



CLIFTON TO TANGOIO COASTAL HAZARDS STRATEGY 2120

Supplementary Workshop – 27 April 2017

Technical Questions identified by Panel Members

The following questions have been raised directly by Panel Members, either through the Workshop Evaluation process being run by the Edge team, or by email to hbcoast.co.nz. We will endeavour to discuss all questions during the supplementary workshop, and will also welcome any further questions from the floor.

Uncertainty and Debate

1. This is uncertainty in rate of future sea level rise and associated risk; how should we / can we make decisions with this level of uncertainty?
2. There appears to be debate between different experts/scientists around the coastal processes in Hawkes Bay (particularly around Westshore) – how can we traverse this and access all reports commissioned by local authorities.
3. The lack of historical data makes understanding current and future situation difficult – can we see historical imagery/aerial photographs of the coastline from early 1900s (as far back as can go) to today.
4. We are dealing with modelled hazards risks – how likely is it that the models will match what actually happens? What happens if it's not as bad / is worse than the model? What can we do about this uncertainty?
5. There is a wide range of technical understanding amongst panel members – how much technical understanding do we need to have in order to complete our task in an effective way?

Management Options

6. Working with nature solutions for coastal erosion and inundation - what has been tried elsewhere (e.g. re-establishing, creating or expanding lagoons, wetlands etc.), is there any science to back such practices and what success has been had?
7. Can we explore beach revetment via planting - we know that boxthorn works, what can take its place?
8. There has been a reluctance to discuss hard engineering options – why is that?

9. Can we explore offshore reefs / breakwaters – how they work, pros and cons, where might they be effective

Science Questions

10. Material transport along the coast – how does it work, where does it come from / go to
11. Pre- and post-earthquake coast – how the coast responded to the earthquake.
12. Using the 'Historic shoreline change trends graph' put together by Tonkin + Taylor, it looks reasonably obvious that Erosion is occurring from site HB1 to site HB6 (other than site HB4A – the groyne at the Tuki Tuki river mouth) and Accretion is occurring from site HB7 to HB12 (Napier).
 - a. Is it correct that this accretion (or build-up) has been occurring from sites HB7 to HB12 even with the extraction of 30,000m³ at Awatoto?
 - b. If yes – with the stopping of the extraction at Awatoto, with this accretion be even more apparent?
 - c. If this 30,000m³ from Awatoto was moved back to Clifton (and perhaps 50% to Haumoana) annually, could this potentially help reduce Erosion at sites HB1 to HB6?
 - d. In the teams professional opinion, would the relocating of the 30,000m³ back to Clifton/Haumoana annually be enough to minimise erosion at sites HB1 to HB6, or would this need to be complemented with groynes.
 - e. If YES to the question above, where would it be best suited for these groynes to be located between HB1 and HB4A.
 - f. Where does the gravel that is moving from sites HB18 to HB23, end up?

Managed Retreat Questions – raised by WOW in document circulated by email 18 April 2017

13. If retreat is enacted would it be piecemeal, eg one or two houses at a time, voluntarily or as part of a 'planned' retreat where this occurs within a specific timeframe?
14. At what point does removal go from optional to a legal requirement?
15. Where would these people go?
16. What responsibilities do property owners have for the land they are forced to vacate?
17. Are they required to remove septic tanks, foundations and plumbing or is that the responsibility of local authorities?
18. What period of notice is required for people to remove their homes?
19. What would be the legal consequences to those refusing to move?
20. How do councils assist in relocation or is that left up to individual property owners?
21. How would councils assist those who cannot afford to move or clean up their properties?

22. Who takes care of resource and building consents for removal and clean up?
23. What compensation is offered for people to move? (Market rates?)
24. Will the councils require resource consent to remove the properties for the proposed realignment of Beach Rd?
25. Will the councils need resource consent if they seek to remove the 18 at-risk homes?
26. At what point would property owners no longer be required to pay rates on at risk or removed properties?
27. If a decade after 'managed retreat' the foreshore is still intact and the land is unused do the original owners have some claim on it?
28. Does the land resort to public or council ownership, DOC or beach?