine & monitor	RHDHV/JB	Completed
77	PU#81 Remove 'investment not warranted"	RHDHV	Completed

78	PU#82 Update to indicate preferred strategy needs further thought and change signal to 50%	RHDHV	Completed
79	PU#84 Look at why ‘raise the road’ was recommended	RHDHV	Completed