CLIFTON TO TANGOIO COASTAL HAZARDS

STRATEGY 2120

MINUTES OF THE NORTHERN AND SOUTHERN CELL ASSESSMENT PANEL SUPPLEMENTARY WORKSHOP HELD AT THE EASTERN INSTITUTE OF TECHNOLOGY, TARADALE, NAPIER AT 5.00 P.M. ON THURSDAY 27 APRIL 2017

PRESENT

Panel Members:
Northern: Garry Huata, Douglas Dickson, Mark Levick, Steve Loughlin, Dorothy Pilkington, Martin Rockel, Hoani Taurima, Shaun Thompson-Gray.

Southern: Martin Bates, Tom Evers-Swindell, Mike Harris, Paul Hursthouse, Peter Kay, Brent McNamara, Mark Mahoney, Bruce Meredith, Keith Newman, Aki Paipper, Duncan Powell, Maurice Smith, Waylyn Tahuri-Whaipakanga, Dave Wells.

Facilitation Team:
Peter Beaven (Chair), Simon Bendall, Jan Seaman (Minutes).

Observers:
Paul Bailey, Larry Dallimore, Rod Heaps, Tania Kerr, George Lyons, Tony Jeffery, Sandra Hazlehurst, Malcom Dixon, Geraldine Travers, Simon Nixon, Ann Redstone, Kevin Watkins, Faye White, Richard McGrath, Api Tapine, Bruce Lochhead, Graeme Hansen, Gary Clode, Mark Clews, Craig Goodier, Trudy Kilkolly, Drew Broadley, Dean Moriarity, James Minehan, Emma Ryan, Laura Robichaux, Paul Schneider, Jack Hughes (WOW).

Technical Advisors:
Rob Bell, Johnathan Clarke, Mark Dickson, Richard Reinen-Hamill.

APOLOGIES

Craig Daly, Stephen Daysh, Peter Paku, Jagwinder Pannu, Mike Penrose, Tim Tinker, Jamie Thompson, Michel de Vos, Oliver Postings, Sarah Owen, Te Kaha Hawaikirangi, Des Ratima, Rina Douglas, Terry Wilson, Paul Kench.

WELCOME & KARAKIA

Peter Beaven welcomed those present and thanked them for their attendance. Garry Huata opened the meeting with a karakia.

PRESENTATIONS

1. Pre-recorded video presentation from Dr Paul Kench, who was not present at the meeting, aimed to provide clarity on what managed retreat was and how it had been implemented in the past.

2. Laura Robichaux's presentation explored further examples of managed retreat. In the US example shown, which was a cultural restoration as well as managed retreat project, a 400-household Native American community was relocated. The government contributed US$48m and the residents did not contribute directly to the relocation. In another instance the US government provided a sum of money for five communities, who will decide what to do with the money within a certain time period.
   Action: *Information on the Kairakau Beach managed retreat project in HB to be obtained.*

Studies on the cost of managed retreat in NZ queried. Confirmed part of the Living at the Edge project will look at the economics of this but no information available at this time.

Four steps outlined in the key considerations. Queried whether there was a natural progression for action. The first step would be to find out how the community felt about managed retreat and what level of risk they would be willing to accept. Timing would be the next step, followed by scale.

The government's willingness to contribute financially was queried, with the scale of coastal communities at risk in NZ in the coming decade. The Edge Technical Advisory Group has been sent a report which includes brief examples for NZ. A further report is expected any day in relation to the Deep South challenge around resilience and coastal adaptation.
Action: *Emma to come back with information.*

3. Jonathan Clarke's presentation showed real life examples from the UK and how the policy of managed retreat worked. In the first example, which was an erosion issue, twelve properties were relocated back beyond the village. It is possible that in 50 years time they will have to be moved again. In this particular instance the land along the coastline was very susceptible to erosion. Where houses were purchased 40% of the market value was paid. Following the retreat, the land was usually turned into a reserve for use by the public.

   Almost all the coastline in the UK is populated, with some communities being more at risk than others. Most councils have introduced development controls or restrictions, as well as a stage where it is no longer possible to make improvements to properties at risk. There are examples of people grouping together or an industry coming forward to offer financial assistance. There are individual strategies done on a local basis but these require sign-off by central government. The government has made a prior determination as to what part of the coast is defendable and what is not. Local governments work within these regulations or determinations.

   There is always a lengthy consultation process carried out, similar to the process currently being carried out by these assessment panels. The government in the UK is against compulsory purchase. The initial process started around 1996, with a strategy being formed in 1998; it is becoming a bigger issue for the government now. In NZ the government has not developed a similar strategy and the panels will need to make a call as to the appropriate strategy for their area.

   Queried whether a conversation was being held with the government about them coming up with a process. This is not likely in the near future. The Living at the Edge report sets out a process for local communities to make determinations.

   Comparison between the UK and Netherlands queried. In the Netherlands 78 – 80% of the country is below sea level and their funding model is different. There are 70 million people and 350 kms of coastline and everyone pays for protection. The policy now is for soft protection not hard protection. US$2.5 m p.a. per kilometer is spent in coastal management to pump sand to the shore.

GROUP/PANEL DISCUSSION – MANAGED RETREAT IN HAWKE'S BAY

WOW had forwarded a list of issues around managed retreat and Keith Newman was asked to speak to the issues raised. His address covered what had been done in the Waitangi/Clive and Cape Coast areas and the general opposition by these coastal communities to managed retreat.

It was noted that the views of communities would need to be turned into a strategy to be put before the HBRC and that managed retreat was one of a number of options to be considered by the panels.

Portability of NZ houses questioned, especially those built on a permanent foundation. Confirmed timber-framed houses on piles were relatively easily moved. Tauranga city has permitted houses to be built in a 50 – 100 year sea erosion area that are capable of being relocated. It is also necessary to have a place to move the house to if required.

Dr Paul Kench's comments (contained in Keith Newman's address) highlighting Haumoana as a model for the managed retreat option were queried. While Paul Kench wasn't in attendance to respond directly, members of Edge noted that there were a number of coastal settlements in New Zealand which would inevitably have to move away at some point, as coastal protection could not be sustained indefinitely. Once sea level rise starts it will continue for some hundreds of years, although the rate of rise is debatable and uncertain. This was the intended context of Paul Kench's comments.

It was confirmed that an adaptive pathway is what the panels would need to consider, which may see hard or soft engineering in the first instance rather than managed retreat. This was one of the reasons for breaking the coastline areas down.

The area from Kairakau Beach northwards is currently being looked at in regard to coastal erosion and sea level rise, however, Kairakau is mostly rocky and is different to the areas being considered by these panels.

The recent storm events and damage/flooding in the Clive area was raised. The panel advised that current thinking is that the number of storms is not likely to increase, however, there could be a higher number of intense storms. This would result in more frequent inundation, which would create hazards over a wider area.

The differentiation between managed retreat and emergency evacuation was raised.
Usually all losses would involve insurers, however, in the end the Councils applying the Building Act would determine whether buildings could be re-occupied.

Questioned whether there had been changes to the RMA that impact on hard engineering as a solution for coastal areas. Confirmed the NZ Coastal Policy Statement generally discouraged hard engineering, however does not preclude it. It sets out more sustainable approaches and would prefer a strategy for a move away from hard engineering for the longer-term. It is necessary to fully consider all the options, engage with the community and have an agreed outcome.

The NZ Coastal Policy Statement requires that planning for coastal hazards must occur for more than the 35 year maximum consent term that can be given to hard engineering structures – it must be for the next 100 years. If it is proven that all options have been considered and the best option is hard engineering, policy changes could be considered to facilitate this response. The community has the ability to influence this change. The threshold for trigger points should be mapped as part of pathways and what will happen in the longer-term. As an example of triggers, a South Australian community has indicated that after 2 – 3 more flooding events they will move to a managed retreat.

This is governed by events not a timeframe. Triggers may not always be climate change or risk-based – a trigger could be cost-based or based on practicalities.

There is a built-in monitoring and review process for the pathway, which is critical. It is important for the people in the communities to be engaged and know what is going on.

Consideration of technological advances taken into T&T assessments for probabilities was queried. Confirmed likelihoods considered a range of possible sea level rises. It is important to come up with a "no regrets" plan with flexibility and pathways.

Question 6 identified by panel members - working with nature solutions for coastal erosion and inundation. The UK managed re-alignment is along some of the lines suggested, with options to create salt marshes. Cost was less than 10% of that to build a sea wall. This is a possible option identified for East Clive and others.

Question 7 – beach revetment via planting. The time to re-establish boxthorn or other plantings is not known, however, it would help stabilize the crest. Fresh water would be required for plants to thrive. In the past boxthorn thrived and held the gravel. Vetiver grass, which helps with erosion and is salt hardy) is being trialled by the HDC.

Question 9 – offshore reefs/breakwaters. These break wave energy and can be explored, however, they need to be robust structures. They would not be suitable to erect in front of river mouths. Anywhere a groyne could be put would also suit reefs/breakwaters. They are complex to build and take a lot of material.

Seabed replenishment for the northern cell was queried. Raising the sea level in front of the beach would help with wave energy and in principle, with the right material it is possible. Moving further offshore would require larger volumes of material. The Westshore area was uplifted after the earthquake and is now eroding so would require more effort to maintain. Seabed renourishment could be considered as one of the various options for Westshore, where it is more an erosion risk rather than inundation.

In regard to accretion at Awatoto, council's beach monitoring has shown a slight accretion towards Clive with the reduced amount of shingle removed. It would take time to build up to a significant level and most benefit would be from Awatoto to the outfall. In any effort to recycle the gravel further south, the coarser material would become sand through abrasion as it moved north so at some stage augmentation is likely to be required. Extraction at Awatoto will cease around the end of May as the resource consent expires, and the expectation is that it only will benefit the south up to a point.

Accretion affect on river mouths queried. It was noted that more volume of gravel on the coast would create more challenges to the river discharges. It isn't known if it would be best to establish one permanent opening/mouth for the three rivers as it would block the flow of gravel southwards. Prior to extraction of shingle at Awatoto there was a fan of shingle in the area so some slight undulation of the coastline would be expected.

Shingle build-up in the rivers, especially middle Tukituki. The question was raised whether transport of this material could be beneficial to landowners from a flood control perspective as well as having a role to play in beach renourishment. The cost of transporting the material would need to be ascertained and then it could be considered as an option, with benefits or synergies identified.

Issue of building permits on the coastline queried. Suggested recent permits may not have been in a Coastal Hazard Zone or perhaps the buildings would be relocatable. Two permits on Nth Shore Road are just out of the zone.
Action: Mike to follow-up on this point.

Thanks were extended to the presenters and panel members for their contribution to the meeting.

The meeting closed at 8.00 p.m.