

Minutes:
CAP Meeting– Signals, Triggers and Thresholds
for Northern and Central Adaptation Areas – Online Mini-CAP Meeting

Date: Wednesday, 30 November 2023

Location: Online (MS teams–link in invite)

Time: 2.00 pm – 4.00 pm

Attendees: Jim Bolger (Chair), Donald Day, Martin Manning, Susie Mills, Kelvin Nixon, Moira Poutama, Stephen Daysh, Derek Todd, Monique Eade, Iain Dawe, Jason Holland, Yvonna Chrzanowska, Alfred Lison, Oskar Temel, and Abbey Morris

Observers: Cam Butler

Apologies: Jerry Mateparae, Kris Pervan, Sandhira Naidoo, Aastha Shrestha, Olivia Bird, John Barrett, Mark Taratoa, Kate MacDonald, Damian Debski, Tim Sutton, Michael Moore, Glen Olsen, Sophie Handford, Deanna Rudd, Rhys Girven

Agenda Item	Comments
Opening & Introductions	<p>Opening Karakia by Moira</p> <p>Welcome by Jim Bolger, Chair</p> <p>Jim extended welcomed back Cam Butler as a CAP Observer.</p>
Signals, Triggers and Thresholds for the NAA and CAA	<p>Stephen Daysh, Mitchell Daysh & Monique Eade, Jacobs (<i>Facilitated discussion session resulting in CAP decision required</i>)</p> <ul style="list-style-type: none"> Stephen introduced the focus of the meeting, explaining that Signals, Triggers and Thresholds are an important part of the DAPP approach, and too often seen as an afterthought, during the implementation phase. He explained their role in working out when to move between different pathways based on thresholds. Stephen explained that the discussion today focusses on NAA and CAA. He asked CAP to consider throughout this meeting on what they think could be community thresholds for change in the short, medium, and long term. Abbey explained the signal, triggers and thresholds focused CAP meeting has been split into two, with the first being brought ahead into this year in order to provide more thinking time for the CAP ahead of the CAP recommendation report deadline. Monique explained CAP will recommend strawman thresholds. Detailed thresholds, along with signals and triggers will be identified at a later stage post the TK and CAP process. This is due to the significant time and level of engagement needed in each community to achieve community agreed signals, triggers and thresholds. Monique spoke to the presentation and provided an overview of signals, triggers and thresholds. She explained a threshold is independent to the pathway itself. Once a threshold is identified, you work backwards to identify early warning signs (signals) and when a change in management approach (triggers) needs to begin, ie. lead-in time. She explained that amount of lead in time may vary depending on the next agreed pathway, eg. hard protection measures may require more time for consenting. Monique shared that thresholds identified will be unique to each community and only for coastal hazards. They may reflect the objective for the community, but not always. She noted that individuals in a community may have their own thresholds, as they may make their own decision to leave. However, the threshold relates to community thresholds (not individual). Abbey stressed that a lot of time is required to reach community agreement on thresholds, and this is not achievable within CAP's timeframe. Council is anticipating this

will happen post TK, subject to a successful LTP bid to allow for further community engagement.

- Jim noted that every community is seeking the best possible practical option that considers affordability and timelines.

Amberley Beach Case Study

- Monique shared about her experience in leading the community decision conversations for signals, triggers and threshold that occurred for Amberley Beach in the Hurunui District – a small community with 109 private properties. A total of 40 hours of community engagement was undertaken directly by Hurunui District Council, largely in 2 hours blocks. Of this, 2 hours were spend covering science, and 8 sessions (16 hours) on developing signals, triggers and thresholds. The Amberley Beach residents and Hurunui District Council have finalised their decisions, including their signals, triggers and thresholds and pathways for adapting to coastal hazards in their area.
- Amberley Beach has both coastal erosion and inundation issues. A bund slows down erosion but does not stop it. Residents have been paying to maintain the bund since 1992, and reconsenting of the bund occurred in 2023. While the relocation of the bund was agreed, it only provided a 20-30 year solution, so the community agreed to managed retreat as an endpoint.
- Hurunui District Council (HDC) had initial conversations with the community which covered: informing community that they would need to fund the solutions, and to form specific community objectives for adaptation. The community identified three agreed objectives, then identified thresholds, working back to identify the triggers and signals. Monique provided examples of 2 of the 7 measurable triggers that were identified for Amberley Beach using local indicators: for erosion, e.g. encroachment of the bund within 5 metres of properties; or for inundation: e.g. 2 flood events in any 12 month period.
- With Amberley Beach, due to the rates of coastal hazards, the community knows they need to look towards retreat. As hard protection is unaffordable, HDC is developing a managed retreat plan.

Discussion

- Jim queried how the community responded to the option for managed retreat as the best solution. Monique explained the Hurunui District Council (HDC) started talking to the community in 2020, and due to the small rate payer base, hard protection options would have needed a guarantee of central government funding. The community itself raised retreat as the best possible option. The community asked HDC to come up with options so they could understand what retreat could look like. HDC looked at a land-banking proposal, where HDC would buy land to undertake to create a new subdivision that can be ready to move into over the next 20 years, and current property owners would contribute. Due to the timeframes, the retreat option does not preclude putting in hard protection in the interim.
- Jim asked about reaction of community to plan for retreat. Monique explained the community has seen the erosion and experienced coastal flooding, and slow council responses to the disruptions to infrastructure, etc. Of the 30 responses received, only two opposed retreat as an adaptation option. Monique explained that during the discussions, the community came along on the journey, and understood that the risk would likely not get better over time.
- Stephen noted the key point was that the community asked HDC for a managed retreat option. This was also the case with the Haumoana (Hawke's Bay) community, who based on understanding the ongoing annual costs to property owners of hard protection to keep them safe, recognised in the longer term that retreat was going to need to be an option.

- Jim noted the retreat timeline for Amberley Beach, and asked how far away retreat would affect Kapiti Coast communities. Derek said that in Kapiti, the Council seawall replacement in Kapiti has bought parts of Raumati a further 20- 30 years, but this is not the situation for north of the Wharemauku Stream, where many of the private structures need replacement so the risk is earlier.
- Derek responded that Amberley Beach is facing retreat in next 20 – 30 years. Initially hard engineering solutions were explored, but because the community was informed that some of the costs would fall on them, they focussed on exploring the retreat solution. The community did not want to lose equity in their properties and requested HDC assistance for retreat options, rather than doing nothing.
- Martin asked Monique about the variation of the floor heights between properties. Monique said most properties were low, but a few of the newer houses were higher. Derek added that this is where the community discussions and consensus decisions around thresholds become important. For example, what is acceptable for the community may depend on building stock, eg. age of house, floor levels, etc, and this may vary between communities along the Kapiti Coast.
- Kelvin asked about raising the floor levels of existing properties in Amberley. Monique responded that most of the buildings were very old, and the high current erosion rate precluded upgrading of buildings. Currently in a coastal flood the residents lose road access, and community did not want to be trapped. HDC could have invested in raising roads or putting in a bigger culvert. Some residents wanted guaranteed 24/7 road access though.
- Jim asked how much debate occurred when managed retreat was proposed. Monique said that HDC were able to discuss the issue in small groups and over a period of time. They did also investigate buyouts, and land swaps. The community recognised the benefit of a land swap, as they were able to keep some equity in their homes.
- Derek asked Monique about the negative stigma regarding “managed retreat”. Monique explained that in January 2023, after 2.5 years of engagement, HDC had a Coastal Adaptation Plan ready for sign off. However, when Cyclone Gabrielle hit (Feb 2023), wider central government discussion around managed retreat saw the Amberley community question their approach. They were weighing up the potential that if they wait for a disaster to occur, they could wait to get a payout. Typically, managed retreat has been done reactively in New Zealand, where local/central government has managed the retreat. HDC discussed the benefits of a proactive approach with the Amberley community. The community then decided that they wanted to be proactive and move away from the hazard, rather than have retreat happen to them. So HDC and the community began to use the term “*proactive relocation*” instead.
- Don observed that levels of engagement at Amberley are significantly higher than what has happened in TK. He noted that in the RAA, managed retreat is a dirty word. However, given that that if retreat is a pathway option in the 30–50-year timeframe, then conversations about managed retreat will need to come up in community decades earlier to allow for lead in times.
- Jim agreed that when properties come up for sale discussion, managed retreat conversations will be difficult, and there will be more pressure on Council.
- Kelvin said limitations exist where pathways may not be appropriate to address the wider flood risk.
- Abbey said Council likely will consider the CAP’s recommended pathways along with combining the additional fluvial/pluvial modelling by AWA.
- Kelvin believed that the AWA modelling should be part of CAP’s considerations. Abbey reminded that the scope of CAP is coastal hazards. The AWA report covers inland flooding from fluvial and pluvial sources – inland groundwater is not within the scope for Takutai Kapiti.

- Kelvin expressed annoyance that the AWA report on groundwater was not available for CAP to consider. He was concerned that the TK recommendations could be a waste of time. *NB: the AWA report has not yet been finalised.*
- Monique added that the process of identifying thresholds will not be affected by additional information that may be included in the AWA report. She reiterated that thresholds are important for all adaptation areas. Triggers may benefit from information from the AWA report, but reminded CAP that the signals, triggers for each community will be different.
- Jim noted that during TK a lot of information has been considered by the CAP and will feed into decisions that are closer to real action and can be implemented.
- Abbey said TK is the first of many steps for the district to respond to coastal hazards and implement solutions.
- Kelvin noted that originally TK was to be a 1-year project. He asked if TK could be extended to include AWA work.
- Abbey noted that scope of TK was determined by the Co-Design Working Group, as an outcome of an Environment Court settlement during the Proposed District Plan process. Inland flooding/groundwater is not part of the settlement scope nor the Co-Design Working Group's scope, so is not part of the CAP's scope.
- Jim added that TK is not a waste of time, as the process has allowed the community further awareness of the issues and risks that the district is likely to face, and recommendations for ways forward.
- Martin expressed concern that rain and constant river/stream flooding is likely to affect the habitability and insurability of houses, in less than 20 years. This risk was likely in low lying areas, particularly south of Otaki, inland of Waikanae, and in northern Paraparaumu Beach.
- Stephen reminded CAP that he and Iain Dawe were involved in the Co-Design Working Group about 3 years ago which developed the TK scope and CAP representation. It took a year to come to an agreement on the scope for TK. From a technical perspective looking at coastal and river interactions together (by including the GWRC Whaitua project) made sense. But there were different council priorities and timings between GWRC and KCDC, and the broadened scope could not get off the ground. KCDC also had environmental court obligations to update coastal hazard-related District Planning requirements. TK is the starting point on how to adapt to sea level rise (SLR) and the impacts of coastal hazards along the Kapiti coastline. Decision was made by Council to back TK to focus on sea level rise and make progress and wait for Whaitua to catch up. GWRC decided not to partner with KCDC for TK too.
- Kelvin said a key thing raised in community meetings is the groundwater issue, and that groundwater not being included in the CAP brief is unsatisfactory.
- Jim referred to the Developing Signals, Triggers and Adaptation Thresholds for the Northern and Central Adaptation Areas Memorandum (point 3, page 7 – *Setting of adaptation thresholds*) and queried what is meant by current management approach in relation to adaptation thresholds. Abbey explained that an example of a current management approach, in the case of Raumati, is the seawall. And once that seawall is no longer serviceable or too expensive to maintain, then the pathway could move from one adaption pathway to the next pathway, based on thresholds.
- Jim sought clarification on a situation being “no longer tolerable” for individuals vs communities. Monique explained that for each community, there will be an unacceptable outcome from the impacts of coastal hazards, for those that live there. This would be the threshold. However, well before the threshold is reached, signals and triggers that can be measured at a community level should be in place.
- Jim stressed that unacceptable outcomes of groundwater for communities will be important for CAP to include in the report.

- Stephen acknowledged CAP's concerns, and noted this discussion will be beneficial for their recommendation report. He focussed CAP onto the discussion on thresholds for the Kāpiti communities and noted that with flooding irrespective of the source (coastal or pluvial/fluviat) it is likely that community thresholds will be the same for people in those communities. Monique added that thresholds are a more manageable concept for a community to consider and plays a part of their understanding of the adaptation planning journey.
- Derek said when CAP is thinking about thresholds for flooding, regardless of its source, types, duration, depth of flooding, etc, that CAP should think about what is tolerable for that community.
- Jim noted that with work done to date, CAP and Council have a wider appreciation of the scale of the issues the community will be dealing with.
- Stephen suggested this be addressed separately, and progress with the agenda topic to respect the work programme.
- Jason reiterated that there is a process for relitigating the scope of the ToR. He noted that the existing scope is already large and with the delivery deadline of the recommendation report due in late May 2024, cautioned about increasing the scope. He is conscious that CAP community feedback engagements for CAA, RAA and PAA still need to occur, and these will be valuable and challenging conversations. He noted the unenviable task that CAP has undertaken to date and reminded them that at this stage there is no budget for CAP to continue beyond 1 July 2024.
- Kelvin expressed that CAP does not want to submit a report to meet an arbitrary deadline and not sufficient cause to cut corners.
- Jim aware that community will not be happy to have a process that does not address community concerns.
- Stephen progressed to the Strawman threshold exercise. He said that flooding issues in low lying areas are relevant for a broader conversation. He added it was important for CAP to have thresholds for affected communities to present in their report as part of recommendations and for work beyond TK.
- Stephen provided a refresher on the two Objectives for NAA and CAA, noting the long-term coastal resilience and nature-based solutions for NAA. The CAA objective is similar, with a community desiring to be involved in the solutions. He noted that after pathways identification by CAP in the NAA, there is still plenty of discussion with communities required.
- Stephen facilitated discussion to fill in the thresholds template, using dune width for initial discussion starter. Kelvin asked if dune height or overall volume was important to consider. Derek confirmed volume is important, but CAP may have other ideas to consider.
- Stephen suggested wording "Dune width, height and associated volume" could be what needs to be understood and monitored. He noted that the dune volume thresholds are relevant for NAA and CAA for erosion and may also be useful for inundation.
- Cam suggested that in the NAA, using the Marine Parade, Otaki roadway as an example, is a significant measure top of dune distance to roadway. This could be a good visual cue for the community. Derek said that monitoring by community or citizen science is an important component and can be set by using indicators that are easy to measure.
- Martin noted that community can provide useful input, for example after storms, and impact to dunes and bird nesting. Stephen suggested including monitoring shorebird nesting habitats.
- Don mentioned that in Paraparaumu, the southern end of Marine Parade where the road runs along beachfront, was affected by storms where several metres of property and protection works were impacted. He suggested this as a possible indicator.

	<ul style="list-style-type: none"> • Derek raised whether access to beach refers to both private and public access. He agreed that an appropriate threshold could be the point where community can no longer access beach. Jim noted mother nature moves and how many public access points can the Council realistically maintain. • Susie commented on access to beach from private properties, noting that some beachfront property owners are okay with not having individual beach access. In her area, individual accesses have been combined into one beach access point. Derek queried whether an appropriate threshold should imply that all property owners have their own private access. Stephen noted that thresholds that CAP do not think are appropriate should not be included in this list. • Susie suggested to include a distance threshold, e.g. high tide mark in relation to a property? Derek added that adding a possible threshold, e.g. that relates to <i>“X” metres of dry sand for walking access at high tide</i>, could be useful. • Martin raised the issue of council planning decisions and insurability, and impact to property values. He suggested this as a threshold. Monique confirmed that they included a threshold related to insurance for Amberley Beach. Cam noted that currently parts of NAA will lose road access due to inundation. • On the topic of vehicle access to beach, Derek asked what situation would cause the change in pathway? Don suggested a threshold related to Paraparaumu Beach could be the impact to access to the beach for boat launching. Kelvin agreed that this could also be an issue for Waikanae Beach, and Cam said this is also a factor for NAA. Stephen noted vehicle access threshold is more related to erosion hazards. • Cam added that some communities in NAA are cut off due to inundation, so road access to properties would be a good threshold. • Derek suggested including thresholds related to access to critical water services or keeping septic tanks operational. Cam agreed and said this is important for some NAA communities, like Peka Peka and parts of Otaki Beach, where properties with septic tanks have problems with inundation. • Yvonna suggested that the risk assessment provide an indication of the number of properties likely to be impacted. She suggested a potential threshold based on using a % of properties that have been impacted and including other factors like frequency of impact. Derek agreed that this is an appropriate strawman threshold, as it directly impacts communities. • Stephen asked Moira for advice on adding a threshold related to mahinga kai. Moira agreed. • Stephen recapped on thresholds proposed and their relevance and applicability to erosion and inundation hazards in NAA and CAA. Stephen thanked CAP for their input and handed the discussion back to Jim. • Jim thanked CAP and invited others to comment. No further discussion. <p>The CAP’s draft strawman thresholds from this session can be found in Appendix 1 to these minutes.</p>
Next Steps	<p>Abbey Morris (KCDC)</p> <ul style="list-style-type: none"> • Abbey confirmed that the next CAP meeting will be online, at 2-4pm, on Wednesday 6 December 2023, and will cover <i>Risk based assessment planning for district planning</i>. • On Thursday 7 November 2023, 2-3pm <i>Ecoreef</i> will be doing a presentation to CAP. • There is another in-person Extended CAP Meeting CAP meeting from 1-6pm on 13 December 2024, covering <i>RAA MCDA Scoring</i>.
Closing Karakia	By Abbey

ATTACHMENTS
NAA & CAA Signals, Triggers and Thresholds Memo
NAA & CAA Signals, Triggers and Thresholds Pathways Presentation (PowerPoint)

Appendix 1: Takutai Kāpiti: Draft Thresholds Template for NAA and CAA

CAP's Draft NAA and CAA Strawman Thresholds

Threshold Name/Subject	Parameters	NAA Erosion	NAA Inundation	CAA Erosion	CAA Inundation
<i>Dune width, height & associated volume</i>	<i>The dunes at _____ Beach are less than ___ m in width, height and volume</i>	x	x	x	x
Distance between Marine Parade, Otaki (road) and dune toe		x			
Shore birds' habitats					
Safe public access to the beach	Safe public access is damaged x times over x years				
Distance of dry sand along the beach which can be safely walked along					

CAP’s Draft NAA and CAA Strawman Thresholds Continued

Threshold Name/Subject	Parameters	NAA Erosion	NAA Inundation	CAA Erosion	CAA Inundation
Insurance	X properties not able to get insurance in x years First property loses insurance Insurance premiums increases to become unaffordable	X	X	X	X
Inability to access beach to launch private boats		x		x	
Road access reduced due to inundation	X times in x years that people loose road access to their property		x		x
Septic tanks	Septic tank unable to be used x times in x years		x		
Properties being damaged by inundation	X house x times in x years				
Mahinga kai	Reduction in ability to gather shellfish				