

#### **Minutes:**

# Extended CAP Meeting – Paekākāriki Adaptation Area: Risk Assessments, Define Objective, Pathway Development and Define MCDA Criteria Weighting

#### Date: Friday, 9 February 2024

Location: Ngā Manu Nature Reserve, 74 Ngā Manu Reserve Road, Waikanae. Also, online (MS teams–link in invite)

**Time:** 1.00 pm – 6.00 pm

**Attendees:** Jim Bolger (Chair), Jerry Mateparae, Donald Day, Kelvin Nixon, Susie Mills, John Barrett, Moira Poutama, Martin Manning, Olivia Bird, Stephen Daysh, Derek Todd, Damian Debski, Iain Dawe, Jason Holland, Yvonna Chrzanowska, Alfred Lison, Oskar Temel and Abbey Morris

#### **Observers:** Sophie Handford

Apologies: Kate MacDonald, Mark Taratoa, Tim Sutton, Michael Moore, Glen Olsen and Sandhira Naidoo.

Agenda Item	Comments							
Opening & Introductions	Welcome: by Jim Bolger, Chair.							
Confirmation of	Jim Bolger, Chair							
minutes	<ul> <li>Jim motioned to move the minutes from the 13<sup>th</sup> December CAP Meeting be accepted.</li> <li>Don supported the motion to move the minutes and Olivia seconded the motion.</li> </ul>							
Project Update	Abbey Morris, KCDC provided a Project Update							
	<ul> <li>Abbey discussed that the Council Project Management Office has commissioned a wildlife survey report for the Paekākāriki seawall which could provide further ecological information on wildlife in the area, and which could potentially inform the ecological risk assessment for this area – depending on the timing of the finalisation of the survey report.</li> </ul>							
	• To address CAP's request to have an adaptation option similar to hard tiered structure like the Ecoreef design, TAG have included a new high level menu option for PAA (see #10 " <i>Re-establish the line with a setback protection structure</i> ").							
	• Derek explained that for the PAA, the difference between retreat adaptation menu options is that #9 (Retreat) would see retreat of a wider area, while #10 affects a smaller area because it would be coupled with a defence system (hard structure) to protect housing and infrastructure behind the structure. Option #10 would have retreat would occur to allow enough room for a setback structure, such as a tiered structure like Ecoreef, to have enough space to work effectively.							
	<ul> <li>Derek noted that currently in Raumati and Paekākāriki with the existing protection, there is not a big enough footprint available to build a tiered protection structure, like Ecoreef. He added that it would require a change in existing land use to enable this type of structure to fit – clearing the area behind and resituating a hard protection structure.</li> </ul>							
	• Kelvin asked if this adaptation option could also be used in Raumati. Abbey responded that CAP could take the opportunity to revisit the <i>"Re-establish the line with a setback protection structure"</i> menu item (moving away from a typical seawall within this package to an Ecoreef like one if the CAP desire) option for RAA, once the CAP finalises their recommendations for the RAA.							



	• Stephen confirmed that reestablish the line is in the RAA pathways, but the PAA description is more explicit, based on additional land needed to support the footprint required for a stepped structure.					
	<ul> <li>Olivia noted that road access to properties was also an important factor for retreat and asked if PAA menu description for #10 should also include retreating infrastructure in the description. CAP and TAG agreed, and the menu description was updated to include infrastructure assets.</li> </ul>					
Presentation of Risk	Derek Todd and Damian Debski, Jacobs (Facilitated information session with discussion)					
Assessments for Paekākāriki Adaptation Area	• Derek spoke to the PAA Risk Assessment Presentation (PowerPoint). He reminded CAP the 5 domains and noted that TAG was still awaiting additional information on the ecological domain given the wildlife survey report.					
	• Derek reminded CAP of factors considered during risk assessment, the process for calculating risk and how risks are ranked. He explained that the risk assessment uses MfE guidance and looks at both the SSP2-4.5 & SSP5-8.5 scenarios.					
	• He explained the PAA boundary is outlined in blue, explaining that some of QE Park is included in the northern part of this adaptation area. It is considered within the risk assessments; however this part of QE Park is excluded in the pathway options given that Greater Wellington Regional Council has jurisdiction of the Park and not Council. Note: more regarding this is covered during Developing Pathways section of the minutes.					
	• Built Environment Domain: Derek covered the elements that were assessed. The key point is that there is no public wastewater infrastructure, or natural gas supply in this area, therefore it has not been assessed.					
	• Kelvin asked if there was any long-term plan for reticulating wastewater for Paekākāriki. Jason responded that there was not. He added it is not in Long-Term Plan (LTP), but as part of Plan Change 2, they looked at feasibility in terms of cost for this to be done – it was very expensive.					
	• Derek explained the risk to elements from erosion. He noted that there are 761 properties (not dwellings) in PAA, with 127 located directly along the beachfront. By 2070, in both scenarios, these beachfront properties are at extreme risk.					
	• The next element most at risk is the water supply, which over time becomes high risk at 2070 (under both scenarios). This is followed by roads and bridges which come under moderate to high risk by 2070.					
	• Derek explained that the risk assessment is based on status quo – what is currently in place and with no further/any protection in place, with the lifetime of current protection structures (seawalls and rock revetments) are taken to account. By 2070 there is an added component of erosion that will impact the infrastructure elements due to no hard structures in place – this is applicable to either no new seawall being built or even if the proposed replacement seawall is built.					
	• Abbey noted that the new proposed replacement seawall is based on a 20-year design lifetime – so providing protection until approx. 2044.					
	• Damian spoke to the inundation risk. He noted that the Built Environment elements across all scenarios. Based on the topography of the area, the exposure to the effects of coastal surge and storm tides is low. There are a few areas of localised risk of inundation in the PAA, mainly along the Waikakariki and Wainui streams, where there could be run- up. Under the higher scenario, this means that exposure to risk is projected to impact 32					



properties at present day, 35 at 2050 and between 45 and 53 properties at 2130, but not necessarily impacting dwellings on those properties. He noted that there is localised risk from inundation for the Wellington Road bridge at 2130. Damian noted there was fluvial and pluvial flooding that impacted SH1 in recent times too, however as fluvial and pluvial flooding is not covered within the scope of this project, it is not assessed.

- Natural Character Domain: Derek presented Risk Assessment findings undertaken by Boffa Miskell which assessed CTA3 as having a moderate rating for natural character. This is due to it being alongside a built-up area, while QE Park has a high natural character rating. He noted that the northern part of the PAA includes a small portion of QE Park. Risks are predominantly low as there is a limited level of natural character at present, and any further erosion or inundation would leave it low. However, by 2130 in the CTA3 area, there would be a moderate level of risk is likely in both scenarios.
- Human Domain: Derek presented Risk Assessment findings undertaken by NIWA. Six elements were looked at including whether inequalities could be exacerbated, and impact to social cohesion and wellbeing. For erosion, based on the current situation, all elements start off low for erosion due to the existing seawalls in place. However as erosion projects do intensify over time, then the risk to most elements by 2070 increases to moderate, under both scenarios. By 2130, there is extreme risk for mental health and well-being and conflict, disruption and loss of trust in government at SSP 8.5. For inundation, the risks to human domain elements are low.
- Jerry asked why NIWA has been contracted to do human domain assessment. Abbey
  responded that NIWA has experienced social scientists who contributed to the MfE
  guidance regarding the human domain. Given that the human domain is a subjective and
  complex topic, Council determined that an experienced social scientist (who have
  experience in covering risk assessments for the human domain) was required. Once the
  risk assessments are finalised, they will be shared with CAP.
- Sophie asked whether it is the current or the potential like for like replacement seawall which is factored into the human domain risk assessment. Derek responded saying that the risk assessments are done based on status quo (do nothing scenarios), and information from the built environment risk assessment helps inform the human domain risk assessment. The current seawall is factored in, however beyond 2050, there is no seawall modelled.
- Jason asked for clarification on whether the assessment was related to current seawall only, or had it also factored in the replacement like for like seawall?
- Derek noted that the Jacobs hazard assessment was done 2 years ago. He confirmed that Jacobs used the lifetime assessment done by Tonkin and Taylor, and that the Paekākāriki seawall lifetimes are included in the erosion assessment. He added that at the time of the Jacobs Report, the LTP decision of the like for like replacement with 20-year design life had not been confirmed. *Note: The current Paekākāriki seawall has an assessed design life until 2025.*
- Jason added that the approx. 900 metres of seawall that does not have consistent quality and sections will be replaced in stages. He confirmed that because the replacement wall is in the LTP, this is the plan that the council is currently working to.
- Abbey explained that the approx. 900 metres replacement seawall relates to the wooden section, not the rock revetment on either side has a longer design life.
- Jerry noted that when explaining the LTP seawall upgrade to the community, it is confusing.



	• Stephen understood CAPs questions in relation to how risk assessment is established. He clarified with Derek that the assessment has been based on the state of the existing seawall not being replaced. Derek confirmed.
	• Stephen then reminded CAP that in the proposed pathway options for PAA, the status quo explicitly includes the assumption that the replacement seawall is going ahead, as per LTP decision.
	• Derek added that the risk assessment will not be affected for 2050 whether the replacement seawall is in place or not. This is because design life for both replacement Paekākāriki and Raumati seawalls is less than 2050. Derek added that once the design life is over for the replacement seawall, then under status quo, we can assume there is no protection after 2050.
	• Derek noted that all risk ratings for all elements except for properties, show that most risks are predominantly low for the present day and in 2050 (slide 21). He added that this is how the TK process can inform the longer-term direction for adaptation options.
	• Stephen summarised saying that when it comes to the pathways planning, TAG and CAP are assuming the seawall survives the proposed LTP and remains as a status quo protection structure until 2050.
	• Kelvin asked why a seawall with a 50yr design life is not being planned to be built now. This generated the following discussion:
	<ul> <li>Sophie provided background to the planning, saying that a new seawall design and materials becomes a cost / benefit exercise.</li> </ul>
	<ul> <li>Iain added that the last estimate for a 50-year design life blew out to \$27M from an initial costing of \$13M - but that was 10 years ago.</li> </ul>
	<ul> <li>Abbey asked Sophie to share as a Councillor, the point of view regarding Elected Members' support for the seawall. Sophie expressed the Paekākāriki community has been requesting a seawall upgrade since 2010. There have been many workshops, and there is general support from Elected Members to deliver on the seawall for the community and to protect council assets.</li> </ul>
	<ul> <li>Derek noted the like for like timber replacement is a cheaper option. Iain added that the cost for a longer design life blew out for a number of reasons, for example, the ground conditions were more difficult to get foundations in.</li> </ul>
	<ul> <li>Iain noted that the cost of seawall is a lot for a small community of 50,000 people to shoulder. He added that timber bulkhead seawalls have proven themselves and was a pragmatic decision at the time.</li> </ul>
	• Derek summarised the 3 domains that were assessed, saying that by 2070, the higher levels of risk across the domains related to erosion. By 2130, under both scenarios, the risk profile goes up under a do-nothing scenario, with some extreme, high and moderate risks evident.
	• Jim thanked Derek for the presentation and moved to Agenda item 6.
Define	Stephen Daysh, Mitchell Daysh (Facilitated discussion with CAP decision required)
Objective for Paekākāriki Adaptation Area	<ul> <li>Stephen spoke to the PAA Capturing Values to Inform Objective Presentation (PowerPoint) and discussed that setting a clear objective unique for each adaptation area reflective of each distinct community and their context.</li> </ul>
	• Stephen spoke to the engagement undertaken noting that 448 comments were received for the four value questions. He covered five key themes and related values as informed



	by the views expressed from respondents. He then covered the predominant views identified under each theme.
	• Based on the responses received, Abbey noted that aspirations to stay in place for "as long as possible" came through very strongly in the RAA, but this phrase did not feature so often in Paekākāriki.
	• Stephen noted that the concern expressed over loss of value to assets are being felt by coastal communities worldwide.
	• Stephen presented the draft PAA objective for CAP to discuss, debate and finalise.
	• Don proposed the removal of "as long as possible" from the Objective. This was debated by CAP, and Stephen suggested "as long as feasible" instead. This is because there may be a time it becomes unpractical to stay in place.
	• Don proposed that the natural environment be maintained rather than enhanced as the costs to enhance may be unaffordable.
	• Susie noted a sense of equity and fairness, and awareness amongst Paekākāriki community on their limited ability to stay in place. This observation was supported by Jerry.
	CAP discussed wording and agreed to the discussed amendments.
	The CAP's final wording of the PAA Objective can be found in Appendix 1 to these minutes.
	Tea Break
Developing Pathways for Paekākāriki Adaptation Area	<ul> <li>Stephen Daysh, Mitchell Daysh &amp; Derek Todd, Jacobs (Facilitated discussion session resulting in CAP decision required)</li> <li>Stephen reminded CAP that the aim is to develop a short-list of pathways for each management unit, to be considered for the MCDA scoring.</li> <li>Derek spoke to the PAA Draft Adaptation Pathways Presentation and outlined the rationale behind the three management units identified for PAA as outlined within the presentation. The include Erosion units 11A (northern and contains the Paekākāriki seawall) and 12A (southern), and Inundation unit 11B. Derek noted that while PAA includes a small portion of QE Park, the management units identified for erosion and inundation, exclude QE Park, as Council has no jurisdiction over this area, and management decisions are made by GWRC and DOC for the Park.</li> <li>Abbey added that the line was brought lower to indicate that the pathway decisions relate to the area in KCDC's jurisdiction.</li> <li>Derek added that erosion sub-unit 12A, has a mix of council walls, private walls, NZTA walls, and no seawalls.</li> <li>Don noted that the inundation unit does not include the motor camp, and asked if it was part of QE Park. Abbey confirmed that the understanding is that the campground is part of QE Park – hence not included within the inundation unit.</li> <li>John asked if the line north of QE Park includes the Wainui Stream mouth. Derek confirmed that Wainui Stream mouth is in QE park. John acknowledged that Council has no influence over this area but asked about the impact of CAP's influence to the discussion on management of these areas.</li> </ul>



looking beyond these artificial boundaries, recommendations could contribute to GWRC awareness of impacts and future management.

- Derek explained the existing coastal protection structures in Paekākāriki. On slide #4, it shows between the 2 black arrows the approx. 900 metres of existing seawall which is proposed to be replaced (dependent on confirmed LTP agreed funding). The pink brackets show existing rock revetments that are not currently on the programme for replacement, due to these having a similar design life of 20-30 years (i.e. there is not a current need). These are all part of one management unit.
- Further south, in unit 12A, he noted the range of walls, adding that the Ames Street reserve has no protection, however there are metal remnants from a previous structure. Iain added that there is a mix of mostly private seawalls in front of much of the Ames Street properties that have been variously maintained. There are remnants of old seawall structures (tyres, etc).
- Derek then showed the number of PAA properties exposed for both erosion and inundation, under both scenarios and over all timeframes. He noted that the property risk from erosion rose to high, at 2130 under SSP5-8.5 scenario. For coastal flooding, there is a low number of properties exposed in all timeframes, under both scenarios.
- Derek presented discussion on the draft adaptation pathways for each of the management units.

Management Unit 11A – Paekākāriki Seawall (Erosion Unit)

- Derek noted that the current timeframe zero properties are expected to be at risk of erosion due to the current Paekākāriki seawall and existing rock revetments being in place providing protection. This would continue to be situation with the proposed replacement seawall until the end of its design life (approx. 2044). Then for 2050 there is also zero properties at risk due to Council maintained road directly along the beachfront and this also creates a setback between the sea and properties. By 2070 exposure to beachfront property increases, and access to beachfront homes could be compromised (beachfront road reduced to 1 way) or totally removed (means that there likely would be no access to the properties).
- Derek presented the draft Pathways for 11A explaining that PW 1, 2 and 6 are not considered viable pathway options for PAA from a technical point of view. This is due to the proposed seawall replacement not having a design that could be enhanced in the medium term for PW 1 and 2, and for PW6 Beach Renourishment would not work in this area of the coast due to there not being any dunes.
- Stephen asked CAP if they have any suggestions.
- Jerry asked would it be possible to hold the line in current place for longer if another seawall was built after the new proposed replacement seawall. Derek said this could be a legitimate option and could be another pathway to add for discussion. CAP changed the adaptation options for PW 1 and removed starter for discussion PW2. The pathways were renumbered to become PWs 1-4.

Management Unit 12A – South of Paekākāriki Seawall (Erosion Unit)

- Derek reminded CAP that unit 12A contains a variety of seawalls. He provided overview of number of properties at risk if nothing is done and current structures fail or are not repaired.
- Stephen asked Derek if there were any pathways that were not viable. Derek noted that the bottom 3 pathways (PW 7-9) in italics, were pathways that the CAP had rejected for



northern Raumati. PW 1-6 are the same as those drafted for RAA unit 9A, noting these
coastlines have a similar mix of seawall ownership. Derek added from a technical point of
view these pathways are applicable to this unit.

- Susie asked about the short term "Enhance" option, what it would mean for private seawalls or where there are no seawalls? Derek responded saying that planning would allow a piecemeal approach for enhancements to take place. This aligns with the description for menu option 2.
- Jason added that there are different ways that the Council could support people, including but not restricted to through planning framework. For example, if people came as a collective to Council with an integrated private seawall proposal, it would allow for a better outcome, and potentially planning rules could be developed to incentivise this (eg by creating a more enabling consenting pathway than individual ad hoc private wall proposals). Another approach could be for Council to facilitate discussions amongst the property owners to develop a cohesive approach.
- Iain added that if the seawall in question is built into the Coastal Marine Area (CMA), (ie. below mean high water springs), the regional plan has a consenting pathway regarding requests for upgrades, etc. Generally, it is easier if there is a collective of people with a similar upgrade approach. However, it is unlikely that it will ever become a permitted activity if it occurs in the CMA.
- Stephen suggested that PW 1-6 are kept for unit 12A, as CAP had previously discounted PW 7-9 (for RAA Unit 9a).
- Jerry noted that it seems the only short-term option is either Status Quo, or Enhance Existing Protection Structure, rather than the short-term seawall option, as suggested in PWs 5 & 6.
- Susie suggested that keeping PW 5 and/or 6 would offer a fair approach for those in this unit, where a short-term seawall option is retained for consideration.
- Sophie responded, noting that most of those living in unit 12A Paekākāriki have a general
  acceptance that this area is at risk. Sophie added that many residents would want
  Council to help enable a private seawall.
- John and Jerry shared that PW 5 and 6 do not make sense and these could be dropped. The CAP suggested that at least one of these pathways should be kept ensuring a range of options have been considered. Derek added that PW 5 makes more sense to keep, and PW 6 could be removed.
- CAP wished to keep a range of short-term Status Quo options on the table. The CAP determined to keep PW 1-5, PW 7 and 8 for consideration under the MCDA scoring and removed PW 6 and 9.
- Once agreed, these pathways were renumbered to become the new pathways PW 1-7. Management Unit 11B Paekākāriki (Inundation Unit)
- Damian explained that there is a low risk of inundation within this adaptation area, and the properties numbers do include properties where inundation is predicted to occur on property boundaries this does not reflect the amount of actual dwelling projected to be at risk.
- He noted that the Wainui Stream area is included in the PAA risk assessment, but it is not included in the Unit 11B Inundation area (yellow outline), as it is included in the boundary of QE Park.



	<ul> <li>He noted there are some stormwater drains and streams that are pathways for storm surge, but generally the risk related to these increases in the higher sea level rise scenario.</li> <li>Damian presented seven draft pathways for consideration, noting that the first four pathways are about maintaining current status quo.</li> <li>Damian noted that the three pathways in italics (PW 5-7) are included but had been previously discounted when CAP considered the Raumati inundation unit (Unit 9B). He advised that given the low level of risk exposure in PAA for inundation, these pathways could be removed, as these levels of protection are unnecessary in the medium and longer term.</li> <li>Damian suggested CAP could consider additional pathways where accommodation and small-scale hard protection could be considered.</li> <li>Stephen responded noting to the CAP, that given the small number of properties at risk, would PWs 1-4 be sufficient.</li> <li>Don brought CAPs attention to PW 2 and 3, suggesting that one be removed by combining menu options 5 and 7 (Elevate Floor Levels and Flood-proofing). CAP agreed to this suggested change to PW2 and resulted in PW 3 being removed. It was desired that the use of 'Flood proofing' to also show clearly that is included both buildings and infrastructure, so the wording 'infrastructure' was added when Flood-proofing was chosen.</li> <li>Abbey noted that PW 4 included Additional Hard Protection in the medium term, and asked what CAP's thoughts on pathways with Additional Hard Protection for PAA are. The CAP was supportive of this adaptation option and determined to keep PWs 4 and 5 with this option in it, with the amendment to PW 4 to start with Status Quo and Community Education &amp; Emergency Management as the short-term option.</li> <li>CAP discussed retaining at least one pathway (from PW 5-7) that had a short-term "Enhance Existing Inundation Protection" option. PW 5 was kept, and CAP determined a new pathway as well.</li> <li>Once agreed, these pathways were renumbered to</li></ul>
Defining Multiple	Stephen Daysh, Mitchell Daysh & Derek Todd, Jacobs (Facilitated discussion session resulting in CAP decision required)
Criteria Decision Analysis (MCDA) Weightings for Paekākāriki Adaptation Area	<ul> <li>Stephen presented the Takutai Kāpiti MCDA Weighting Chart, for CAP to discuss in relation to Paekākāriki.</li> <li>Stephen reminded CAP that the weighting assigned to each of the eight criteria ascribe a relative importance from 1 – 3, for each criterion for PAA. He noted that while all criteria are important, they may not all be equally important for this area. He added that the CAP discussion will result in assigning a weighting to each criterion with supporting rational. He then stepped through each criterion beginning with:</li> <li>In reference to Ecology, a starting weight of 3 was proposed. Martin suggested a lower score noting that community and their welfare rated more highly than natural environment and thinking forward to the relativity between other criteria. Olivia shared the based on the PAA community values, the community value the natural environment and wildlife. The CAP landed with a weighting of 3.</li> </ul>



•	In reference to Landscape, a starting weight of 1 was proposed. Agreed by CAP due to the low natural character in the area – as in alignment with the Natural Character risk assessment.
•	In reference to Te Ao Māori values, John recommended a 3 noting that while there was reasonably limited mahinga kai in the PAA, the score should be 3 due to known extent of cultural sites (e.g., waahi tapu around the area, pa site, etc). The CAP all agreed.
•	In reference to Community Social and Economic wellbeing, a weight of 3 was proposed, noting the community values this based on the provided values from this community.
•	In reference to Public Access and Recreation, a weight of 3 was proposed. CAP agreed, noting that responses from the gather community values, it shows that community makes use of the whole environment, rather specifically the beach. There is not much beach at high tide to walk along, but people are able to enjoy beach view from Ames St reserve. John asked if the surf club plays a role in recreation for the community.
•	In reference to Regulatory Consenting and Policy Risk, Jason explained previously for other areas this criterion has been scored at 1. CAP discussion included:
	<ul> <li>Jerry noted that people are concerned about consultation and information specific from Council on regulatory framework, and how Council could assist the community on planning issues, and how to best protect themselves, e.g changes to allow their community to build seawalls.</li> </ul>
	<ul> <li>lain said that many of these projects would be in the CMA, and GWRC regulatory involvement in the consenting process. Depending on the options proposed, there will be various degrees of difficulty from permitted to non-regulatory status. He reminded CAP that over the 100-year adaptation planning horizon there is uncertainty on how the regulatory environment will change.</li> </ul>
	<ul> <li>Jason said this has previously been weighted as 1, and asked how much impact over the overall score will the degree ease or difficulty over consenting be? Previously CAP has said, for example, a good adaptation option should not be dragged down by the degree of complexity to get consent. Jason asked CAP to consider, that if adaptation options are being considered, how much does CAP care about how hard or easy it is to get through the consenting process.</li> </ul>
	<ul> <li>Stephen explained the relationship between MCDA scoring and weighting and noted that the weighting reflects the relativity between all of the eight criteria. For example, if a pathway will be difficult to consent, it will usually be given a low MCDA score. This score would then be multiplied by the weighting. So, a low MCDA scored pathway multiplied by 1, results in a lower overall score. However, if the pathway is easy to do from a consenting point of view, it will usually score higher, e.g. 4 or 5. If this MCDA score is then multiplied by the weighting (e.g. 1), it will result in a higher MCDA score.</li> </ul>
	<ul> <li>Stephen suggested that a weighting of 1 is reasonable, using the same rationale as used in previous MCDA weightings. CAP agreed on weighting of 1.</li> </ul>
•	In reference to Effectively manages risks of coastal erosion, a weighting of 3 was proposed. Derek explained the weighting for Raumati was 3, because coastal erosion is the major hazard, and the pathway needs to effectively manage that. He proposed that this weighting would be appropriate for the PAA due to the erosion risk. CAP agreed.
•	Effectively manages risks of coastal inundation, a weighting of 2 was proposed. For background, Derek explained the weighting for inundation for Raumati was 2. He





	<ul> <li>suggested that a 2 or a 1 would be appropriate in PAA, based on the lower inundation risks. CAP agreed that it should be weighted as 2 as this is still important but is not the main coastal hazard issue of the area.</li> <li>The CAP's PAA MCDA Weightings can be found in Appendix 3 to these minutes.</li> </ul>					
Next Steps	Abbey Morris (KCDC)					
	• Abbey confirmed that MCDA scoring of the PAA shortlisted pathways as determined today, will be scored at the next CAP meeting on 6 March 2024.					
	• She confirmed that there are two more CAP meetings before CAP begin the scheduled writing period.					
Closing Karakia	By John Barrett					

#### ATTACHMENTS

- PAA Risk Assessment presentation
- PAA Capturing Values to inform Objectives presentation
- PAA Adaptation Pathway presentation
- PAA High-level menu of options
- PAA Takutai Kapiti MCDA Weightings
- MCDA Scoring Criteria document





#### Appendix 1: CAP's Objective for the Paekākāriki Adaptation Area

Protecting our unique community for as long as feasible from coastal hazards by maintaining essential infrastructure and ensuring that:

- we continue to enjoy beach access for recreation and public use;
- our natural coastal environment is maintained;
- we are kept informed about coastal hazards, consulted on adaptation options; and
- we can increase our resilience to protect our properties, maintain our unique lifestyle, and keep our community safe.





Appendix 2: CAP's Draft Pathways for the Paekākāriki Adaptation Area

#### **Pathways Template**

#### Sub-area: 11A Paekākāriki Seawall (Erosion Unit)



Management Unit	ement hit Pathway Short term →		Medium term	$\rightarrow$	Long term	
Management Unit: 11A Paekākāriki (Erosion Unit)	Pathway 1	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Sea wall <sup>13</sup> (Protect – Hard Engineering)	$\rightarrow$	Re-establish the line with a setback protection structure <sup>10</sup> (Retreat & Protect)
	Pathway 2	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Sea wall <sup>13</sup> (Protect – Hard Engineering)	$\rightarrow$	Enhance Sea wall <sup>2</sup> (Protect – Hard Engineering)
	Pathway 3	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Re-establish the line with a setback protection structure <sup>10</sup> (Retreat & Protect)	$\rightarrow$	Enhance protection structure <sup>2</sup> (Protect – Hard Engineering)
	Pathway 4	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Re-establish the line with a setback protection structure <sup>10</sup> & Dune reconstruction <sup>12</sup> (Retreat & Protect)	$\rightarrow$	Beach renourishment <sup>11</sup> (Protect – Soft Engineering)

• The proposed works for the Paekākāriki seawall replacement will have a design life of 20 years. Under 'status quo' it is assumed that these works will go ahead, and therefore will provide protection along this section of coastline for the short-term period. This is the same design life as the existing rock revetment which are on either of the proposed new seawall upgrade. Therefore, "status quo" for these walls will also provide protection for the short-term period.

All pathways at all timeframes to include "Avoid" option through land-use planning (e.g short term is new coastal hazard provisions in Coastal Environment District Plan Change).

• Under existing RMA legislation, the success of planning actions is limited to re-developments and new developments. For re-development, this is dependent on the "turn-over" of building stock.



### **Pathways Template**

#### Sub-area: 12A South of Paekākāriki Seawall (Erosion Unit)

/lanagement Unit	Pathway	Short term		Medium term	$\rightarrow$	Long term
Management Unit:11B (South of Paekākāriki Seawall Erosion Unit)	Pathway 1	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Enhance existing protection structure <sup>2</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Re-establish the line with a setback protection structure <sup>10</sup> (Retreat & Protect)
	Pathway 2	Enhance existing protection structure <sup>2</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Sea wall <sup>13</sup> (Protect – Hard Engineering)	$\rightarrow$	Re-establish the line with a setback protection structure <sup>10</sup> (Retreat & Protect)
	Pathway 3	Enhance existing protection structure <sup>2</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Re-establish the line with a setback protection structure <sup>10</sup> (Retreat & Protect)	$\rightarrow$	Enhance Sea wall <sup>2</sup> (Protect – Hard Engineering)
	Pathway 4	Enhance existing protection structure <sup>2</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Re-establish the line with a setback protection structure <sup>10</sup> & Dune reconstruction <sup>12</sup> (Retreat & Protect)	$\rightarrow$	Beach renourishment <sup>10</sup> (Protect – Soft Engineering)
	Pathway 5	Sea wall <sup>13</sup> (Protect – Hard Engineering)	$\rightarrow$	Enhance Sea wall <sup>2</sup> (Protect – Hard Engineering)	$\rightarrow$	Enhance Sea wall <sup>2</sup> (Protect – Hard Engineering)
	Pathway 6	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Enhance existing protection structure <sup>2</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Sea wall <sup>13</sup> (Protect – Hard Engineering)
	Pathway 7	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Sea wall <sup>13</sup> (Protect – Hard Engineering)	$\rightarrow$	Enhance Sea wall <sup>2</sup> (Protect – Hard Engineering)

Retreat

Protect

Accommodate

Avoid

Enhance

• All pathways at all timeframes to include "Avoid" option through land-use planning (e.g short term is new coastal hazard provisions in Coastal Environment District Plan Change).

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• Under existing RMA legislation, the success of planning actions is limited to re-developments and new developments. For re-development, this is dependent on the "turn-over" of building stock.

Seawall is a coordinated approach, yet to be determined if it is publicly or privately funded.

### **Pathways Template**

Pathway

Pathway 1

Pathway 2

Management

Unit

ekākāriki (Inundation Unit)

Sub-area: 11B Paekākāriki (Inundation unit)

Short term

Status Quo1 and Community Education and

Emergency Management<sup>4</sup>

Status Quo<sup>1</sup> and Community Education and

Emergency Management<sup>4</sup>

Status Quo<sup>1</sup> and Community Education and



Management Unit 11B: Pa	Pathway 3	Emergency Management <sup>4</sup>	$\rightarrow$	(e.g. Stopbanks <sup>14</sup> , Pumpstations <sup>15</sup> ) (Protect)	$\rightarrow$	(Enhance)
	Pathway 4	Enhance Existing Inundation Protection <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>14</sup> , Pumpstations <sup>15</sup> ) (Protect)	$\rightarrow$	Enhance New Inundation Protection <sup>3</sup> (Enhance)
	Pathway 5	Enhance Existing Inundation Protection <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Elevate floor levels of buildings <sup>8</sup> or Flood proofing buildings and infrastructure <sup>6</sup> (Accommodate)	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>14</sup> , Pumpstations <sup>15</sup> ) (Protect)

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**Medium term** 

Management<sup>4</sup>

(Enhance)

Management<sup>4</sup>

(Enhance)

All pathways at all timeframes to include "Avoid" option through land-use planning (e.g short term is new coastal hazard provisions in Coastal Environment District Plan Change). Under existing RMA legislation, the success of planning actions is limited to re-developments and new developments. For re-development, this is dependent on the "turn-over" of building stock.







#### Appendix 3: Paekākāriki Adaptation Area MCDA Weighting Chart

	#	Criteria	Description	Weighting	Key Reasons
	1.	Ecology	<ul> <li>Impact or enhancement on indigenous biodiversity values and habitat; and ecosystem functioning within the coastal environment and surroundings.</li> <li>Ability to protect the natural adaptive capacity of the ecosystem.</li> </ul>	3	• Community expressed high values in the wildlife (eg little penguins), connection to nature and a desire for a natural approach to adaptation.
đ	2.	Landscape	<ul> <li>Impact on the natural character of coastal environment and surroundings.</li> <li>Aesthetic outcomes of implementing the option and the meaning of this to the community.</li> <li>Ability to protect the natural adaptive capacity of natural character.</li> </ul>	1	<ul> <li>Community values functionality of the coastline more than the aesthetics.</li> </ul>
	3.	Te ao Māori values	<ul> <li>Impacts on or enhancement of the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga.</li> <li>Maintains access to, and enables the carrying out of customary activities, such as mahinga kai.</li> </ul>	3	<ul> <li>There are cultural sites including waahi tapu and significant sites to Māori.</li> </ul>
	4.	Community Social and Economic Wellbeing	<ul> <li>The community has choice around:</li> <li>Health and safety of the community</li> <li>Certainty around future of community</li> <li>Social cohesion within the community</li> <li>Maintain the insurability of personal assets.</li> </ul>	3	<ul> <li>Rated highly given the strong community values submitted including the whole community feel (connectedness, progressiveness and inclusion) and the coastal area is a good place for exercise and mental health respite.</li> <li>CAP has observed that there are a large amount of community groups and time invested into community projects in this area.</li> </ul>



	5.	Public Access and Recreatio n	<ul> <li>Wider community/district use of the coastal environment</li> <li>Opportunities for recreation</li> <li>Public access to the coastal environment</li> </ul>	3	<ul> <li>The community values this criterion as defined.</li> </ul>
Technical Criteria	6.	Regulatory consenting and policy risk	<ul> <li>Regulatory consenting and policy risks of implementing an option including:         <ul> <li>Consenting requirements;</li> <li>District plan changes; and</li> <li>Consistency with statutory framework.</li> <li>Carbon footprint associated with the pathway.</li> </ul> </li> </ul>	1	<ul> <li>Consenting should not limit beneficial adaptation options</li> </ul>
	7.	Effectively manages the risks of coastal erosion	<ul> <li>Effectively manages the risks of Coastal Erosion.</li> <li>Proportionate to the nature and scale of the risk over time.</li> <li>Avoids the exacerbation of risk in other areas.</li> <li>Approaches are supported by best practice and a robust consideration of the science/Mātauranga</li> </ul>	3	<ul> <li>Erosion is the major hazard for this adaptation area.</li> </ul>
	8.	Effectively manages the risks of coastal inundation	<ul> <li>Effectively manages the risks of Coastal Flooding.</li> <li>Proportionate to the nature and scale of the risk over time.</li> <li>Avoids the exacerbation of risk in other areas.</li> <li>Approaches are supported by best practice and a robust consideration of the science/Mātauranga</li> </ul>	2	<ul> <li>As inundation is considered to be a low risk for this adaptation area, however the option still need to be effective.</li> </ul>
	Guida	<ul> <li>All criteri</li> <li>All criteri</li> <li>Weightin</li> <li>All criteri</li> <li>All criteri</li> <li>Weightin</li> <li>task at ha</li> </ul>	a must be 'weighted' on a scale of 1 to gs are assigned to reflect relative impo a are important – wouldn't be included gs reflect that while all criteria are imp and	93 (no half numb ortance between d if they weren't oortant, they are	pers) n criteria not all equally important to the

• The Panel must debate and ultimately agree which weighting to apply to each criteria