



## Meeting of the Clifton to Tangoio Coastal Hazards Strategy Joint Committee

**Date:** Monday 2 May 2016  
**Time:** 10.00 am  
**Venue:** Council Chamber  
Hawke's Bay Regional Council  
159 Dalton Street  
NAPIER

### Agenda

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ITEM	SUBJECT	PAGE
1.	Welcome / Apologies	
2.	Conflict of Interest Declarations	
3.	Confirmation of Minutes of the Clifton to Tangoio Coastal Hazards Strategy Joint Committee held on 10 March 2016	
4.	Matters Arising from Minutes of the Clifton to Tangoio Coastal Hazards Strategy Joint Committee held on 10 March 2016	
5.	Confirmation of Stage One of the Clifton to Tangoio Coastal Hazards Strategy 2120	3
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10.	Update on the Port of Napier	59
11.	Other Matters for discussion	

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**Monday 02 May 2016****Subject: CONFIRMATION OF STAGE ONE OF THE CLIFTON TO TANGOIO  
COASTAL HAZARDS STRATEGY 2120****Reason for Report**

1. This report seeks a resolution from the Joint Committee to adopt as final the two reports prepared by Tonkin & Taylor, and in doing so confirm the outcome of Stage One of the Clifton to Tangoio Coastal Hazards Strategy 2120.

**Discussion**

2. Stage One of the strategy is to 'define the problem' of coastal hazards between Clifton and Tangoio. This has been done through the work of Tonkin & Taylor and is presented in two reports:
  - 2.1. Clifton to Tangoio Coastal Hazards Strategy 2120: Coastal Hazard Assessment. Tonkin & Taylor, May 2016
  - 2.2. Clifton to Tangoio Coastal Hazards Strategy 2120: Coastal Risk Assessment. Tonkin & Taylor, May 2016
3. The findings of these reports have previously been workshopped with the Joint Committee.
4. At the last meeting of the Joint Committee on 10 March, 2016 both reports were adopted as drafts for consultation with stakeholders.
5. On 31 March a session was held with the Westshore Residents and Development Association ("WRDA") and Walk on Water Limited ("WOW"). Separate meetings have also been held with the Port of Napier and Lifelines, and are ongoing with marae within the strategy area.
6. As a result of these sessions, formal feedback has been received from:
  - 6.1. Westshore Residents and Development Association – Chairman Richard Karn
  - 6.2. Westshore Residents and Development Association – Treasurer Dorothy Pilkington
  - 6.3. Larry Dallimore
7. These submissions, and responses to them prepared by TAG, are provided as attachments to this report. Richard Karn and Larry Dallimore will also speak to the Joint Committee in support of their submissions.
8. A number of changes to the reports have been made in response to these submissions, principally to assist with readability. These are highlighted in the responses.
9. It is also noted that TAG have requested an amendment to remove a 'max' line from the coastal erosion assessment. This line represents a probability of less than 1% likelihood of occurrence and has been included to show the full range of modelled outcomes including those at the extremely unlikely end of the spectrum. Given that it is extremely unlikely for this land to actually be affected, it is not useful for any realistic planning response. TAG have requested the consultant utilise the 1% probability as the maximum extent used for hazards mapping and LIM notification.
10. It is also noted for completeness that TAG have accepted a recommendation from Tonkin & Taylor that we should not assume the sea exclusion wall at East Clive is maintained beyond the point at which coastal erosion is modelled to overcome it. This means that at 2120, coastal inundation is modelled to affect a large area of Clive which is previously (i.e. at present day and 2065) unaffected. While it is likely that a sea exclusion bank will continue to protect this area beyond 2120, it may be in a new

location (i.e. inland) and TAG felt it prudent not to prejudge an outcome from Stage 3 and assume this decision (and its financial implications) as a given.

11. Should the Joint Committee accept the recommendation and adopt the two Tonkin & Taylor reports as final, this information will be formalised and ported to the Hawke's Bay Hazard Information Portal. It will also mean that any Land Information Memorandum ("LIM") requested for a property within an area identified in the reports will include notation confirming the reports and their findings as information held by Council.
12. Given the size of the two reports, a link will be circulated to Joint Committee members ahead of the meeting to enable them to download electronic versions.

#### **Recommendations:**

1. That the Clifton to Tangoio Coastal Hazards Strategy Joint Committee confirm the following Tonkin & Taylor reports forming Stage One of the Strategy as final:
  - 1.1. Clifton to Tangoio Coastal Hazards Strategy 2120: Coastal Hazard Assessment. Tonkin & Taylor, May 2016
  - 1.2. Clifton to Tangoio Coastal Hazards Strategy 2120: Coastal Risk Assessment. Tonkin & Taylor, May 2016.

**Simon Bendall**  
**PROJECT MANAGER**

#### **Attachment/s**

- 1 Feedback received from Westshore Residents and Development Association Chairman Richard Karn
- 2 Response to Westshore Residents and Development Association Chairman Richard Karn
- 3 Feedback received from Westshore Residents and Development Association Treasurer Dorothy Pilkington
- 4 Response to Westshore Residents and Development Association Treasurer Dorothy Pilkington
- 5 Feedback received from Larry Dallimore
- 6 Response to Larry Dallimore

## WESTSHORE RESIDENTS' AND DEVELOPMENT ASSOCIATION Inc

### Second round of feedback on the Coastal Hazard Assessment & Mapping Webpage provided by Tonkin & Taylor (T+T)

The second draft of the Coastal Hazard Assessment report now has an Executive Summary which is helpful.

Although the NZ Coastal Policy Statement 2010 (NZCPS) was mentioned briefly in the Executive Summary, there was no mention of the actual policies relevant to this predictive coastal hazard study. These policies set the broad principles from central Government that we all need to be aware of.

Similar reports done last year by T+T for Christchurch City Council and Western Bay of Plenty District Council include an informative section on the NZCPS. We think it would be sensible to include a similar section in the Hawke's Bay report on the NZCPS.

#### LIM Report Tagging

The Coastal Hazard committee is of the opinion, based on legal advice, that whatever is in the T+T report needs to be notified on a property LIM. This includes the extremely low probability (1%) erosion lines in 50 and 100 years time.

Q1) If this is the case, why did the Christchurch and Western Bay of Plenty Councils not show 1% probability lines on their erosion maps ?

Both these Councils show only a single line on their erosion maps for +50 years (66% probability), and +100 years (5% probability). They don't show 4 erosion lines for each half century case.

We accept that you are not notifying hazard **zones** on May 2, only hazard **extents**, or the "likelihood of coastal hazard **effects**." However, irrespective of the exact words being used here, what you are doing is taking the first step towards notifying coastal hazard **zones**. This raises some obvious questions:

Q2) When the time comes to select the actual hazard zone lines, how will you decide which ones to use ?

Q3) When that happens, can a TLA then create rules that pertain to the hazard zone ?

Q4) Can the TLA strike a different rating factor for properties within the hazard zone ?

Q5) Will the TLA notify property insurers of any future hazard zones ?

Q6) Will the TLA send letters to property owners in the future, who had their LIMs tagged on May 2, 2016, un-tagging their LIMs, if they are no longer in the yet to be selected hazard zones ?

I would like to speak to this submission, at the May 2 Joint Committee Meeting.



Richard Karn  
Chairman  
Westshore Residents & Development Association  
15 April 2015





Richard Karn  
Chairman  
Westshore Residents and Development Association

27 April, 2016

Via email [rikan@xtra.co.nz]

Dear Richard,

**RE: WRDA FEEDBACK ON COASTAL EROSION HAZARD MAPPING**

Thank you for your letter dated 15 April 2016 provided in response to the stakeholder feedback session held on 31 March 2016.

I look forward to your attendance and presentation to the Joint Committee at our meeting on 2 May 2016. In the meantime, I wanted to provide a response to the matters raised in your submission, which may assist in your presentation and any further questions you may wish to ask of the Joint Committee.

***Feedback on Technical Report***

Your feedback regarding better coverage of the New Zealand Coastal Policy Statement 2010 in the T&T report has been provided to T&T. I agree that there is value in describing this in more detail.

***LIM Report Tagging***

You raise a number of questions under this heading, and I respond to each below

**Q1) If this is the case, why did the Christchurch and Western Bay of Plenty Councils not show 1% probability lines on their erosion maps?**

Both examples you mention are related to proposed District Plan changes, where new hazard zones have been selected (from various probability options) and mapped. We are not mapping hazard zones with regulatory effect; we are showing where we have information on potential hazard risks. Whether or not we use this new information to review or change the existing hazards zones in Hawke's Bay is a decision for Stage 3. Our process is fundamentally different to those two examples, which is why we have a different approach. A recipient of a LIM report will make their own judgment based on this information.

**Q2. When the time comes to select the actual hazard zone lines, how will you decide which ones to use?**

Any changes to existing hazard lines in the Napier District Plan and Hawke's Bay Regional Coastal Environment Plan will need to go through a full public notification and submissions process under

the RMA. The process leading up to any notification has not yet been designed in detail, nor has any decision been made that the hazards lines (or the rules that apply to them) in the current plans necessarily need to change. This will be decided in Stage 3.

**Q3) When that happens, can a TLA then create rules that pertain to the hazard zone?**

Yes, bearing in mind that any such rules changes would need to be fully publicly notified, with submission and appeal rights, as per any change in a regional or district planning document.

**Q4) Can the TLA strike a different rating factor for properties within the hazard zone?**

Yes. Local Government has a variety of options for rating and paying for public amenities and services. Targeted rates are commonly used in New Zealand by local and regional councils. In Stage 2, currently underway, we are investigating a variety of funding methodologies and will develop a recommendation for the Councils to consider.

**Q5) Will the TLA notify property insurers of any future hazard zones?**

As noted, any change in the existing district and regional plan requires full public notification.

**Q6) Will the TLA send letters to property owners in the future, who had their LIMs tagged on May 2, 2016, un-tagging their LIMs, if they are no longer in the yet to be selected hazard zones?**

Whether or not the hazard zones change is one part of the picture; only physical works or some other physical response will actually change the hazard risks. Also, more or new information may change the picture (e.g. refined sea level rise predictions). Clearly, reviewing our information on a regular basis is important, and should a review alter how we tag LIMS, then I would expect property owners to be notified. While a formal review period for the strategy has not at this stage been confirmed, initial thinking is that this is expected to occur approximately every 10 years. This will be confirmed in later stages of the strategy.

Thank you again for your ongoing involvement and feedback. I look forward to seeing you on the 2<sup>nd</sup> of May.

Yours sincerely,



Peter Beaven  
Hawke's Bay Regional Councillor and  
Chair of the Coastal Hazards Committee



### **Feedback on Coastal Hazard Assessment Reports, in regard, specifically, to LIMs**

The system being established is that the individual property owner seeking information on the potential coastal hazards relative to his or her property will access the mapping tool on the Regional Council website. As per the wording currently proposed for LIMs: "It is the landowner's responsibility to determine whether the property is suitable for any proposed activity or whether any proposed building site is suitable for development (and to undertake tests if necessary)."

The mapping tool will not provide sufficient information upon which to base a well-reasoned decision by the property owner – or, indeed, other users, such as a potential purchaser of that property.

Simply providing maps with arbitrary lines indicating the results of the data analysis carried out by Tonkin and Taylor is not enough. If the landowner is to discharge his or her responsibility as set out in the proposed statement, backup information to the maps **MUST** be easily accessible and presented in a way that is easily understood.

This necessary background information is in the reports upon which the maps are based.

For the layman, the way that the Tonkin and Taylor reports are presented makes it extremely difficult for anybody accessing them for the first time to locate and interpret the information they need to make a well-reasoned decision.

The methodology of the reports is, of necessity, based on a number of technical terms, and the conclusions reached are the results of calculations based on equations with the data set out in tables. Abbreviations for terms unfamiliar to the layman are used liberally throughout the reports and the numerous tables contain many columns of figures. This means that the reports are not easy to read and interpret. Furthermore, in the current draft, many of these tables run onto a second page, so that all the data cannot be viewed simultaneously and it becomes even more difficult to relate one data set to another.

With regard to use of abbreviations the term annual exceedance probability—which is absolutely basic to understanding of both the maps and these reports—is used in the abbreviated form AEP repeatedly throughout both reports. The exact meaning of this term needs to be explained clearly on the first page of each of these reports. It is impossible to interpret the maps unless the viewer understands that a 1% AEP event is based on a 100 year return period, 10% AEP event = 10 year return period, and 0.5% /a 200 year return period.

In addition the writers of these two reports have found it necessary to use two different systems to identify the various locations being assessed. In the Coastal Hazard Assessment Draft Report, there are 23 locations assessed, which are identified numerically as "cells". These run in a northerly direction from HB BM 1 at Clifton to HB BM 23 at Tangoio. However, in the Coastal Risk Assessment Report the assessment is based on a number of "mapping units". The actual

number of areas assessed is reduced from the total number of cells in the Coastal Hazard Assessment Report, and the units are, instead, identified by letters of the alphabet. In addition, the classification in this report runs from the opposite end of the study area, at Tangoio in the north (A), to Clifton in the south (identified as L), with the addition of four inland areas identified with the letters M to P.

The use of these two different assessment classifications is very confusing when first encountered

Likewise, in addition to the AEP, there are several sets of criteria described in the reports that have formed the basis for assessing the degree of hazard according to type:

In particular, in the Coastal Risk Assessment Report the “simple weight assignment procedure” applied for assessment of coastal erosion hazard is:

No exposure < 1%;

Low 1% to 30%,

Moderate 30% to 70%,

High 70% to 90%

Very High > 90%

In the Coastal Hazard Assessment Report there is reference to the Intergovernmental Panel of Climate Change (IPCC) “Likelihood of scenario occurring within the selected planning horizon” definitions are set out as follows:

Exceptionally unlikely (<1%)

Very unlikely (1-10%)

Unlikely (10-33%)

Medium (33-66%)

Likely (66-90%)

Very likely (90-99%);

Virtually certain (> 99% chance that a result is true)

At present, the reports form an essential part of the information an owner or potential purchaser of a property needs to be able to make a decision regarding its development, use, or purchase. To serve this purpose, at present these reports are simply not in an appropriate form.

The Committee has obtained an opinion that, having now received these reports, they are legally obliged to place the information on LIMs. However, the obligation of Council is not limited to legal compliance. Local and regional governance also includes a moral obligation to present the best information to

ratepayers and residents, and to act in the best interests of the community they serve. Placing information of this type on LIMs will have farreaching implications for affected residents. In view of this, much more thought needs to be given to how best to interpret and convey the content of the reports to property owners on their LIMs.

Dorothy Pilkington

88 Charles Street, Westshore

Treasurer, Westshore Residents' and Development Association.

14 April 2016

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Dorothy Pilkington  
Treasurer  
Westshore Residents' and Development Association  
88 Charles Street  
Westshore

27 April, 2016

Via email [dorothy.pilkington@gmail.com]

Dear Dorothy,

**RE: Feedback on Coastal Hazards Assessment Reports, in regard, specifically, to LIMs**

Thank you for your letter dated 14 April 2016 provided in response to the stakeholder feedback session held on 31 March 2016.

Firstly, I note your concerns about the accessibility of the Tonkin and Taylor reports and interpreting the information within them. We have made a number of changes to the reports in an effort to make them easier to use and understand. These changes include:

- An updated glossary of terms which will include abbreviations used in the reports, noting the list you tabled on 31 March has been provided to T&T for incorporation and I thank you for that;
- The numeric cells 1-23 have been relabelled with names to make these easier to identify; and
- We have also taken on-board feedback regarding the online mapping tool, and are making changes to make this more user friendly, including an easier to access address search tool other interface changes.

You have also queried the use of two different systems in the reports to identify the various locations being assessed. To clarify this, the 'HB' labelled cells are referring to actual existing monitoring locations where beach profile data is collected, where the mapping units capture parcels of coastline used for assessing risk.

Finally, I refer to your comment on LIMs, and specifically information to be recorded on these documents. Following feedback from residents, work continues within the Councils to determine the best way of recording this information that will ensure that residents affected are informed appropriately.

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'Peter Beaven'.

Peter Beaven  
Hawke's Bay Regional Councillor and  
Chair of the Coastal Hazards Committee





P.O. Box 12 085 - Ahuriri - Napier 4144  
Tel: 06 835 5532 – Mob: 021 136 9932  
Email: larryd@xtra.co.nz

14 April 2016

Coastal Strategy Joint Committee  
HB Regional Council  
Napier

### Feedback on Coastal Hazard Assessment

Thank you for the opportunity to provide further feedback on the Strategy to address sea level rise on the HB gravel coast.

Coastal erosion due to climate change needs a strategy but current isolated erosion due to impeded flows of beach replenishment needs urgent attention. The next severe swell event will cause major damage at Westshore Beach and confirm Councils attempts to control or mitigate erosion have failed. This erosion recognised by NCC in 1985, has very little to do with climate change.

NCC is protecting Hardinge Road but Councillors will not attend to Westshore so we have to accept any durable solution is now dependent on the HBRC Coastal Strategy Committee. Both beaches are remnants of seaward growing spits in a constant state of accretion and both suffer from isolated man-made permanent erosion.

NCC and HBRC engineers convinced Councillors that Westshore Beach erosion is natural, under control and nourishment should continue because they maintain most of the coastline is holding to the 1986 alignment. This disputed detail supplied by NCC was adopted by the Joint Committee meeting in December 2014.

The beach barrier ridge formed at Westshore after the 1931 earthquake has almost eroded and the weak material imported as nourishment is providing minimal coastal protection. The beach is narrower with a steep gradient and the critical nearshore seabed sediment has been depleted. Restoring this ignored deficit is a major task.

Councils have imported totally inadequate quantities of incompatible pebbles and river shingle to replace fine sand. Nourishment is better than nothing but it has exposed private property and city infrastructure to extreme risk. The attached beach profiles using HBRC data is evidence the NCC solution since 1987 has failed.

1. I fully support the Westshore Residents Association submission on LIM report tagging limited to 66% probability for 50 year Erosion Zones and 5% probability for 100 year Erosion Zones. [see page 3](#)
2. Please consider profile A with approx 3:1 scale and profile B at HB13. They show a stable beach barrier ridge and nearshore between 1975 and 1979. This profile was consistent up to the early 1980's. [see page 4](#)
3. Please consider profiles C & D at HB13 showing uncontrolled erosion to the beach barrier ridge and nearshore out to approx 350m. This erosion from the early 1980's coincides with Port development to harbour larger ships. [see page 5](#)



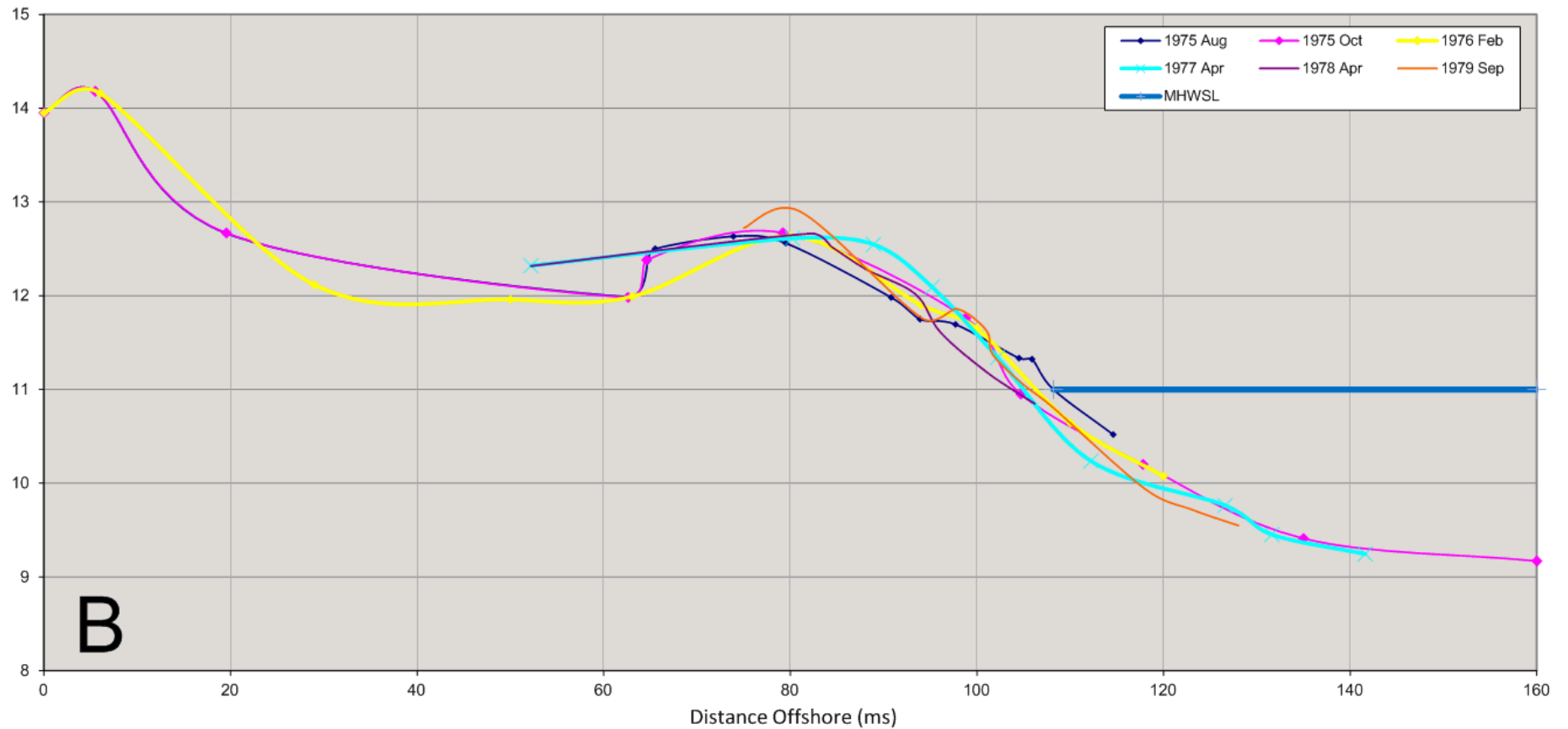
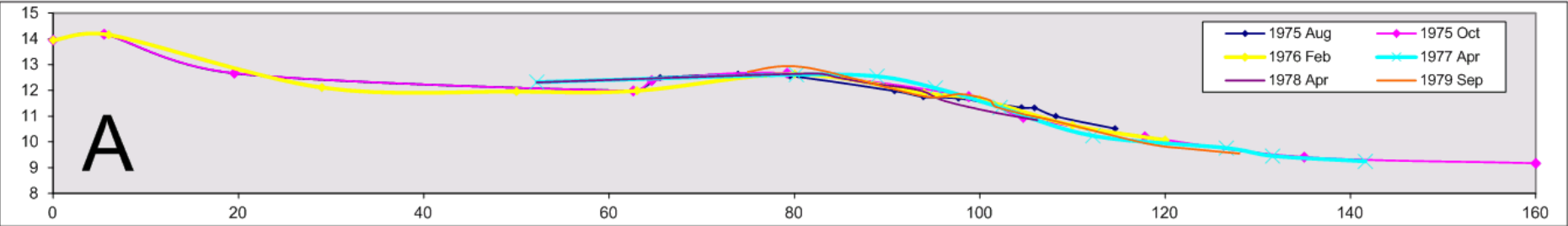
4. Please consider profiles E & F at HB13 showing the offshore seabed between Westshore Beach and the northern side of the shipping channel. The seabed remains stable and shows no evidence of significant erosion. [see page 6](#)
5. Please consider profile G & H at HB13 showing 25m of beach has been lost at MHWS and 78m of beach has been lost at MLWS since 1975. The loss of beach by erosion above MHWS shows the coastline is not holding and confirms the Nourishment Scheme is totally inadequate. [see page 7 & 8](#)
6. Please consider the contour map produced by Dallimore in March 2015 and a wider area map produced by the Port of Napier in September 2015. Both contour maps confirm gradual growth of the sediment deficit between the beach and 350m to 400m offshore. HBRC engineers had no knowledge of the Port's sudden interest in the seabed off Westshore Beach. [see page 10](#)
7. Please consider the extract from Komar Report 2014 as presented to NCC in April 2014. Dr Cowell disagrees with Prof Komars conclusion which is consistent with his review of other reports in 2005. Komars only mention of the Port shipping channel was the importance of using dredged sand to assist recreational use at Westshore Beach. The Port eventually used a smaller dredge in 2015. [see page 11](#)
8. Please consider returning only sand to replace sand at Westshore. According to Komar in 2013, the sand (avge 30,000m<sup>3</sup> each year) trapped in the Port shipping channel would otherwise naturally replenish Westshore Beach. The Port should ensure all regularly dredged sand is dumped where it can benefit the beach. Serious consideration should be given to hard engineering as an affordable durable solution to control the loss of land on a beach in a permanent state of erosion. A sandy beach may not be affordable at the southern end. [see page 12](#)
9. Please review my first submission and consider a meaningful explanation to items highlighted in the response from Chairman Peter Beaven. [see page 13](#). The 43 page extract supporting the impact of the Ruataniwha Dam on the HB gravel coast, as presented to Peter Beaven is available as required.
10. Besides climate change, please consider an assessment on the diminishing or reduced gravel supplies entering the coast via the Tukituki River and the impact on existing and future erosion on gravel beaches between Clive and Tangoio. Also the contribution by mechanical extraction from the rivers and all man-made impediments such as dams, shoreline structures and alterations to the seabed.
11. Please consider Councils failure to effectively protect private and public property from man-made erosion resulting in 374 private properties listed in Tonkin & Taylors latest series of Coastal Erosion Zones. NCC continuing to adopt the cheap solution when it obviously failed is directly responsible for LIM report tagging, loss of land value and limited insurance cover on private property at Westshore.

I wish to speak to this submission at the Coastal Strategy meeting on 2<sup>nd</sup> May 2016.

L W Dallimore



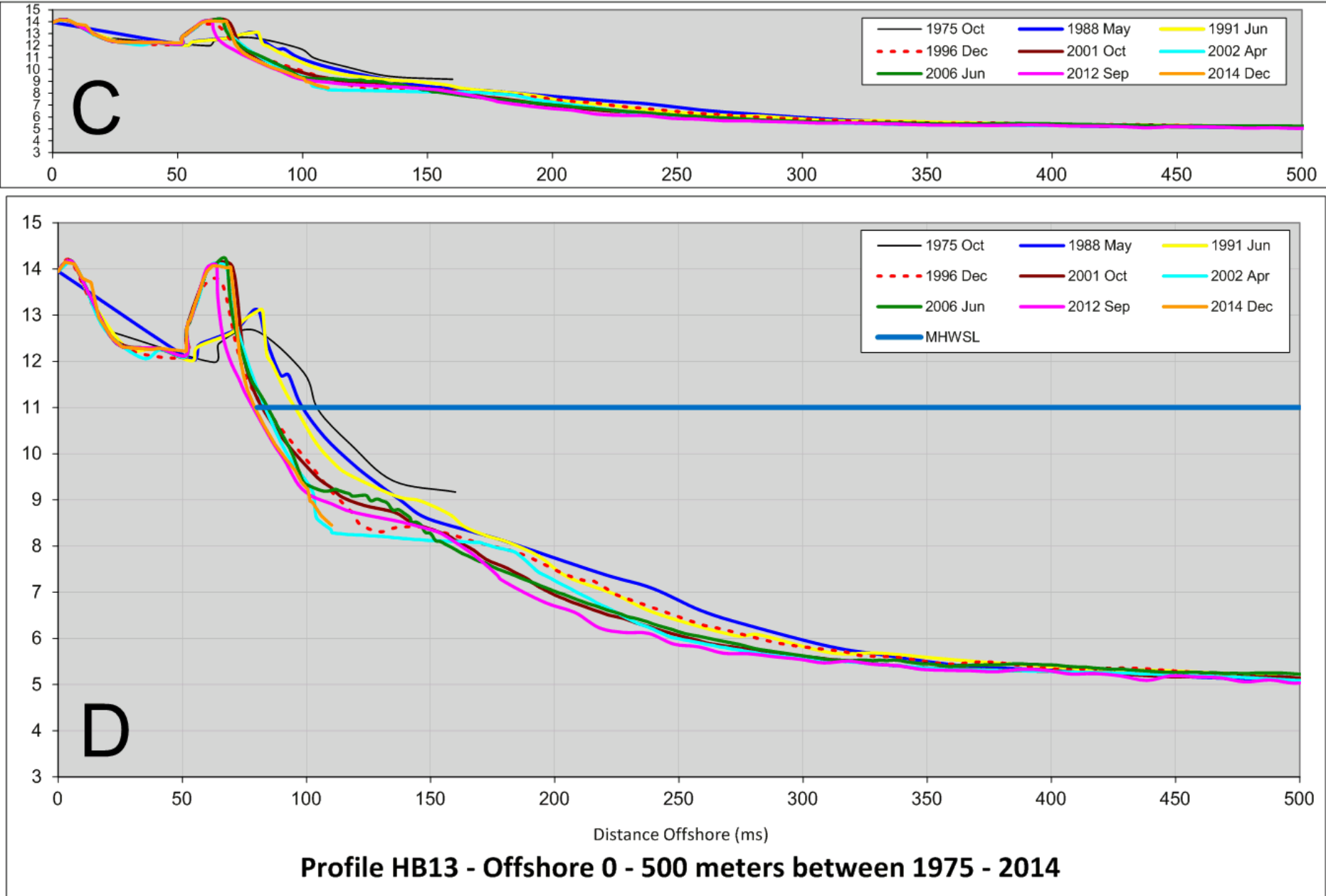


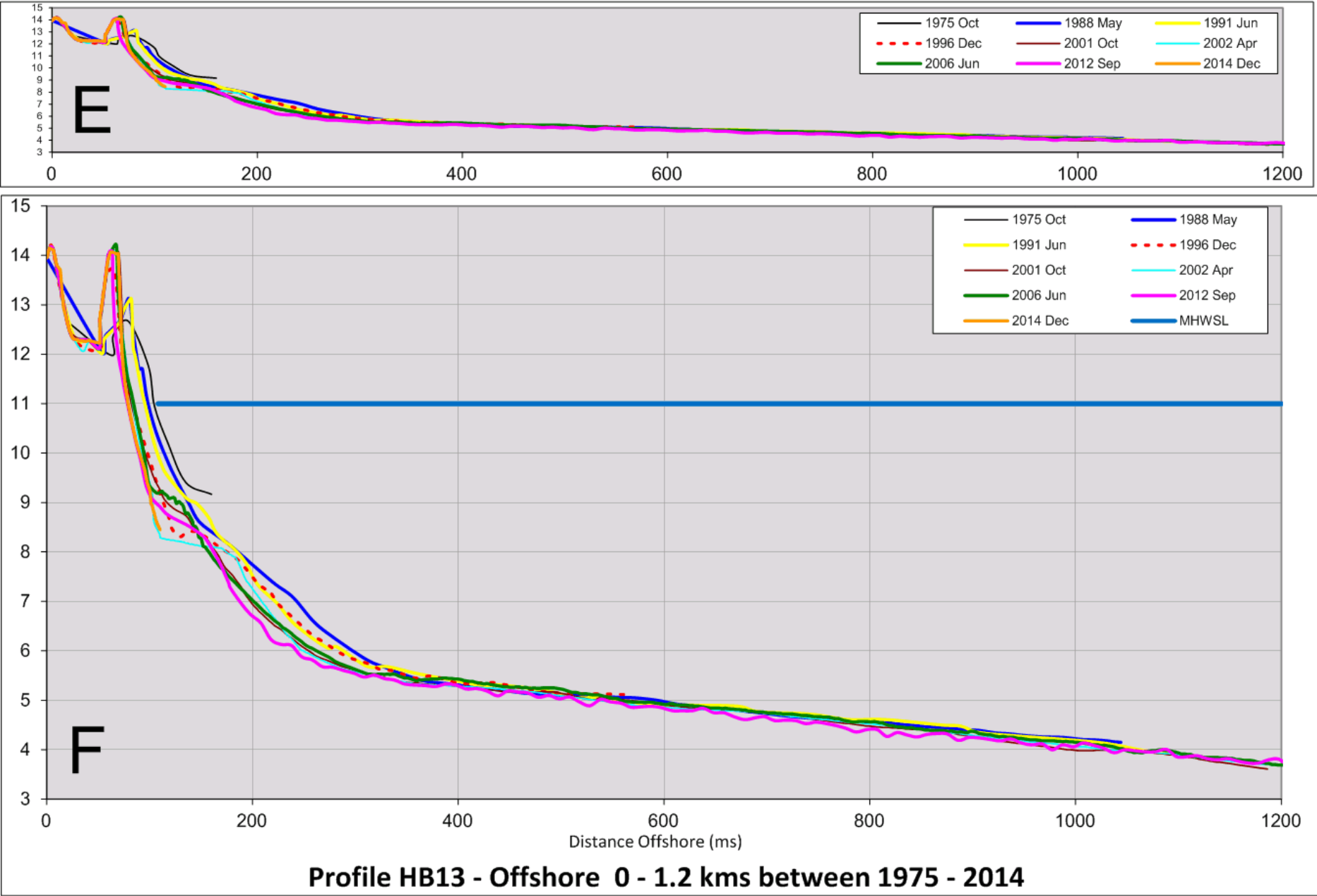


Profile HB13 - Offshore 0 - 160m between 1975 to 1979

Attachment 5

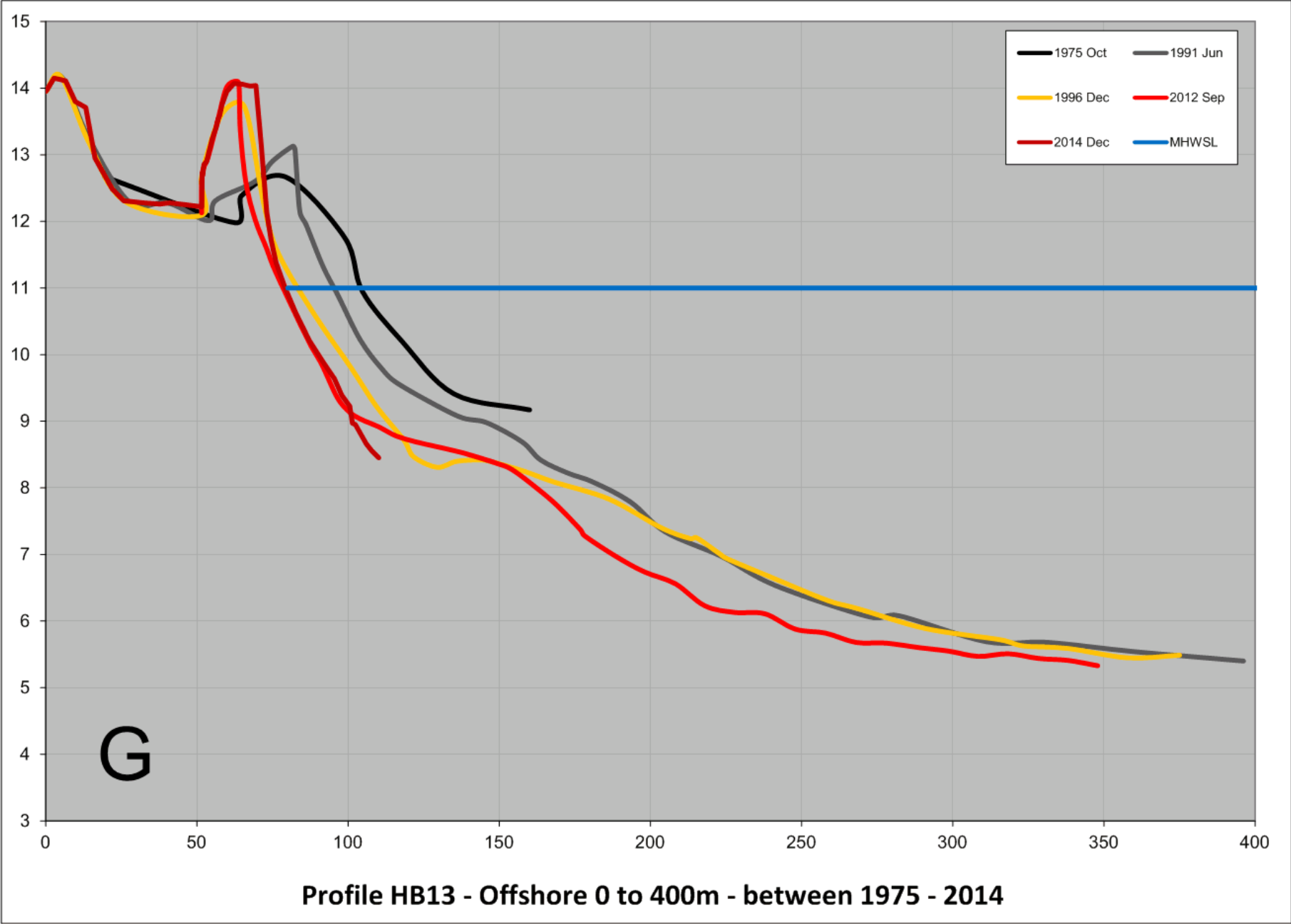
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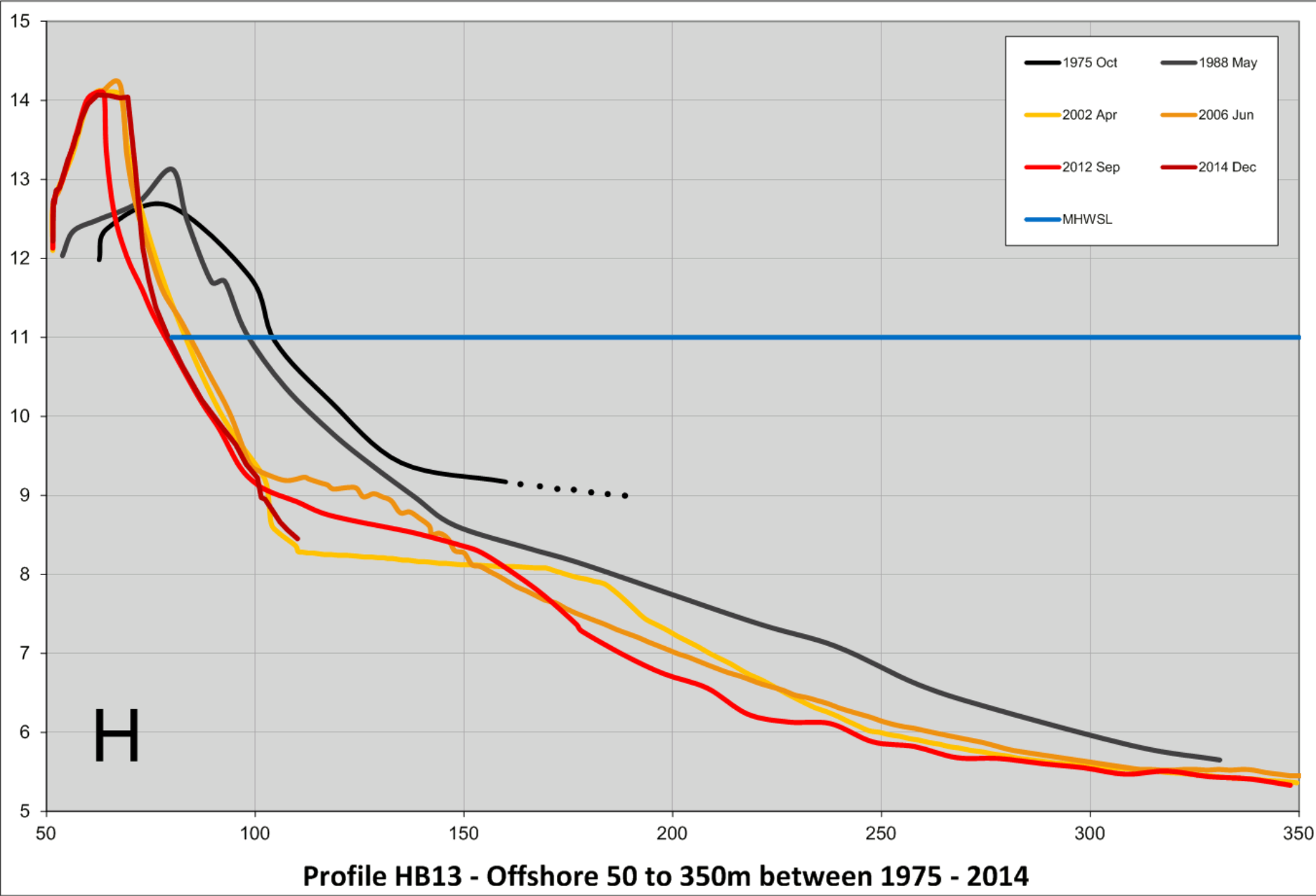




Attachment 5

Item 5

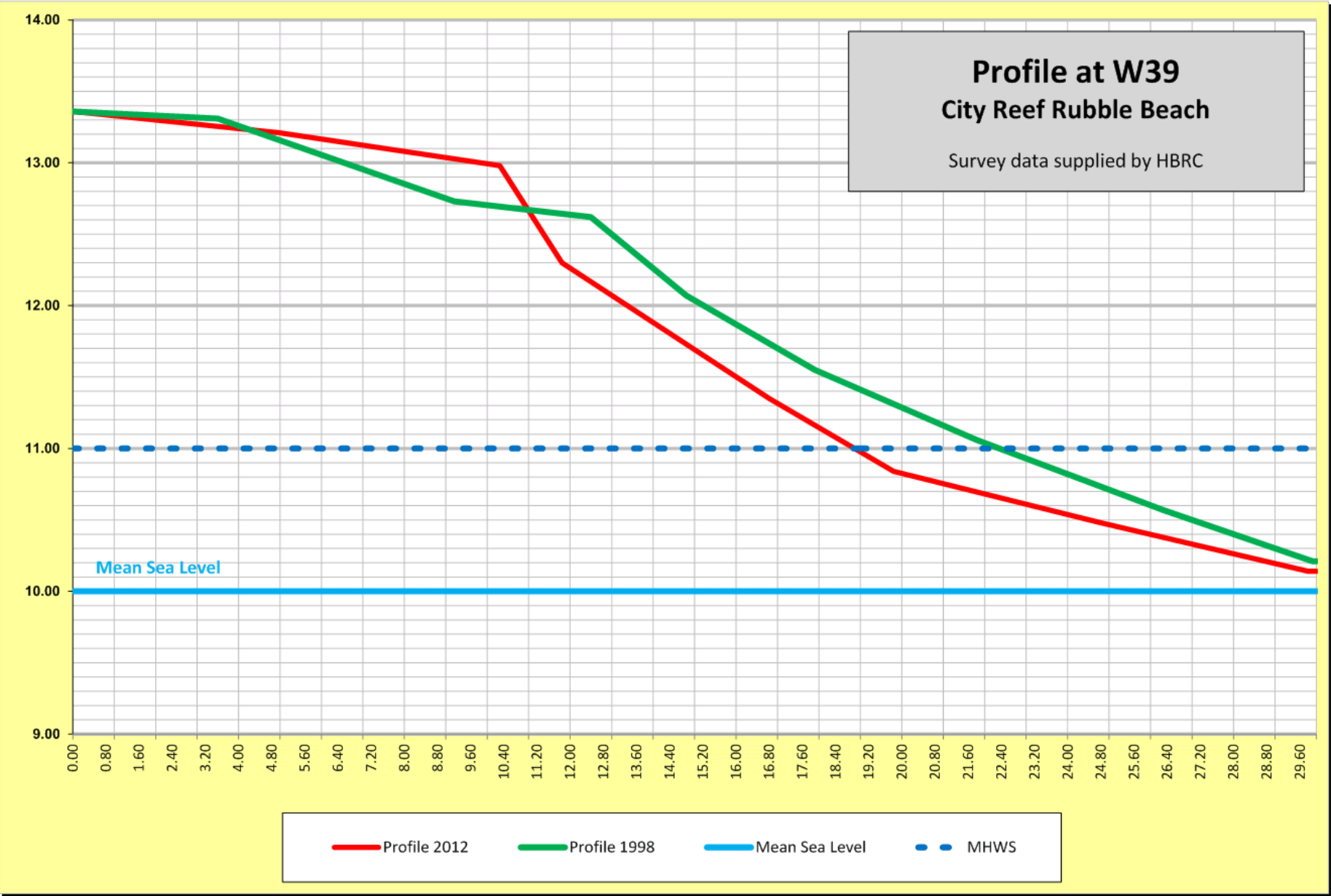




- Soft gravel barrier ridge erosion mitigation. e.g. re-nourishment
  - Hard gravel barrier ridge erosion mitigation
  - Mitigation of sea inundation and tsunami hazards
16. The strategy will be as clear as possible about the collective aims of the Hawke's Bay community for this coast and provide a framework within which the feasibility of options and opportunities can be tested and prioritised. This will enable management and mitigation effort to be commenced in a coordinated and collaborative way resulting in the Hawke's Bay community being prepared for the potential impacts of the coastal hazards.
  17. A similar approach could be developed for the region's northern and southern coasts, however the highest risks are associated with the coast between Clifton and Tangoio. The process for developing the strategy for the Clifton to Tangoio coast should be adaptable for these other areas. Staff will quantify the resource requirements for this work so that provision into the draft LTP 2015/25 can be considered.

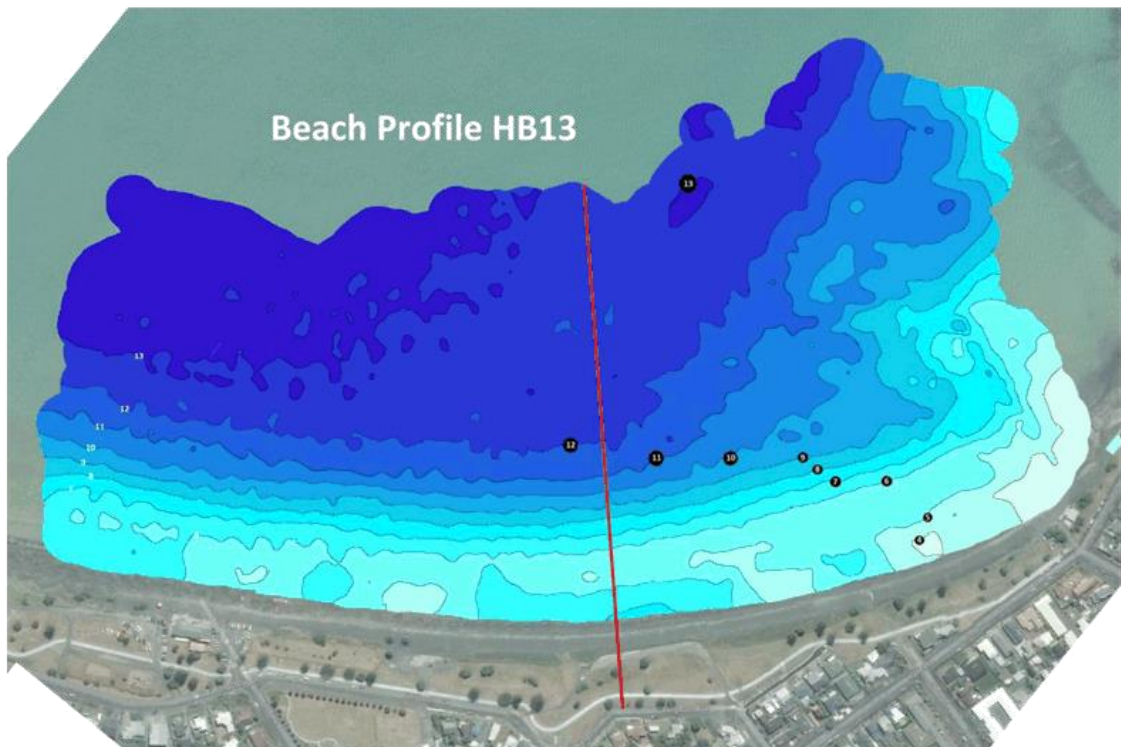
#### Current Coastal Issues

18. **Westshore** – Renourishment at Westshore has held the coast seaward of where it was in 1986 along most of the Westshore foreshore. Renourishment material has for the last 20 years or so been sourced from the Napier foreshore. The resource consent for this extraction expires in 2017. The Komar report identifies that this is unsustainable and therefore another source of material or an alternative approach to mitigating the impacts of erosion must be identified.
19. **Napier foreshore** – The integrity of the Napier gravel barrier ridge is imperative for the security of Napier CBD and lower lying suburbs. Identification of threats to its integrity in the long term and steps that can be taken to cost effectively mitigate or minimise those threats now are important to Napier's long term future.
20. **Awatoto** – Winstone aggregates holds a resource consent to extract 30,000m<sup>3</sup> of sediment from the Awatoto foreshore annually. This consent expires in 2017. The Komar report highlights that ongoing extraction from this site is unsustainable. HBRC are discussing future options with the company. The beach crest at Awatoto is lower than the beach crest protecting Napier CBD. There is therefore a higher risk of overtopping of this gravel barrier ridge with the potential to impact the Awatoto industrial area and the Napier sewerage treatment plant.
21. **East Clive** – The East Clive and Clive communities are protected from sea inundation from a sea exclusion bank which joins with the stopbanks on the Ngaruroro and Tukituki Rivers. In 1974 a heavy sea event flooded land in this area after breaching the original sea exclusion bank. The current sea exclusion bank will over time become more susceptible to breaching if the barrier beach is weakened. Two groyne structures were constructed as part of this project to help maintain the integrity of the gravel barrier ridge. These groynes require ongoing maintenance and their long term future needs to be considered in the light of sea level rise. The Hastings sewerage treatment plant is situated immediately on the landward side of this sea exclusion bank. Outfall structures in the vicinity of the gravel barrier ridge are also at risk. Inundation of this area could impact significantly on the operation of the Hastings sewerage treatment Plant.
22. **River mouths** – Tūtaekuri, Ngaruroro and Tukituki are major rivers that discharge into Hawke Bay. In addition, the Maraetotara River, Ahuriri Estuary, Esk River and Te Ngarue and Pakuratahi Streams discharge into Hawke Bay. Climate change is predicted to result in increased peak flood flows in the region's rivers. Sea level rise will also impact on these waterways. A possible impact is a reduction in gravel getting to the coast. Additional flood protection is an option to reduce the possibility of flooding from these.

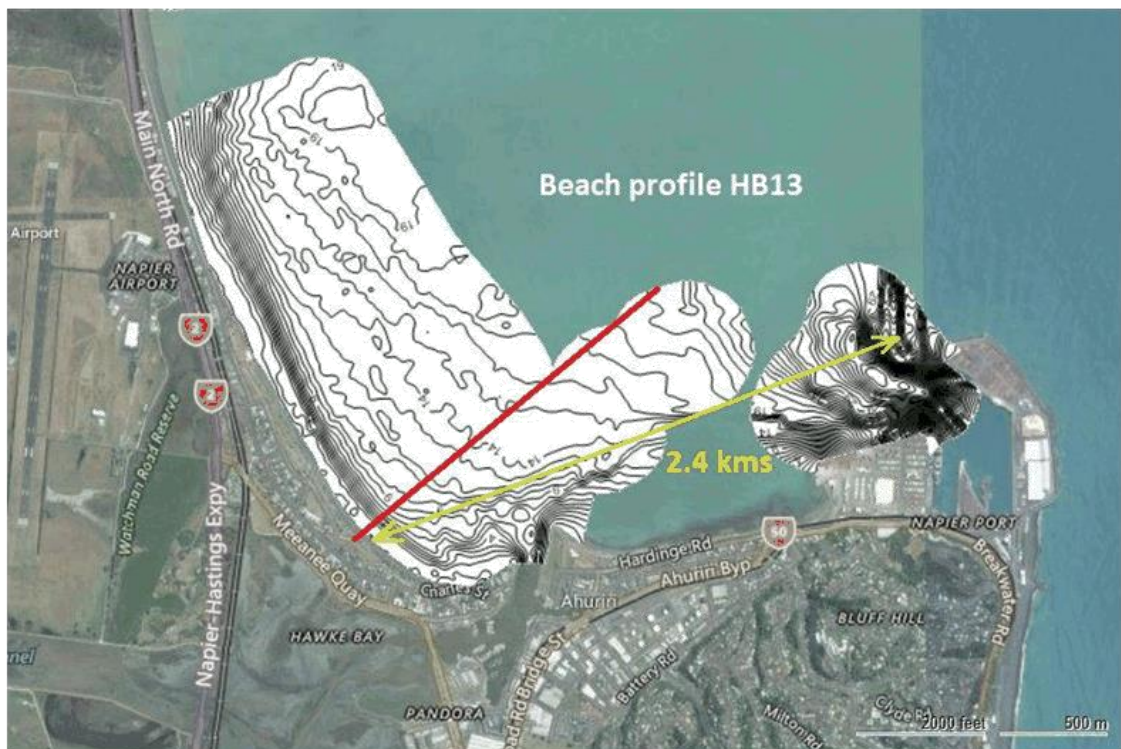




## Westshore Beach – HBRC Surveyed Beach Profiles



Sonar Logs taken by L W Dallimore – March 2015



Sonar Logs taken for/by the Port of Napier – August 2015



[Attachment to Submission on Westshore Beach Erosion](#)

Mayor and Councillors  
Napier City Council  
Napier

9 April 2014

### Coastal Strategy Committee - Pivotal Information in the Komar Report 2014.

HBRC Coastal Strategy is based on the Komar Report 2014 which is an update of the Komar Report 2005 with new estimates for rising sea levels. Both reports have overlooked crucial impediments to the natural northerly sediment drift.

HBRC, NCC, and Port of Napier engineers are unable to explain why Mr Komar has disregarded obvious man-made impediments to the movement of beach replenishment. These structures have adversely affected the current solution for Westshore Beach.

Also, Prof Paul Komar accepted Dr Jeremy Gibbs theory that erosion commenced around 1962. The NCC recognised the problem in 1985 and commenced beach nourishment in 1987. These dates are important for establishing the cause of erosion because the timing of breakwater extensions and more importantly, deepening of the shipping channel were not coincidental events.

The solution for Westshore erosion will not be resolved while coastal engineers disagree with Mr Komar's theory which is acknowledged at without independent investigation or new data. Mr Komar concluded "the Haumoana and Meeanee Littoral Cells can be considered to be effectively isolated from one another" (see page 18).

Mr Komar has a unique theory on the coastal movement of sand and gravel from Marine Parade to beaches between Hardinge Road and Tangoio.

The Bluff Hill headland in Napier forms the northern boundary of the Haumoana Littoral Cell, separating it from the Bay View Cell (Figure 1-2). There is strong evidence that the beach gravel has not been carried by the waves and currents past this headland, prior to the construction of the Port of Napier's breakwater in the late 19th century, or subsequent to its construction (Komar, 2005, 2010). However, since 1986 gravel and sand has been extracted from Pacific Beach, the Napier shore south of Bluff Hill, carried by truck to Westshore to nourish its recreational beach, this addition now representing the largest input of sediment into the Bay View Cell.

Extract: Komar Report 2014 - The Coast of Hawke's Bay - Page 18.

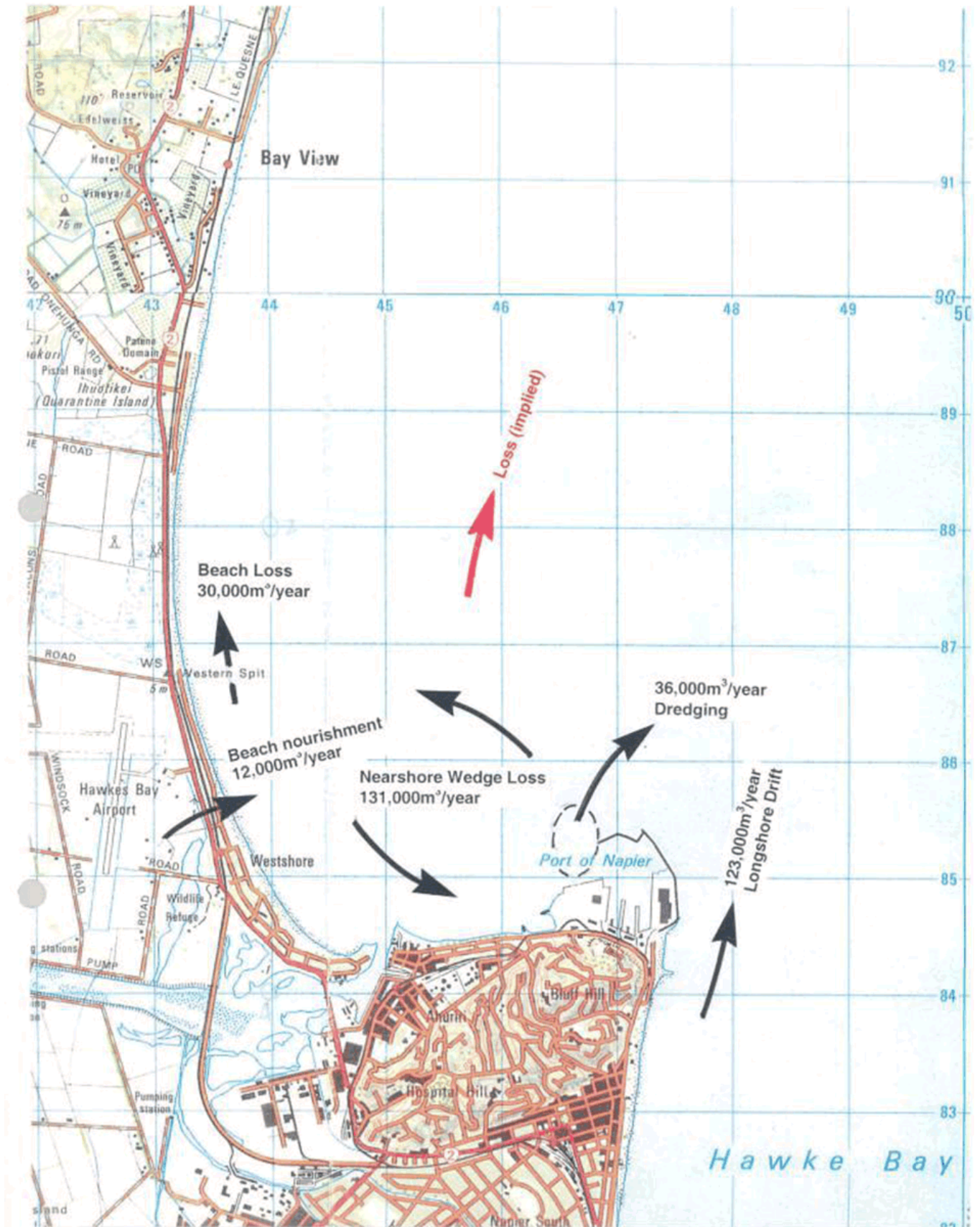
Both Komar Reports do not consider the major man-made impediments to natural flows of sand and gravel which had replenished beaches north of Bluff Hill until 1980/85. The following structures interrupt the natural coastal movement of sediment.

1. Original harbour breakwater.
2. Rock groyne off Pacific Beach.
3. Outer rock apron opp. Phosphate Shed.
4. Extension to the existing breakwater.
5. Outer local limestone rock arm.
6. Shipping channel deepening.

L W Dallimore

Attachment 5

Item 5



Source Figure 7.1 ASR (2000)

**Figure 2.2 Sediment Budget in Westshore Bay  
( for all sediments)**



3120511



Larry Dallimore  
PO Box 12 085  
Ahuriri  
Napier 4144

14 December 2015

Dear Larry,

**RE: FEEDBACK ON COASTAL EROSION HAZARD MAPPING**

Thank you for your letter dated 20 November 2015 provided in response to the stakeholder feedback session held on 27 October 2015 and associated online mapping tool provided for consultation purposes. Your letter was tabled at the Joint Committee meeting on 27 November, 2015.

I respond below to each of the points in the order raised

***Request for report***

The Joint Committee cannot instruct the Port to release the described report or make it available to you. The Port paid for, and owns the report in question, and on that basis it is entirely up to their discretion whether the report is to be made public.

***Beach nourishment at Westshore***

The benefits of the beach nourishment programme are being modelled by Tonkin & Taylor and will show where the coastline would now be in the absence of this programme. However, this strategy is seeking to take a long term view, and consider all potential responses to what we now understand about coastal hazards risks out to 2120. The beach nourishment programme will be reviewed as part of this process.

***Erosion modelling***

The coastal erosion modelling to establish the storm erosion and overtopping used actual historic beach profile data for calibration and verification of the model, which was then used to determine the estimated impact of climate change and sea level rise. Measured rates of shoreline change was used to establish the long term rate of erosion at each beach profile location.

***Impact of the Ruataniwha Water Storage Scheme***

Predictions of the impact of reduced transportation of gravel to the coast as a result of a reduction flows which transport sediment in the Tukituki were thoroughly investigated, peer



reviewed and considered by the Environmental Protection Agency. As a result they have imposed conditions on the resource consent for the RWSS requiring renourishment at the coast. Modelling suggests that 180,000 cubic metres would be captured by the dam annually but the entire tributary system for the Tukituki only delivers a few thousand to the Coast. Most of the gravel, amounting to tens of millions of cubic metres, is actually trapped in the middle and upper reaches on the river banks. I am happy to take you there and show you the magnitude of the problem. We therefore do not accept that the RWSS including any resource consent conditions will have any effect on sediment supply to the coast. As such, no impact of the RWSS has been taken into account in the modelling.

#### *Use of probability lines*

The lines mapped by Tonkin & Taylor are for information purposes only and are technical in nature. How these lines are translated into coastal hazards responses is the job of the next stage of the Strategy. For example, our preliminary thinking is that we may wish to use lower probability lines for new infrastructure that will serve a critical need for our community in the future where a lower risk tolerance is appropriate, and a higher probability set of lines for existing residential land use, where a higher risk tolerance may be acceptable to the community. We note that the level of risk tolerance may also change between coastal communities. We look forward to having these important conversations next year.

Case law and our own legal advice make it clear that it is not within council's discretion to choose which level of risk to provide for community information. To quote recent case law: "But a worst case scenario objectively identified and evidentially based, **must**, by definition, be a reasonable possibility — albeit the worst one." A council's obligation is to place the information on LIMs once in their possession. A council's only discretion lies in how to fairly represent the information.

#### *Whakarire Ave Protection Works*

The current modelling does not factor in the proposed Whakarire Ave erosion protection works as these have yet to be consented. A review of the existing Coastal Erosion Hazards Zone in the Napier District Plan may occur as an outcome of this strategy, at which time this process of re-mapping the CHEZ could occur. Our understanding is that the works do not change the inundation/overtopping risk. We also note that while erosion protection works can provide for protection for a period of time, the hazard remains, but with a lower likelihood.

#### *Coastal Erosion Modelling at Westshore*

The draft report that has been made available to you states that Coastal erosion modelling was done using a probabilistic approach of assessing erosion hazard is a relatively new technique but is consistent with the direction in Envirolink (Ramsay et al., 2012) guide to good practice for defining coastal hazard zones for setback lines. It has currently been applied for the Northland Region (NRC) and for Canterbury (ECAN) and has been peer

reviewed by experts from the University of Auckland (Dr. Paul Kench) and NIWA (Dr. Terry Hume). Details of that approach and what was taken into account in the modelling are set out in section 2 and 3 of the report.

Specifically, in response to your queries raised:

- a. Yes ref section 2.7 of the report
- b. Yes reference section 2.4 and section 3 of the report
- c. Yes reference section 2.4 and section 3 of the report
- d. Yes reference section 2.4 and section 3 of the report

Yours sincerely,



Peter Beaven  
Hawke's Bay Regional Councillor and  
Chair of the Coastal Hazards Committee





L. W Dallimore  
PO Box 12 085  
Ahuriri  
Napier

27 April, 2016

Via email [larryd@xtra.co.nz]

Dear Larry

**Re: Feedback on Coastal Hazard Assessment**

Thank you for your letter dated 14 April 2016 on the Coastal Hazard Assessment.

I look forward to your attendance and presentation to the Joint Committee at our meeting on 2 May 2016. In the meantime, I wanted to provide a response to some of the matters raised in your submission, which may assist in your presentation and any further questions you may wish to ask of the Joint Committee.

We appreciate the effort you have made in preparing your submission, but note that many of the issues you are commenting on do not relate directly to Stage One of this process and the two reports recently completed by Tonkin & Taylor. Specifically, in regards to your point 8 on sand replacement at Westshore, this option will be considered further as part of Stage Three of the strategy when, working with the community, decisions will be made on responses to the identified coastal hazards risks. Additionally, in considering point 9 of your submission, we note that the items you have highlighted have already been answered in previous responses from HBRC. I would however note that the data analysis and commentary may be useful in future stages of the Coastal Hazards Strategy, and these are appreciated.

Thank you again for your ongoing involvement and feedback. I look forward to seeing you on 2 May and to discussing your submission further with you then.

Yours sincerely,

Peter Beaven  
Hawke's Bay Regional Councillor and  
Chair of the Coastal Hazards Committee





**Subject: ADOPTION OF CELL EXTENT FOR STAGE TWO AND STAGE THREE**

**Reason for Report**

1. This report seeks a resolution from the Joint Committee to adopt cell extents for Stage Three of the Strategy.

**Discussion**

2. Joint Committee members will recall that TAG were instructed to report back on recommended cell extents for cell planning purposes in Stage Three of the Strategy.
3. In developing a response, it became clear that the Joint Committee should make an early determination on this issue, given its implications for the design of the decision making process (and funding model) being developed in Stage Two.
4. To that end, TAG sought advice from Stephen Daysh from EMS, as the developer of the Stage Two decision making process, on options for dividing the strategy area into logical cells, and a recommendation on a preferred number and location of cells.
5. His recommendations have been workshopped with TAG, and are provided in the attached letter dated 26 April, 2016.
6. Mr Daysh will be present at the meeting to talk to his recommendations and answer any questions from Committee members.

**Recommendation:**

1. That the Clifton to Tangoio Coastal Hazards Strategy Joint Committee adopt the recommended Option V (North / South) as detailed in the letter from Mr Stephen Daysh dated 26 April 2016.

**Simon Bendall**  
**PROJECT MANAGER**

**Attachment/s**

- 1 Letter from Stephen Daysh, Hawke's Bay Coastal Strategy Stage 2 Assessment Cell Consideration and Evaluation





## Environmental Management Services

26 April 2016

SGD366

Hawkes Bay Regional Council  
Private Bag 6006  
Napier

Attention: Mike Adye

### **HAWKE'S BAY COASTAL STRATEGY – STAGE 2 ASSESSMENT CELL CONSIDERATION AND EVALUATION**

#### **1. Introduction**

The Hawke's Bay Coastal Strategy<sup>1</sup> is to be based on defined 'cells' for overall assessment purposes. The Stage 2 decision making framework currently being developed will be utilised in Stage 3 to develop coastal hazard plans for responses to identified risks in the cells.

This letter has been prepared at the request of the Technical Advisory Group (TAG). It has been prepared so a preliminary decision can be made on the make-up (number and location) of the 'Assessment Cells' to be utilised in the Stage 3 Decision Making process which is planned of later in 2016. A decision on the number and location of Assessment Cells will ensure the balance of the Stage 2 Decision Making Process Report being prepared by EMS is appropriately focused.

The purpose of separating the coastal area into Assessment Cells is to:

- Form key geographic areas where different approaches and possible solutions are required; and,
- Aid development of a coherent decision making framework which is relevant to communities of interest, rather than being assessed as one group; while
- Seeking to achieve a consistent approach to responding to coastal hazards along the coast and across local authority jurisdictions; and
- Recognising that the nature of coastal processes is such that a response in one cell may cause impacts on another part of the coast.

Assessing coastal hazards within logical Assessment Cells of a manageable size will allow for better management of how the coastal strategy is ultimately implemented and maintained.

<sup>1</sup> Clifton To Tangoio Coastal Hazards Strategy Joint Committee Meeting Agenda 27 Nov 2015

## 2. Hazard Inputs to Assessment Cell Options

Tonkin and Taylor, in their draft January 2016 Hawke Bay Coastal Strategy Risk Assessment Report<sup>2</sup> examined “*hazard x vulnerability*” where vulnerability represents damages and losses; and presents information in terms of losses and likelihood for:

- **Inundation** (overtopping and sea level rise) with 10%, 1% and 0.5% Annual Exceedance Probability (AEP) scenarios for the present day, 2065 and 2120;
- **Erosion** (storm cut, trends, and effects of sea level rise) for 66%, 33%, 5% and 1% likelihoods for the present day, 2065 and 2120; and
- **Tsunami** (modelled by HBRC) for 3m, 5m and 10m which represents 0.5%, 0.13% and 0.025% AEP for the present day coinciding with Mean High Water Springs (MHWS).

The only practical response to a significant tsunami event, as we understand it, is effective civil defence planning and response (i.e. you cannot ‘defend’ against a significant tsunami).

It is our understanding that in the context of the Hawke’s Bay Coastal Strategy, the tsunami risk information identified by Tonkin and Taylor will be used for planning purposes and to inform the ongoing efforts by Councils, such as escape routes, dissemination of information, and other civil defence activities. For this reason, we have focused only on **Erosion and Inundation hazards** for the definition and evaluation of the Assessment Cell Options discussed in this letter.

## 3. Assessment Cell Considerations

The coastal area from Tangoio to Clifton was divided into 16 units by Tonkin and Taylor to enable a comparison of risk and vulnerability (refer Figure 1 overleaf). The mapping units (A to P) are based on a combination of ward boundaries, land area units and topography to enable a comparative assessment of potential risk by location.

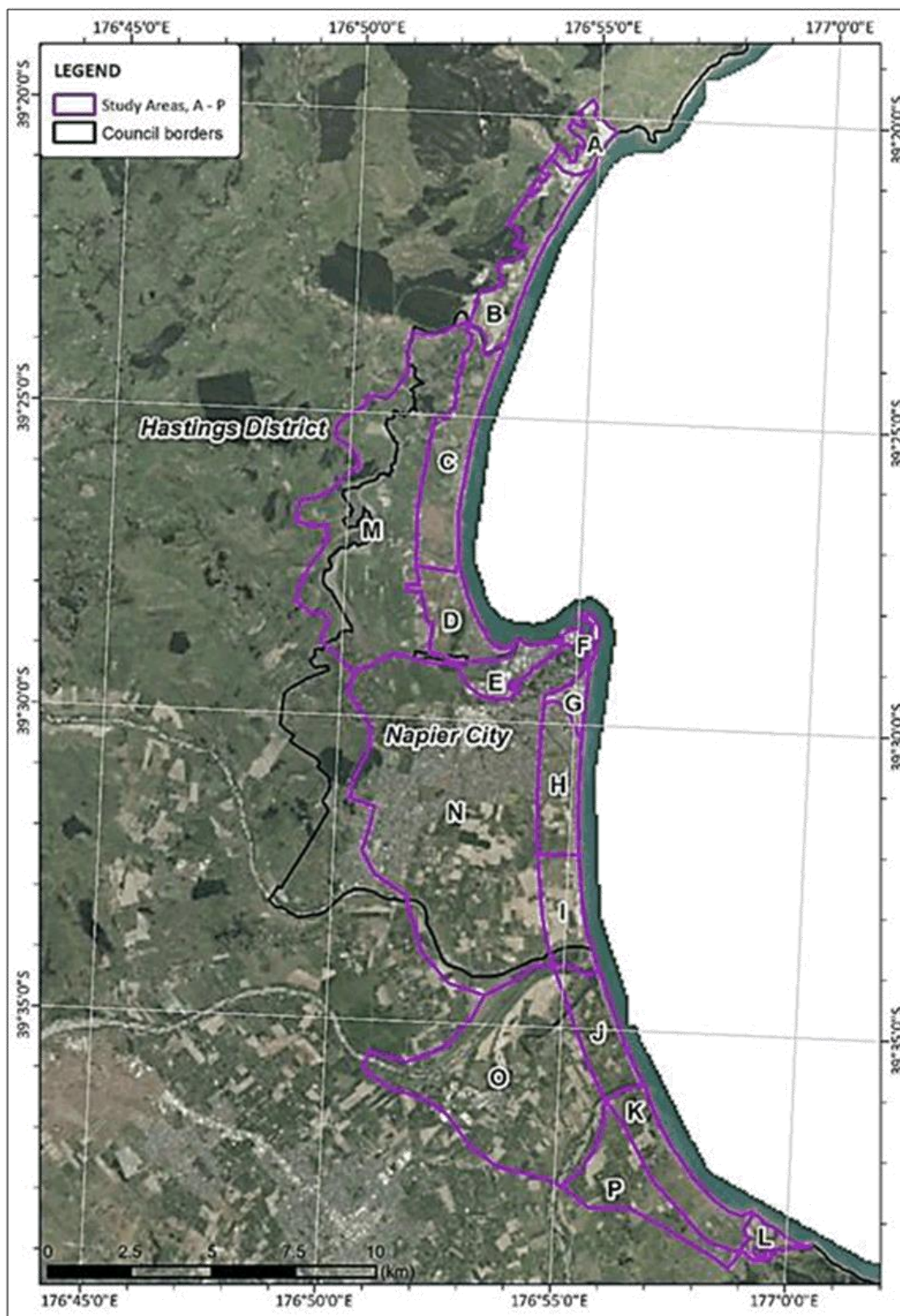
The main elements at risk considered by Tonkin and Taylor in their assessment identify the physical, economic, social or environmental units or systems which are at risk of being affected by the particular hazards. The vulnerability assessment provided quantified information on attributes such as:

- Human – number of people affected
- Economic – value of assets within area
- Social/cultural – inventory of items within area
- Environmental/ecological – area affected.

Considering present day conditions, the Tonkin and Taylor report states that exposure to coastal inundation is generally low across most units except the Ahuriri Lagoon area. Exposure increases through 2065, to 2120 when moderate to high exposure is predicted, particularly for conservation land (high exposure). Exposure to coastal erosion is generally low as it affects only the coastal margin although sea level rise will progressively increase this exposure to all elements, particularly at the northern and southern ends of the study area. The population within the entire mapping area is 71,574, or more than 55% of the total population of Hastings and Napier.

<sup>2</sup> Hawke Bay Coastal Strategy, Coastal Risk Assessment. Tonkin & Taylor Ltd., January 2016 20514.006.v1

**Figure 1.** Map showing Tonkin and Taylor units (A to P) as mapped across the coastal hazard study area (purple line) and the district boundaries (black line).





#### 4. Assessment Cell Options

For a preliminary high level analysis we have developed six different Assessment Cells options, generated using varying configurations of risk assessment units as mapped by Tonkin and Taylor. For clarity, the term 'units' has been used to denote the 16 coastal units defined by Tonkin and Taylor in their risk assessment work, where 'cells' has been used to describe the proposed areas for Stage 3 Assessment and Decision Making purposes.

- I. **All units (16 cells):** This considers all 16 of the units as individual Assessment Cells. The cells are of varying sizes, population densities, and have different natural landforms and areas of cultural significance and are affected to varying degrees by coastal hazards.
- II. **Coastal Hazard Areas (5 cells):** In this cell configuration, the 16 coastal units were generally bracketed together into four cells on the basis of similarity of coastal processes, for example areas that are generally accreting and those that are generally eroding. The landward units are in one Assessment Cell.
- III. **River Boundaries (4 cells):** This option breaks the coastal units at the major river mouths (Esk and Ngaruroro/Tutaekuri) and at the Port of Napier. The inland units behind the coastal units are grouped on the same basis.
- IV. **North / Central / South (3 cells):** This 3 cell option divides the southern portion of the study area (south of the Port of Napier) into two cells to recognise the different communities of interest in these two areas (i.e. the Clifton, Te Awanga, Haumoana, Clive areas of Hastings District are in South cell and the Awatoto, Napier South and CBD areas are in the Central cell). The northern part of the study area north of and including the Port of Napier is the North cell in this Option.
- V. **North / South (2 cells):** The study area units are divided into two cells using the Port / Bluff Hill as a significant geographic and coastal feature, and therefore the resulting two cells are defined as Port and North and south of the Port.
- VI. **Combined (1 cell):** This option considers the study area as one Assessment Cell, whereby all the T&T units are comprised in one cell.

The above options are presented schematically in **Appendix 1**.

Table 1 below lists a range of advantages and disadvantages of the 6 potential Assessment Cell configurations as a basis for the Stage 3 Decision Making process.



**Table 1.** Range of Advantages and Disadvantages relevant to the Assessment Cell options

ASSESSMENT CELL OPTIONS	PROS	CONS
I. All Units (16 Cells)	<ul style="list-style-type: none"> <li>Consistent with areas used in T&amp;T assessment</li> <li>Would enable a very fine grain assessment of issues in each specific unit</li> <li>High resolution means greater say for each community of interest in what happens for their particular part of the coast</li> </ul>	<ul style="list-style-type: none"> <li>16 Decision making processes would be inefficient, time-consuming and very costly</li> <li>Administratively highly complex and highly resource intensive</li> <li>High risk of inconsistent decision making</li> <li>Logical communities of interest across different units would not be able to be able to be easily communicated and considered</li> <li>Difficulties establishing high numbers of representative groups (finding the right people)</li> <li>Process will take a long time</li> <li>High risk of failing to recognise coastal processes and the impacts of decisions made on one part of the coast affecting another part</li> </ul>
II. Coastal Hazards Areas (5 Cells)	<ul style="list-style-type: none"> <li>Consistent with areas used in T&amp;T assessment (clustered)</li> <li>Some alignment with mana whenua areas of interest?</li> <li>Smaller coastal cells</li> <li>High resolution means greater say for each community of interest in what happens for their particular part of the coast</li> </ul>	<ul style="list-style-type: none"> <li>Administratively complex and resource intensive to have 5 separate Assessment Groups</li> <li>Increased risk of inconsistent decision making</li> <li>Some difficulties in establishing high numbers of representative groups (finding the right people)</li> <li>Extended timeframe likely</li> <li>Increased risk of failing to recognise coastal processes and the impacts of decisions made on one part of the coast affecting another part</li> </ul>
III. River Boundaries (4 Cells)	<ul style="list-style-type: none"> <li>Potentially best alignment with mana whenua areas of interest<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>More administratively complex and costly requirements than options with lesser numbers of Assessment Cells (i.e. Options IV, V and VI)</li> <li>Some risk of inconsistent decision making</li> <li>Some risk of failing to recognise coastal processes and the impacts of decisions made on one part of the coast affecting another part</li> </ul>

<sup>3</sup> This assumption needs to be checked with mana whenua representatives on the Joint Committee

IV. North-Central-South (3 Cells)	<ul style="list-style-type: none"> <li>• Lower administration burden than higher number cell options (although will still require three assessment groups and considerable time to coordinate three groups)</li> <li>• Some alignment with district boundaries</li> <li>• Some alignment with mana whenua areas of interest?</li> </ul>	<ul style="list-style-type: none"> <li>• May not take full account of interrelated coastal processes in decision making (e.g. potential cause and effect linkages associated with the South and Central cells)</li> <li>• Not having all 3 Councils involved in each Assessment Cell risks inconsistent and un-coordinated decision making approaches</li> </ul>
V. North / South (2 cells)	<ul style="list-style-type: none"> <li>• Takes account of interrelated coastal processes in decision making (e.g. potential cause and effect linkages associated with the units south of the Port of Napier, and from the Port north)</li> <li>• Some alignment with mana whenua areas of interest?</li> <li>• Unlike Option IV (3 cells) this option involves both NCC and HDC in all assessment and decision making which will aid in consistent decision making and implementation aspects</li> <li>• Two cells strikes a good balance between administrative and process cost efficiency of the assessment process and the ability to involve a range of relevant communities of interest in the two Assessment Groups</li> </ul>	<ul style="list-style-type: none"> <li>• Similar disadvantages to Option VI (1 cell) below, but to a lesser degree</li> </ul>
VI. Combined (1 cell)	<ul style="list-style-type: none"> <li>• Administratively more simple – one group, one process</li> <li>• Crosses jurisdictional boundaries aiding in consistent decision making</li> <li>• Takes account of all interrelated coastal processes</li> </ul>	<ul style="list-style-type: none"> <li>• Very large area means a large representative group to cover all interests – difficult to manage as part of a multi-criteria assessment process, where between 10 to 15 participants is an ideal number. This could create concern about under-representation of some groups.</li> <li>• Would be difficult to facilitate a focus on particular communities of interest and their specific issues</li> </ul>

## 5. Conclusion and Recommendations

The Evaluation Table in the section above outlines the advantages and disadvantages of six Assessment Cell options.

Based on the analysis of the six identified options, it is our view that the following two options comprise a feasible and logical shortlist for consideration by the Joint Committee:

**Option IV (North / Central / South)** with three Assessment Cells divided north, centrally and south; and

**Option V (North / South)** with two Assessment Cells centrally divided north and south of the Port / Bluff Hill.

On the balance of advantages and disadvantages between these two short-listed options our recommendation to the Joint Committee is for **Option V (North / South)**<sup>4</sup> to be utilised in the Stage 3 Multi-criteria assessment process for the following three key reasons:

### 1. Coastal Process Groupings and Linkages

**Appendix 3** groups the units used to create the erosion and inundation risk classification tables in the Draft Tonkin & Taylor Coastal Risk Assessment for Option IV and V.

In our opinion, Option V best groups areas of potential interrelated coastal processes for consideration in the detailed Stage 3 assessment and the associated decision making process on responses (e.g. the potential cause and effect linkages associated with the units south of the Port of Napier, and those associated with the units from the Port north).

**Appendix 3** also illustrates that the Central Assessment Cell in Option IV comprises relatively low risk units. Having a separate cell given these factors does not appear to be justified on this criteria;

### 2. Involvement of all 3 Councils

Unlike Option IV (3 cells), Option V involves both NCC and HDC in all assessments and the decision making process on responses (as these two Councils cover parts of both the North and South cells). It is considered that involvement of all Councils in all the assessment processes will aid in co-ordinated and consistent decision making and implementation; and

### 3. Effective Management of the Multi-criteria Cell Assessment process

Two Assessment Cells strikes a good balance between the administrative and process cost efficiency of the assessment process and the ability to involve the necessary range of relevant interests in the two Cell Assessment Working Parties. Successful multi-criteria assessment processes undertaken previously by EMS have included between 10 and 15 participants and this range is considered ideal. In our experience, if more than around 15 participants are included the process can become unwieldy.

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<sup>4</sup> Options shown at a larger scale in **Appendix 2**

As requested at the 19 April 2016 TAG meeting, included as **Appendix 4** is an initial list of the parties who might be invited to join the two Assessment Cell Working Parties along with the preliminary numbers who would have voting rights.

While the initial lists we have compiled exceed the nominal/ideal 15 participant maxima, the numbers do include 2 representatives from a range of communities who are considered most affected, and the overall numbers could be reduced, if only one representative was included.

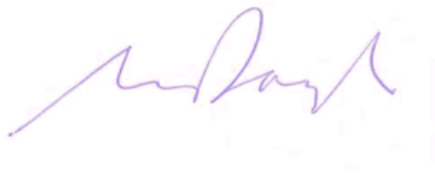
Ultimately the participation decision is for the Joint Committee to determine, obviously based on an overriding factor of providing for a fair representation of the range of interests.

If the Joint Committee considered it was important to provide for 2 representatives from the key affected communities (which in our view should be considered) then while not ideal from a pure meetings logistics and participation perspective, it is considered that the Working Party would still be able to function effectively, particularly if an Independent Chair and Kaumatua guide the meeting and the Facilitators are there to ensure the right information is available and discussed for the set agenda for each meeting.

We would appreciate feedback from the Joint Committee on our overall recommendation in this letter (i.e. for the adoption of Option V) and also on the list of potential parties for the Assessment Cell Working Parties in Appendix 4. Once this feedback is received we will incorporate this in the overall Stage 2 Decision Making Framework Report that EMS is due to present to the Joint Committee for consideration in August 2016.

Yours faithfully

Environmental Management Services Ltd.



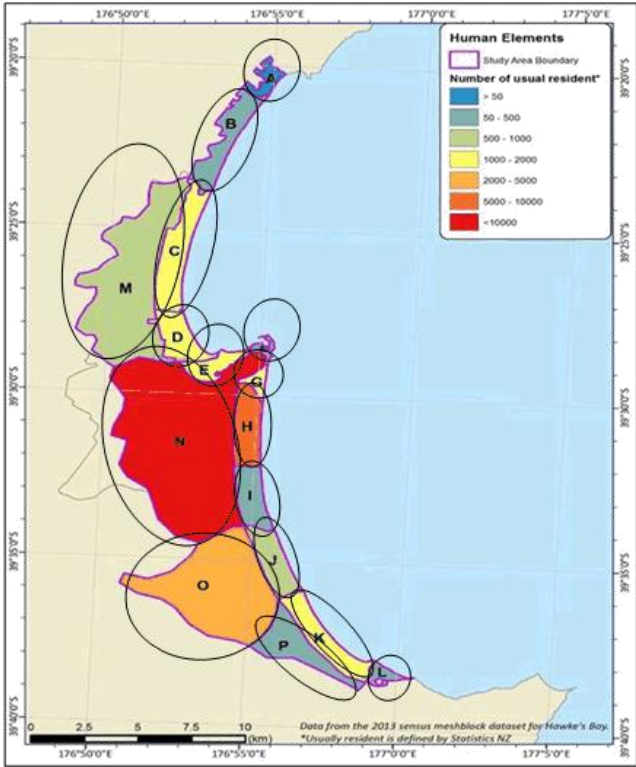
Stephen Daysh  
**DIRECTOR**

## APPENDIX 1

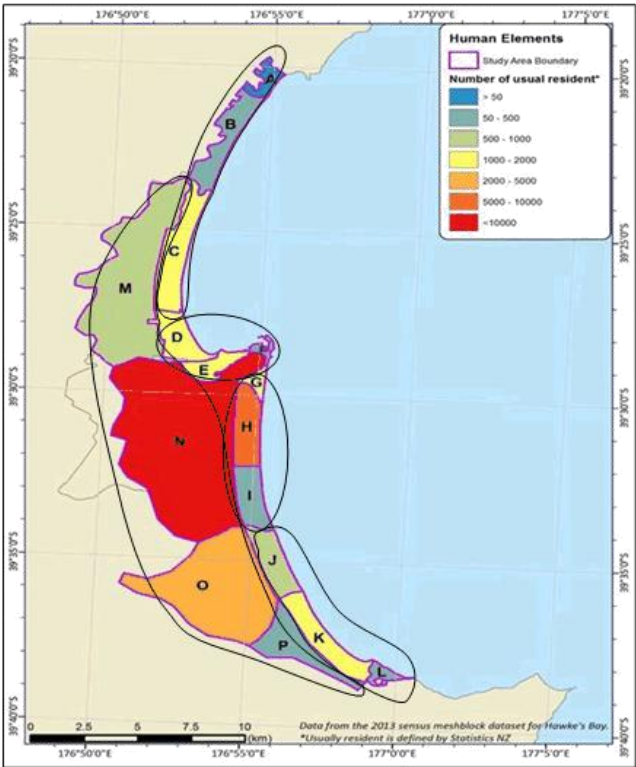
### ALL ASSESSMENT CELL OPTIONS



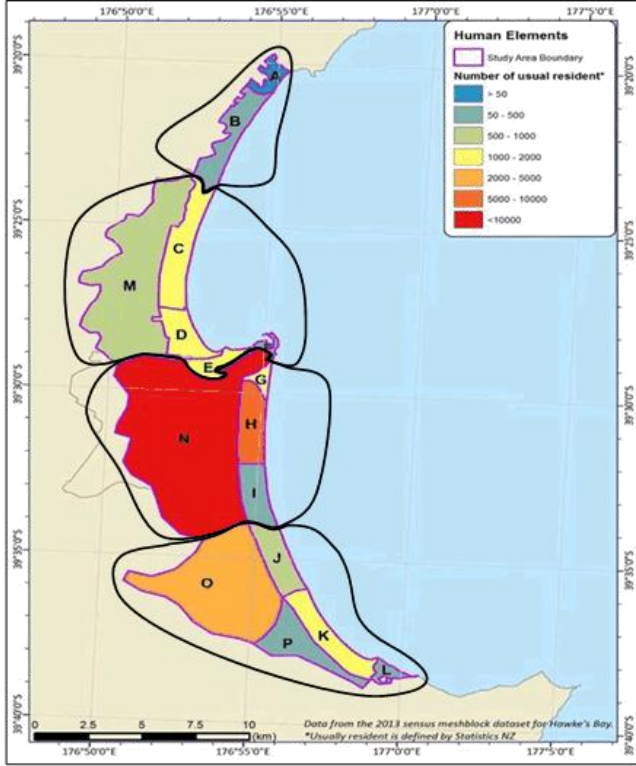




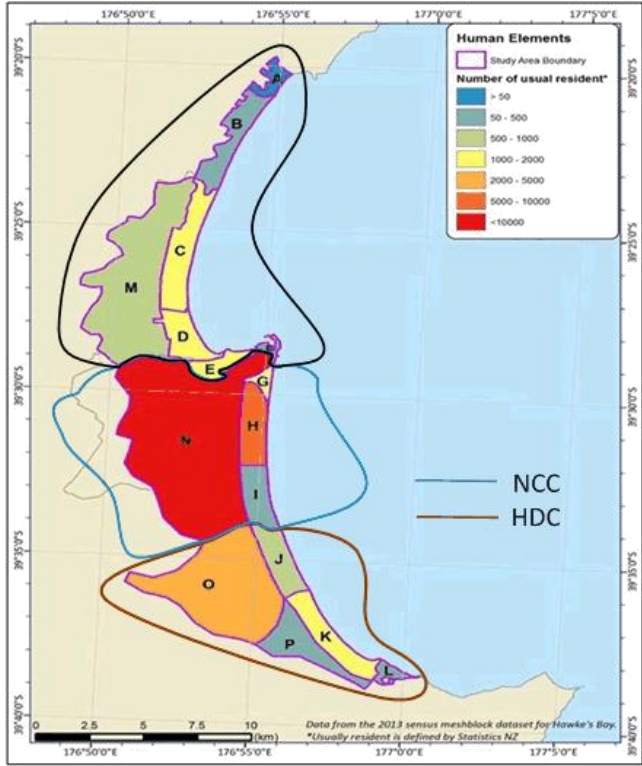
Option I. All T&T units (16 cells)



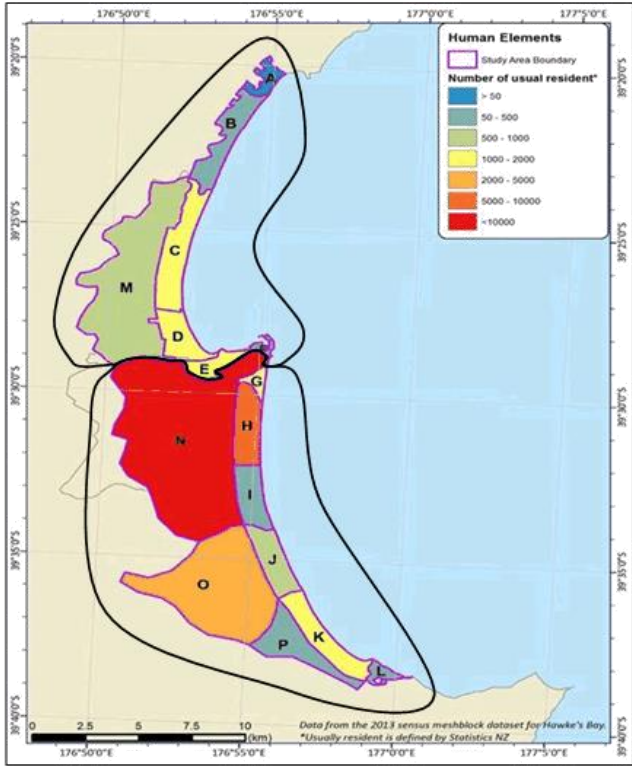
Option II. Coastal Hazard Areas (5 cells)



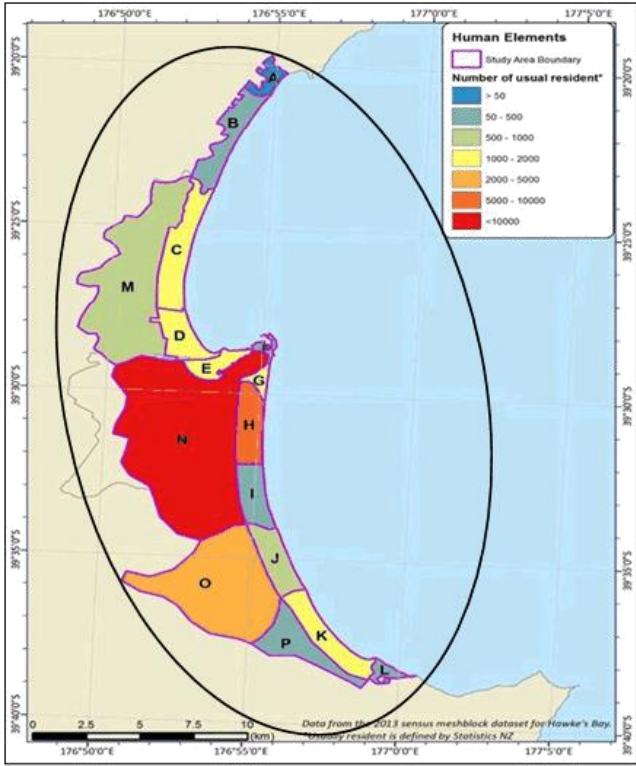
Option III. River Boundaries (4 cells)



Option IV. North-Central-South (3 cells)



Option V. North/South (2 cells)



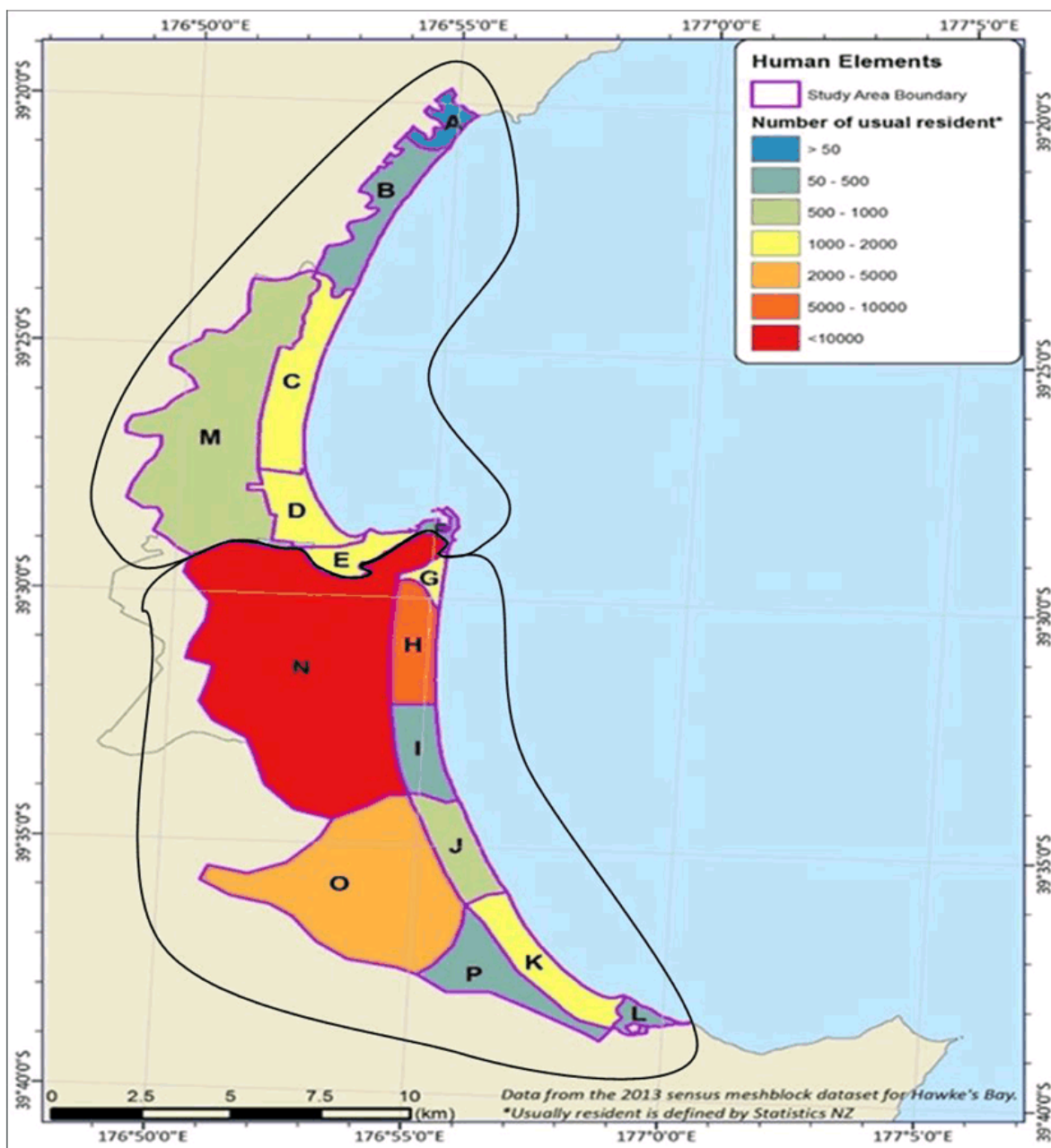
Option VI. Combined (1 cell)



## APPENDIX 2

### LARGER IMAGE OF RECOMMENDED OPTION

(OPTION V. North/South (2 cells))



## APPENDIX 3

TONKIN & TAYLOR UNIT BASED RISK CLASSIFICATIONS FOR INUNDATION AND COASTAL  
EROSION CONFIGURED FOR THE TWO SHORT-LISTED CELL OPTIONS

## OPTION IV. North/Central/South (3 cells)

Assessment Cell Option IV (North-Central-South)													
INUNDATION													
	Mapping unit	1% AEP inundation, Current				1% AEP, 2065				1% AEP, 2120			
		Human	Economic	Social/cultural	Env/ecol	Human	Economic	Social/cultural	Env/ecol	Human	Economic	Social/cultural	Env/ecol
North Cell (7 units)	A	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	B	Very low	Negligible	Moderate	None	Very low	Negligible	Moderate	None	Very low	Very low	Moderate	None
	C	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	D	Very low	Very low	Low	Very high	Very low	Low	Low	Very high	Very low	Low	Low	Very high
	E	Very low	Low	Low	Very high	Very low	Moderate	Low	Very high	Very low	Moderate	Low	Very high
	F	Very low	Low	None	None	Very low	Low	None	None	Very low	Low	None	None
	M	Very low	Negligible	Low	Very high	Very low	Negligible	Low	Very high	Very low	Negligible	Low	Very high
Central Cell (4 units)	G	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	Low	None
	H	Very low	Very low	Low	None	Very low	Very low	Low	None	Very low	Very low	Low	None
	I	Very low	Negligible	Moderate	Moderate	Very low	Very low	Moderate	Moderate	Very low	Low	Moderate	Moderate
	N	Very low	Negligible	None	High	Very low	Negligible	None	High	Very low	Very low	None	High
South Cell (5 units)	J	Very low	Negligible	None	High	Very low	Moderate	None	High	Very low	Very high	None	Very high
	K	Very low	Low	None	Moderate	Very low	Moderate	None	Moderate	Very low	High	Moderate	High
	L	Very low	Negligible	None	None	Very low	Low	Moderate	None	Very low	Low	Moderate	None
	O	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Low	None	None
	P	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None

Assessment Cell Option IV (North-Central-South)													
EROSION													
	Mapping unit	P1%, Current				P1%, 2065				P1%, 2120			
		Human	Economic	Social/cultural	Env/ecol	Human	Economic	Social/cultural	Env/ecol	Human	Economic	Social/cultural	Env/ecol
North Cell (7 units)	A	Very low	Very low	None	None	Very low	Very low	None	None	Very low	Very low	None	None
	B	Very low	Low	None	None	Very low	Moderate	None	None	Very low	High	None	None
	C	Very low	Very low	None	None	Very low	Low	None	None	Very low	Moderate	None	None
	D	Very low	Very low	Low	None	Very low	High	Low	None	Very low	Very high	Moderate	None
	E	Very low	Very low	None	None	Very low	Moderate	None	None	Very low	Moderate	Low	None
	F												
	M	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
Central Cell (4 units)	G	Very low	Low	None	None	Very low	Low	None	None	Very low	Moderate	Low	None
	H	Very low	Very low	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	I	Very low	Very low	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	N	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
South Cell (5 units)	J	Very low	Negligible	None	None	Very low	Low	None	None	Very low	Very high	None	None
	K	Very low	Low	None	None	Very low	Moderate	None	None	Very low	High	None	None
	L	Very low	Very low	None	None	Very low	Low	Moderate	None	Very low	Low	Moderate	None
	O	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	P	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None



OPTION V. North/South (2 cells)

Assessment Cell Option V (North/South)													
INUNDATION													
Mapping unit	1% AEP inundation, Current				1% AEP, 2065				1% AEP, 2120				
	Human	Economic	Social/cultur	Env/ecol	Human	Economic	Social/cultur	Env/ecol	Human	Economic	Social/cultur	Env/ecol	
North Cell (7 units)	A	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	B	Very low	Negligible	Moderate	None	Very low	Negligible	Moderate	None	Very low	Very low	Moderate	None
	C	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	D	Very low	Very low	Low	Very high	Very low	Low	Low	Very high	Very low	Low	Low	Very high
	E	Very low	Low	Low	Very high	Very low	Moderate	Low	Very high	Very low	Moderate	Low	Very high
	F	Very low	Low	None	None	Very low	Low	None	None	Very low	Low	None	None
	M	Very low	Negligible	Low	Very high	Very low	Negligible	Low	Very high	Very low	Negligible	Low	Very high
South Cell (9 units)	G	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	Low	None
	H	Very low	Very low	Low	None	Very low	Very low	Low	None	Very low	Very low	Low	None
	I	Very low	Negligible	Moderate	Moderate	Very low	Very low	Moderate	Moderate	Very low	Low	Moderate	Moderate
	J	Very low	Negligible	None	High	Very low	Moderate	None	High	Very low	Very high	None	Very high
	K	Very low	Low	None	Moderate	Very low	Moderate	None	Moderate	Very low	High	Moderate	High
	L	Very low	Negligible	None	None	Very low	Low	Moderate	None	Very low	Low	Moderate	None
	N	Very low	Negligible	None	High	Very low	Negligible	None	High	Very low	Very low	None	High
	O	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Low	None	None
	P	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None

Assessment Cell Option V (North/South)													
EROSION													
Mapping unit	P1%, Current				P1%, 2065				P1%, 2120				
	Human	Economic	Social/cultur	Env/ecol	Human	Economic	Social/cultur	Env/ecol	Human	Economic	Social/cultur	Env/ecol	
North Cell (7 units)	A	Very low	Very low	None	None	Very low	Very low	None	None	Very low	Very low	None	None
	B	Very low	Low	None	None	Very low	Moderate	None	None	Very low	High	None	None
	C	Very low	Very low	None	None	Very low	Low	None	None	Very low	Moderate	None	None
	D	Very low	Very low	Low	None	Very low	High	Low	None	Very low	Very high	Moderate	None
	E	Very low	Very low	None	None	Very low	Moderate	None	None	Very low	Moderate	Low	None
	F												
	M	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
South Cell (9 units)	G	Very low	Low	None	None	Very low	Low	None	None	Very low	Moderate	Low	None
	H	Very low	Very low	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	I	Very low	Very low	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	J	Very low	Negligible	None	None	Very low	Low	None	None	Very low	Very high	None	None
	K	Very low	Low	None	None	Very low	Moderate	None	None	Very low	High	None	None
	L	Very low	Very low	None	None	Very low	Low	Moderate	None	Very low	Low	Moderate	None
	N	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	O	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None
	P	Very low	Negligible	None	None	Very low	Negligible	None	None	Very low	Negligible	None	None

**APPENDIX 4****INITIAL LIST OF PARTIES TO BE CONSIDERED FOR THE ASSESSMENT CELL WORKING PARTY  
PROCESS<sup>5</sup>****(OPTION V. North/South (2 cells))****NORTHERN CELL****Non-Voting**

Independent Chair	(1)
Kaumatua	(1)
Facilitator	(1)
Assistant Facilitator	(1)
Technical Focus Group	(6)

**Voting**

HBRC Councillor	(1)
NCC Councillor	(1)
HDC Councillor	(1)
Mana Whenua	(2)
Whirinaki Community	(1)
Bayview Community	(2)
Westshore Community	(2)
Ahuriri / Pandora Community	(2)
Recreational Interests	(1)
Port of Napier	(1)
Ahuriri / Pandora Businesses	(1)
NZTA/Lifelines	(1)
DoC	(1)

<b><u>Total Voting</u></b>	<b>(17)</b>
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<sup>5</sup> To be discussed and confirmed with the Joint Committee and Communities of Interest



**SOUTHERN CELL**

**Non-Voting**

Independent Chair	(1)
Kaumatua	(1)
Facilitator	(1)
Assistant Facilitator	(1)
Technical Focus Group	(6)

**Voting**

HBRC Councillor	(1)
NCC Councillor	(1)
HDC Councillor	(1)
Mana Whenua	(2)
Te Awanga/Clifton Community	(2)
Haumoana Community	(2)
East Clive Community	(2)
Marine Parade Community	(1)
Recreational Interests	(1)
Awatoto Businesses	(1)
Napier CBD Businesses	(1)
NZTA/Lifelines	(1)
DoC	(1)

**Total Voting** (17)

Attachment 1

Item 6

Monday 02 May 2016

**Subject: PROJECT MANAGER UPDATE**

**Reason for Report**

1. In accordance with instructions from the Joint Committee, this report is provided in place of the written report required from the Project Manager in accordance with the Terms of Reference for the Joint Committee.
2. It provides an opportunity for the Project Manager to present a verbal update to the Committee and answer any questions on general project matters including tracking against timeframes, milestone achievements and project risks. The Project Manager will provide a verbal update at the meeting.

**Recommendation**

1. That the Clifton to Tangoio Coastal Hazards Strategy Joint Committee receives the ***Project Manager Update*** report.

**Simon Bendall**  
**PROJECT MANAGER**

**Attachment/s**

There are no attachments for this report.



Monday 02 May 2016

**Subject: UPDATE OF PROTECTION WORKS AT WHAKARIRE AVENUE**

1. This report provides an opportunity for Napier City Council staff to update the Joint Committee on progress with the protection works at Whakarire Avenue.
2. Napier City Council staff will provide a verbal update at the meeting.

**Recommendation:**

1. That the Clifton to Tangoio Coastal Hazards Strategy Joint Committee receives the verbal ***Update of Protection Works at Whakarire Avenue*** report.

**Simon Bendall**  
**PROJECT MANAGER**

**Attachment/s**

There are no attachments for this report.





Monday 02 May 2016

**Subject: UPDATE ON PROPOSED REVETMENT WORKS AT CLIFTON**

1. This report provides an opportunity for Hastings District Council staff to update the Joint Committee on proposed revetment works at Clifton.
2. Hastings District Council staff will provide a verbal update at the meeting.

**Recommendation**

1. That the Clifton to Tangoio Coastal Hazards Strategy Joint Committee receives the verbal ***Update on Proposed Revetment Works at Clifton*** report.

**Simon Bendall**  
**PROJECT MANAGER**

**Attachment/s**

There are no attachments for this report.



# CLIFTON TO TANGOIO COASTAL HAZARDS STRATEGY JOINT COMMITTEE

Monday 02 May 2016

Item 10

## Subject: UPDATE ON THE PORT OF NAPIER

1. This report provides an opportunity to update the Joint Committee on the proposed development plans at the Port of Napier.
2. Technical Advisory Group members will provide a verbal update at the meeting.

### Recommendation:

1. That the Clifton to Tangoio Coastal Hazards Strategy Joint Committee receives the verbal ***Update on the Port of Napier*** report.

**Simon Bendall**  
**PROJECT MANAGER**

### Attachment/s

There are no attachments for this report.