

# APPENDICES MINUTES

Paraparaumu Community Board Meeting

Tuesday, 26 March 2024

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# IS WELLINGTON SINKING?

Sean Rush\*

Bruce Hayward's well referenced article "Is Auckland Sinking?" (Geoscientist Aotearoa/New Zealand Issue 4, November 2023) seeks an explanation of an apparent mismatch between the well-established tectonic stability around Auckland, and satellite observations of subsidence publicised by a government-funded research team known as the "SeaRise Project" in May 2022 (see Box).

Wellingtonians have been asking the same question as Bruce Hayward. As with Auckland, there is a plethora of science showing that, contrary to the SeaRise modelling, parts of the Wellington region have been rising out of the water throughout the late Quaternary, due to episodic seismic and aseismic processes (e.g., Pillans et al., 1995¹; Beaven and Litchfield 2012²; Ninis et al., 2022³). However, the SeaRise news coverage, and the online 'tool'<sup>6</sup> (Fig. 1), suggested that parts of Wellington, such as Petone and Owhiro Bay, could be subject to sea level rise of

30 cm by 2040. Land subsidence, known as "Vertical Land Movement" or "VLM", is driving this accelerated rate, doubling the rate of relative sea level (RSL) rise.". As Bruce Hayward found, the SeaRise claims appeared inconsistent with peer reviewed research and observations from around the region and warrant closer examination.

### Queen's Wharf Wellington

Subsidence

Location 2502 on the SeaRise 'tool' is at Queen's Wharf Wellington, about 10 km from both Petone and Owhiro Bay. It is also the location of the Wellington Harbour Tide Gauge for which measurements are available online from 1944 courtesy of the Permanent Service for Mean Sea Level (PSMSL; Fig. 2). Analysis of the tide gauge data indicate that the average increase in monthly RSL observed by the tide gauge from 1944 to 2020 is 24.6 cm.

# The NZ SeaRise Project

The NZ SeaRise: Te Tai Pari O Aotearoa programme was a \$7.1 million, five-year (2018–23) research programme funded by the Ministry of Business Innovation and Employment-administered Endeavour Fund, involving a team of scientists from several institutions and led by Professor Tim Naish and Professor Richard Levy of the Antarctic Research Centre, Victoria University of Wellington. In 2022 the team received a further five-year grant of \$13 million to extend its work.

The peak deliverable for the original SeaRise programme was an online tool providing projections of relative sea level rise at 2 km intervals around New Zealand's entire coast, out to 2150, with decadal milestones highlighted. The method utilised summed global projections for global (absolute) sea level rise from the Intergovernmental Panel on Climate Change (IPCC), with the team's estimates of local (tectonic, sediment compaction, etc.) vertical land motion. The latter has been primarily informed by an historic (2003–11) InSAR data set, with lesser reference to continuous GPS and tide gauge records.

The results were fast-tracked into the Ministry for the Environment's (MfE) 2022 "Interim guidance on the use of new sea-level rise projections" and the final version (MfE, 2024) was issued in February 20244. It also featured in literature associated with the MfE's coastal adaptation ("managed retreat") consultation<sup>5</sup>.

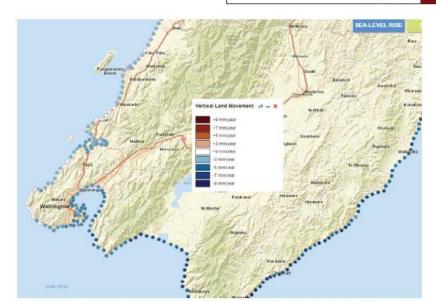


Figure 1: Screen capture of NZ SeaRise map of Vertical Land Movement for Wellington Region, 2003 – 2011. From https://searise.takiwa.co/map/6233f47872b8190018373db9/embed

SeaRise record a 3.09 mm/yr subsidence rate between 2003 and 2011. This is consistent with the findings of Denys et al. (2020)<sup>8</sup> of an average interseismic subsidence rate in Wellington of ~3 mm/yr. But extrapolating that back to 1944 would suggest the VLM component of RSL alone would be 23.5 cm to 2021 across the 76-year data set. This leaves only 1.1 cm of sea level rise from the documented increase in absolute sea level (the height of the ocean surface above the centre of the Earth). Such a rate is well below established trends documented across the tide gauge record (e.g. Denys et al., 2020<sup>8</sup>) suggesting SeaRise's VLM component is far too high.

In reconciliation of the apparent mismatch, Denys et al. (2020)<sup>8</sup> explain that slow slip events (SSEs) have been responsible for an average of 0.8 mm/yr of uplift from 1997 through to the end of their data set in 2013. They conclude:

"subsidence is not steady state and to understand the VLM, it is the average rate for the duration of the TG [tide gauge] data (subduction plus uplift) rather than the actual subduction rate that we need to determine."

Adopting a longer data set to determine land movement trends, relevant for RSL projections, is recommended by Beaven and Litchfield (2012)<sup>2</sup>. They note that:

"SSEs modulate the interseismic vertical motion so that a measurement of land elevation change between two SSEs may be quite different from the rate averaged through many events (which is the rate of most interest for RSL predictions)".

This modulation, when coupled with other sources of uplift, may result in the cancellation or even the reverse of the subsidence predicted by the SeaRise modelling.

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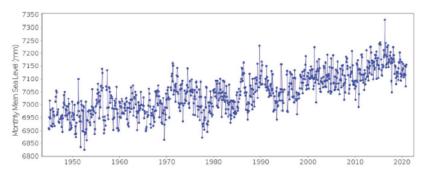


Figure 2: Monthly Mean Sea Level measured by the Queen's Wharf tide gauge in May 2022 with the level extended back in time. Source: PMSL web data - 221 high.png (900×360) (osmsLorg)

For example, more recent work has been undertaken by NIWA, amongst others (e.g. Wallace, 2020<sup>9</sup>), on the nature and return times of SSEs as well as observations of uplift from other sources.

NIWA advised the Greater Wellington Regional Council regarding RSL in a 2018 client report<sup>10</sup>. Like Denys et al. (2020)\*, the authors were cautious about estimating VLM based solely on transitory subsidence. Their longer data sets were from 23 Global Navigation Satellite System (GNSS) sites around the region between 2008 and 2018, and from 1998 to 2018 for three sites, including Queen's Wharf. Relevant to the SeaRise modelled subsiding trend, they state:

"The net effect is that the subsidence due to the subduction of the Pacific plate under the Australian plate and coseismic displacement to date was mostly cancelled out by the current day Kaikoura earthquake postseismic deformation and the upwards ratcheting effect of the SSEs."

Figure 3 is a chart showing VLM at the GPS site at the Wellington airport, 5 km from the Queen's Wharf tide gauge, where uplift from Kaikõura and other sources clearly prove NIWA are right. Wallace (2020)³ documents similar uplift on the Kapiti Coast with GNS Science reporting that the Kapiti Coast had been subject to uplift of up to 1 cm in the first half of 2023 alone<sup>11</sup>.

These sources of uplift have likely occurred previously and are likely to recur. But they were not observed in the short-term inter-seismic SeaRise dataset and

accordingly are not modelled in their projections. Consequently, the SeaRise projections of future VLM are biased towards subsidence in the Wellington area.

#### Projections

The SeaRise projections of RSL rise at the Wellington Harbour Tide Gauge, Queen's Wharf (Fig. 4), are similarly erroneous when compared to observations. The SeaRise online tool projects RSL rise from 2005 through to 2150, with decadal milestones, based on the IPCC's analysis of the response of absolute sea level to various emission pathways: from the lower pathway known as SSP1–1.9 through to the 'very unlikely' <sup>12,13,14,15</sup> highest pathway of SSP5-8.5. To these estimates are added the local VLM component projected by SeaRise.

The first milestone is 2020, where we now have measured data to test the model. At site 2502, which is at Queen's Wharf, using a realistic emission pathway, SSP2-4.5, SeaRise estimate with 'medium confidence' an overall rise in relative sea level of 11 cm, which without the VLM component, reduces to 6 cm, inferring a VLM component of –5 cm (P50 values).

During the same 15-year period the tide gauge recorded an increase of RSL of only 2 cm, which includes VLM (Source: <a href="https://psmsl.org/data/obtaining/rlr.monthly.data/221.rlrdata">https://psmsl.org/data/obtaining/rlr.monthly.data/221.rlrdata</a>). The SeaRise methodology of adding IPCC estimates of absolute sea level rise to local rates of subsidence results in an over-estimation of around 550% for this site. This exaggerated rate is replicated around the region.

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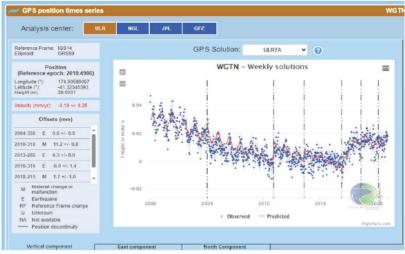


Figure 3: Screen capture of GPS measurements located at Wellington airport. Source: https://www.sonel.org/spip.php?page=gps&idStation=898

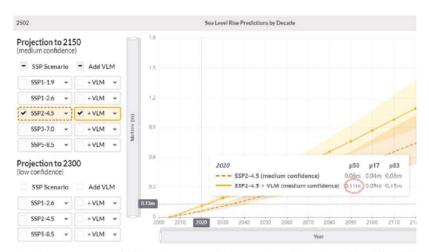


Figure 4: Screen capture of the SeaRise online tool for site 2502 highlighting the 11 cm projected RSL at 2005 – 2020 which reduces to only 6 cm without the VLM component (as at 25 January 2024 available at <a href="https://searise.takiwa.co/map/6235f47872b8190018373db9/embed">https://searise.takiwa.co/map/6235f47872b8190018373db9/embed</a>).

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The adoption of this novel methodology adds complexity to an otherwise simple analysis. For example, an alternative straightforward method of predicting future RSL is to fit a statistical model to the long-term relative sea level records and extrapolate the model into the future to provide a forecast. Figure 5 shows an Autoregressive Integrated Moving Average (ARIMA) model that accounts for the serial autocorrelation of sea level data and non-stationarity due to an underlying acceleration of sea level rise. The ARIMA model was fitted to the data from 1901 to 2004 (red dashed line), and used to forecast sea level rise from 2005 to 2030 with 95% confidence limits (upper limit black dotted line, lower limit orange dotted line). The observed RSL for 2005-2021 are also plotted (black line), and it is evident that the ARIMA forecast has predicted annual sea levels reasonably well up to 2021. The expanding separation of the confidence limits with time also restricts the utility of longer duration extrapolations.

#### Conclusion

Bruce Hayward's piece concludes by offering possible explanations for why the SeaRise modelling is at odds with established Holocene records pertaining to Auckland. For Wellington, the explanation is clear: SeaRise's short-term, inter-seismic, data set has not recorded the episodic uplift associated with near and far earthquakes or slow slip events-both of which have recurred periodically. Over the medium term (>30- 100 yrs) these can cancel out the predicted subsidence. Over geologic time frames they result in

More recent research, presented at the GSNZ 2023 Conference (Stern et al., 202316), suggests that satellite measurements may be biased towards subsidence. They advise using the tide gauge to test GNSS measurements. I agree.

The SeaRise model, (Naish et al., 2022, submitted<sup>17</sup>) has not yet passed peer review but has been

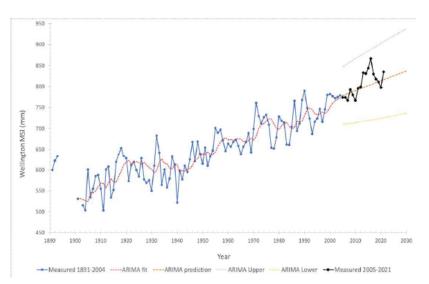


Figure 5: Annual mean relative sea level at Wellington from 1891 to 2021 using data from Bell & Hannah (2012)18, updated with data from the Permanent Service for Mean Sea Level (PSMSL) and LINZ tide gauge site WLGT sensors 40 & 41. An ARIMA model was fitted using R functions auto.arima and forecast provided by the package forecast. The upper and lower bounds for the forecast correspond to 95% confidence limits.

embraced by the Ministry of the Environment and is being adopted by coastal City and District Councils for town planning purposes. But with question marks

Acknowledgements

The author is grateful for the assistance and encouragement of Bruce Hayward, Mac Beggs, Andy Nicol, and Willem DeLange who also assisted with the ARIMA model analysis and SeaRise projections in Figure 4.

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FNinis, D., Little, T., Litchfield, N.J., Wang, N., Jacobs, K. & Henderson, C.M. (2022). Pleistocene marine terraces of the Wellington south coast - their distribution across multiple active faults at the southern Hikurangi subduction margin, Aotearoa New Zealand. New Zealand Journal of Geology

Expert Working Group on Managed Retreat. (2023). Report of the Expert Working Group on Managed Retreat: A Proposed System for Te Hekenga Rauora/Planned Relocation, Wellington: Expert Working Group on Managed Retreat

5 Expert Working Group on Managed Retreat. (2023). Report of the Expert Working Group on Managed Retreat: A Proposed System for Te Hekenga Rauora/Planned Relocation. Wellington: Expert Working Group on Managed Retreat.

6 Image and commentary available at https://www.searise.nz/maps-2 last visited 25 January 2024.

around the model's accuracy for Auckland and now,

Wellington, perhaps it is time to revert to the tried and

trusted tide gauges as our best approach to measure

Meanwhile, I'd be interested to hear from other

members who have similar concerns about the

seeming inconsistency of the SeaRise VLM rates or

projections with established trends in your region.

medium-term RSL and estimate forward rates.

Denys, P., Beaven, R.J., Hannah, J., Pearson, C.F., Palmer, N., Denham, M. & Hreinsdottir, S. (2020) "Sea Level Rise in New Zealand: The Effect of Vertical \*Land Motion on Century-Long Tide Gauge Records in a Tectonically Active Region."

\*Wallace, L.M. (2020). Slow Slip Events in New Zealand. Annual Review of Earth and Planetary Sciences 48(1): 175–203.

<sup>10</sup>NIWA CLIENT REPORT No: 2019007HN, Report date: December 2018 NIWA Project: WRC19201.

<sup>11</sup>See <a href="https://www.geonet.org.nz/news/6vAA6FVH|9ojGmkONfsoOi">https://www.geonet.org.nz/news/6vAA6FVH|9ojGmkONfsoOi</a> last visited 6 June 2023.

<sup>12</sup>Hausfather, Z. & Peters, G.P. (2020a). Emissions – the 'business as usual' story is misleading. Nature577(7792): 618–620.

<sup>13</sup>Hausfather, Z. & Peters, G.P. (2020b.) RCP8.5 is a problematic scenario for near-term emissions. Proceedings of the National Academy of Science 117(45): 27791-27792.

<sup>14</sup>Pielke Jr, R. & Ritchie J. (2021). Distorting the view of our climate future: The misuse and abuse of climate pathways and scenarios. Energy Research and Social Science 72: 101890

15 Burgess, M.G., Ritchie, J., Shapland, J., & Pielke Jr, R. (2021). IPSS baseline scenarios have over-projected emissions and economic growth. Environmental Research Letters 16: 014016

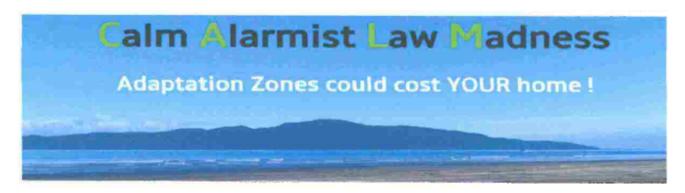
14Stern, T., Lamb, S. & Denys, P. (2023). Forecasting relative sea level change within an active plate-boundary zone: New Zealand tide gauge and GNSS time series. In: Frontin-Rollet GE, Nodder SD ed. Geosciences '23. Wellington, New Zealand, Geoscience Society of New Zealand, Pp. 232.

<sup>17</sup>Naish, T. et al. Submitted. The significance of vertical land movements at a convergent plate boundary for probabilistic sea-level projections for AR6 scenarios: The New Zealand case. Submitted to Earth's Future. Working paper available at https://www.searise.nz/publications and https://www.essoar.org/doi/abs/10.1002/essoar.10511878.1

\*\*Bell, R.G. & Hannah, J. (2012). Sea level variability and trends: Wellington Region - Prepared for Greater Wellington Regional Council. Hamilton. (NIWA Client Report HAM2012-043).

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Dear Chair, Councillors and Community Board.

Thank you for the opportunity to speak on behalf of CALM (that is Calm Alarmist Law Madness, a grassroots advocacy group).

As spokesperson, I would like to provide feedback on the Urgent Community Meeting we held last Tuesday evening.

We had an excellent turnout of around 150 Kapiti residents, with standing room only. We appreciated the attendance of Councillors Glen Cooper, Martin Halliday and Nigel Wilson.

CALM has received an overwhelmingly positive response in the days following the meeting, and we are gaining a large amount of support and traction as a result.

The common thread in the feedback is why the Council would use extreme modelling upon which to base a scenario that would lead to an unrecoverable loss of property values, insurance premiums which are beyond the means of most home and business owners, and the very real potential for the cancellation of policies altogether.

Secondly, residents were totally blindsided and angered by the incredulous news there was a blanket placement (without community consultation) of hazard notices with reference to Jacob's on all Kapiti ratepayers' LIMs, including elevated properties kilometres inland. This appears to us to be a pre-determined result since CAP have not yet finished their recommended pathway plan for the Council to vote on in the next few months. We are already in a recession and staring down the barrel of a proposed 17% rates rise by the Council. Perhaps it's time for the Council members to explain their actions to the community.

CALM believe people are now being seriously impacted by the Coastal Advisory Panel process the personal stories the community has shared with CALM have been heartbreaking.

Last Wednesday, a Newsroom article by Jonathan Milne had this to say: "when councils go getting involved and start picking extreme values, it has massive impacts on flood risk projections and it skews the perceived viability". Professor Dave Frame, who was a lead author on the Fifth and Sixth Assessment Reports of the IPCC, agreed that extreme modelling "puts the council at risk of legal challenge, and could impose added costs on developers and ultimately the community".

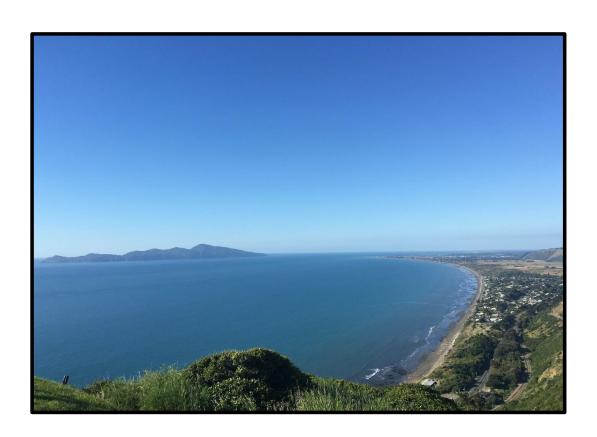
Therefore, today, we ask you as Paraparaumu Community Board members and Council Representatives to advocate on the behalf of Kapiti ratepayers:

- That notations on LIM's referring to hazards & Jacob's be removed immediately (titled "Coastal Erosion and Inundation Hazards") or any other variations of this type.
- That extreme modelling (e.g. SSP/RCP 8.5) is removed from CAP pathway plans in their recommendations to Council.

Thank-you.

# CULTURAL VALUES ASSESSMENT REPORT for the

# TAKUTAI KĀPITI Community-Led Coastal Adaptation Project



2023

Dr Aroha Spinks, Lindsay Poutama, Moira Poutama

# CULTURAL VALUES ASSESSMENT REPORT for the

# TAKUTAI KĀPITI Community-Led Coastal Adaptation Project

2023

Dr Aroha Spinks, Lindsay Poutama, Moira Poutama

**NOTE:** Iwi perspectives in this report do not represent Ātiawa ki Whakarongotai. <sup>1</sup>

Citation when using information from this report as follows (please also consider the notation above if referencing iwi perspectives and in particular Ātiawa ki Whakarongotai):

Spinks, A., Poutama, L., Poutama, M., 2022, Cultural Values Assessment Report for the Takutai Kāpiti Community-Led Coastal Adaptation Project, Kāpiti Coast District Council.

Photo on front cover: Aroha Spinks, 2020.

<sup>&</sup>lt;sup>1</sup> Email Dr Mahina-a-rangi Baker 9 June 2022 and email Melanie McCormick 19 October 2022.

Korihi te manu

Tōia mai a Tamanui te ra

Ki te aotukupu

Hei hura i te kahu o te po.

I tupu ko te pū

Ko te weu,

Ko te rito

Ko te take

Ko te pukenga

Ko te wānanga

Tēnā rukutia ki te toi rangi

Ki te toi nuku

Ki te te toi o te ora,

He oranga taiao, hei oranga tangata

Tūturu ki a Rongo whakamaua kia tina, tina, hui e tāiki e

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# <u>Te Ao Māori</u>

In accordance with traditional Māori practice and perspectives of our worldviews we often share our knowledge through narratives. Thus to begin this report let us provide the readers with a brief story of climate change to show that it is not a new concept to us and may provide us with lessons for the future. This aligns with a whakataukī (proverb) 'Titoro whakamuri, kokiri whakamua' – look back and reflect so that we can move forward. Local kaumātua Don Te Maipi used another whakataukī during the opening ceremony and celebration of Takutai Kāpiti 'Whatungarongaro te tangata toitū te whenua' – as people fade from view the land remains. The proverb refers to Te Ao Māori (the many world views of Māori) that have holistic values, the utmost respect for Papatūānuku (the whenua/land), our connections to the land and environment. In essence Māori view Papatūānuku as a person, an ancestor as opposed to an economic resource which is malleable to its will. This report will reflect on the wellbeing of Papatūānuku and people, in order to encourage the best choices as a community to move forward into the future informed by mātauranga Māori.

During the separation of Ranginui (the Sky Father), and Paptūānuku (the Earth Mother) by Tane Māhuta (deity of forests) a number of his siblings were not in favor of the separation and vowed eternal retribution. Tāwhirimātea (deity of weather) took to the sky and in a maddened rage he attacked Tane Māhuta flattening forests with storms. Next he turned on the oceans causing huge waves to rise, whirlpools form, and Tangaroa (deity of the sea), and his proginy flee in panic. Punga, a son of Tangaroa, has two children, Ikatere (father of fish), and Tu-te-wehiwehi (the ancestor of reptiles) who is also known as Tu-te-wanawana depending on where you are from. Terrified by Tāwhirimātea's onslaught the fish sought shelter in the sea and the reptiles in the forests. Ever since Tangaroa has been angry at Tāne Māhuta for giving refuge to his runaway reptilian children and these two siblings have fought. Tane Māhuta supplies the descendants of Tūmatauenga (deity of war) with canoes, fish hooks and nets to catch the descendants of Tangaroa and he retaliates by swamping canoes and sweeping away land, trees and houses to sea.

In many regions repo (swampland) was created as a buffer zone between the two domains. This repo area also feeds nutrients into our shellfish beds as well as filtering returning water back to Tangaroa. From a humanistic perspective repo or swamps are seen as the liver of Papatūanuku and are vital in maintaining the health of the waterways and the land as a whole. There are elements of both in this coastal region. That area needs salty water and it also needs freshwater. This is not to be considered a balance in nature because it changes constantly. We can refer to this as a dynamic harmony – it moves along a continuum.

There are many variations from iwi (tribes) about why Rūaumoko (the deity of earthquakes and volcanoes) went underground but he is directly responsible for the warming and cooling of his mother Papatūanuku and in effect the seasonal changes.

Whiro (the deity of darkness and the total embodiment of evil) still rages at the separation of his parents. He is responsible for the unexplainable events, the one in a hundred or thousand year storm, flood, drought, fire, pestilence that ravages the land, forests, seas or air.

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# **ART Confederation History**

This section provides a short historic account of the iwi holding mana whenua within the Kāpiti Coast District who have been closely connected in this region for over a century. Te Rauparaha a prominent chief of Ngāti Toa Rangatira, instigated the initial migrations to this area, resulting in settlements throughout the Horowhenua-Kāpiti-Porirua coast and beyond. Tribal members on arrival by heke were of Ngāti Awa, Ngāti Raukawa, and Ngāti Toa Rangatira descent and through their alliance and association are often collectively referred to as the ART Confederation. The environment was lush, pristine and abundant, our people were healthy and strong, although internally at times there were admittedly skirmishes, they still remained an alliance, supported each other and fought united together to remain in this area. To this day these three iwi uphold the mana of their tūpuna in the Kāpiti Coast District they are now known as Ātiawa ki Whakarongotai, Ngāti Raukawa ki te Tonga and Ngāti Toa Rangatira. Collectively this is often shortened to the ART Confederation.

From the 15th century Ngāti Toa Rangatira (also commonly referred to as Ngāti Toa) was a hapū of Ngāti Mango and had a strong presence in the Kāwhia district.<sup>2</sup> Toa Rangatira was a chief and a direct descendant of Hoturoa, commander of the Tainui waka that travelled from Hawaikii to Aotearoa. He was the youngest son of the chief Korokino, of Ngāti Mango, and his wife Tuwhareiti, daughter of Mutunga of Ngāti Mutunga (Taranaki). Toa Rangatira was recognised as a courageous and astute leader in war, and his counsel and wisdom respected in times of peace. Ngāti Toa became a dominant hapū in the greater Kāwhia district."<sup>3</sup> Due to conflicts Te Rauparaha (Ngāti Toa Rangatira fathers side, Ngāti Raukawa mothers side) and fellow rangatira leaders such as Te Rangihaeta, Te Peehi Kupe, Tungia, Te Rangihiroa and others lead their people through to the Kāpiti Coast.<sup>4</sup> Thus the ancestors of Ngāti Toa Rangatira began to arrive in the Kāpiti region and exert their mana circa 1818<sup>5</sup>.

In 1821 migrations began with 'Te Heke Mai Raro' as the people of Te Āti Awa people from Taranaki along with their Ngāti Toa Rangatira kin began to arrive in this district. In 1824, Ngāti Raukawa also kin to Ngāti Toa Rangatira were called upon and joined the iwi collective in further migrations from the Waikato region, the first heke was called 'Heke Karere'. Further heke continued in 1826 'Te Heke Whirinui', 1827 'Te Heke Kariritahi', and 1828 'Te Heke Mairaro'. Te Rauparaha and his followers could put four thousand warriors in the field.

<sup>&</sup>lt;sup>2</sup> Selby, R. (Ed.), 2004, Hippolitte, E., in Te Pā Harakeke, Te Wānanga-o-Raukawa Journal, Volume 1, p. 18-19.

<sup>&</sup>lt;sup>3</sup> https://natlib.govt.nz/records/22350263

<sup>&</sup>lt;sup>4</sup> Selby, R. (Ed.), 2004, Hippolitte, E., in Te Pā Harakeke, Te Wānanga-o-Raukawa Journal, Volume 1, p. 18-19.

<sup>&</sup>lt;sup>5</sup> Waaka, R., 2022, Cultural Impact Assessment Report for Ngātotara Farms Limited RM210260, p. 5.

<sup>&</sup>lt;sup>6</sup> Baker, 2019, Te kete Tua-ātea, Māori modelling of the future and the kaitiakitanga of water, doctoral thesis, Massey University, Palmerston North, Appendix B.

<sup>&</sup>lt;sup>7</sup> Luke, D., & Te Momo, F., 2019, He Iti Nā Mōtai, Volume 1, Te Hono ki Raukawa Oral and Traditional History Report, p. 255.

<sup>8</sup> https://xplorepaekakariki.org.nz/early\_days/ngati-haumia/

Settlements throughout this region were established and prior to European arrival their daily lifestyles were carried out in traditional ways with long established cultural values and practices. The ancestors of ART Confederation iwi through multiple heke, battles and agreements established mana whenua throughout the Kāpiti Coast District which they have maintained to today.



**Figure 1:** Te Rangihaeta and whānau, in the Paekakāriki area. (Source: Alexander Turnbull Library)<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> Cited and downloaded from https://xplorepaekakariki.org.nz/early\_days/ngati-haumia/

# Iwi, Hapū and the Kāpiti Coast District Council

Mai i Waitapu ki Rangataua, mai i Mīria-te-kākara ki Whitireia, whakawhitia Te Moana o Raukawa, ki Wairau, ki Whakatū.

For two centuries the ART Confederation (Te Āti Awa, Ngāti Raukawa, Ngāti Toa Rangatira) a collective of iwi have asserted their role as mana whenua throughout the Kāpiti Coast district. They have a population of about 40,000 inclusive of members living outside the district. Although many have departed these ancestral lands many ART descendants continue to live within the district and intend to remain for all eternity. We therefore have a huge investiture into our partnerships with local authorities such as Kāpiti Coast District Council (KCDC).

- Te Āti Awa ki Whakarongotai represented by Āti Awa ki Whakarongotai Charitable
- Ngāti Raukawa ki te Tonga represented by Ngā Hapū o Ōtaki
  - o Ngāti Huia ki Katihiku
  - o Ngāti Koroki
  - Ngāti Maiotaki
  - Ngāti Pare
  - Ngāti Kapumanawawhiti.
- Ngāti Toa Rangatira represented by Te Rūnanga o Toa Rangatira Inc.

Te Whakaminenga o Kāpiti is one of the longest lasting partnerships between mana whenua and Local Government in New Zealand. The partners are the KCDC and the mana whenua on the Kāpiti Coast. 'Te Whakaminenga', means 'The Confederation', which is used by the three iwi to describe themselves. The addition 'o Kāpiti' / of Kāpiti was designed to include the Kāpiti Coast District Council. On the 9th of February 1994, Āti Awa ki Whakarongotai Inc, Te Rūnanga o Raukawa Inc and Te Rūnanga o Toa Rangatira Inc all signed a Memorandum of Partnership with KCDC (see Figure 2). Te Whakaminenga o Kāpiti first met on 8 March 1994. The goal of Te Whakaminenga is to forge a relationship of mutual benefit between the Kāpiti Coast District Council and mana whenua that will develop into an effective and meaningful partnership. Further to that as Te Whakaminenga o Kāpiti has primarily been involved with issues surrounding resource management, it has also worked, in recent years to ensure that the Māori world view is better represented and understood in our wider community. The updated memorandum of partnership signed on the 5<sup>th</sup> of December 2017 is available on the KCDC's website, it outlines the objectives and commitments to each other in more recent terms. 10 The signing of this Memorandum of Partnership just like our tūpuna who signed Te Tiriti o Waitangi has cultural value to us, it has mana, it is very meaningful. As Māori we do not make these commitments lightly and have expectations of a mutually beneficial

<sup>&</sup>lt;sup>10</sup>https://www.kapiticoast.govt.nz/our-district/tangata-whenua/te-whakaminenga-o-kapiti-iwi-and-council-partnership-committee/

relationship which we honour each other and also respect our differing perspectives and intend to work together for the common good of our peoples, of our environment and for future generations.

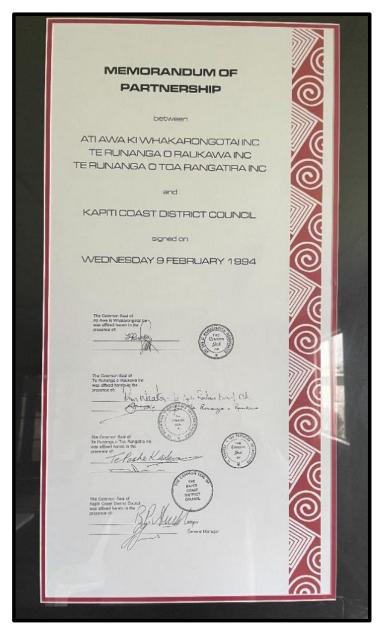


Figure 2: Memorandum of Partnership KCDC and mana whenua.

In 2012, members of the ART Confederation participated in a review of the KCDC District Plan with Hāpai Whenua consultants, Pātaka Moore, Caleb Royal and Alex Barnes. <sup>11</sup> Seven theme documents were reviewed by ART iwi members and explored with the authors: Global

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<sup>&</sup>lt;sup>11</sup> Moore, P., Royal, C., Barnes, A., 2012, Te Haerenga Whakamua: A review of the district plan provisions for Māori: A vision for the future for KCDC District Plan Review 2009-2012.

change: Issues and pressures; Urban form and transport; Infrastructure and essential systems; Natural hazards and managed retreat; Landscape, character and heritage; biodiversity; Food and rural productivity. Discussions on these themes highlighted collective ART Confederation as well as individual iwi concerns and recommendations for the future. Four overarching kaupapa/cultural values were identified as significant and thus highlighted throughout the report:

- o Pūkengatanga set of skills; teaching; creation and passing on of knowledge
- o Ūkaipōtanga land; home; places Māori feel strong, energised and connected
- Manaakitanga show repect or kindness; the practice of caring for others; mana enhancing
- Kaitiakitanga guardianship; trusteeship; stewardship; resource management; conservation

A number of aspects of the 2012 report remain relevant to the continued crises of climate change that is impacting upon our coast and requires future planning, such as: global change issues and pressures; natural hazards and managed retreat. The report findings also pulled together a range of reflections and recommended actions to provide further tools to enhance ART and KCDC partnerships to enhance the health of our environment and the people living within the district.

# **Global Change**

Members of the ART Confederation indicated that in their opinion Māori people have the ingenuity and resourcefulness to survive the increasing pressures of global changes. They encouraged: KCDC to engage with iwi early in the planning and implementation for climate change resilience; renewable energy technology incorporated in all new buildings and infrastructure; residents to transition to sustainable energies such as solar, wind, water and recycling; free local green waste reuse programs; provision of more cycle and walkways; initiatives to reduce emissions such as annual free car emissions tests, car free days, carpool challenge, cycle days, electric community commuters; restoration for all waterways (especially those with mana whenua sites of significance).<sup>12</sup>

# Natural Hazards and Managed Retreat

Members of the ART Confederation highlighted that they have an intimate knowledge of environmental change specific to this district that was handed down through generations based on oral histories, traditional song, and stories recounting natural hazards. They supported a proactive stance towards natural hazard preparedness and managed retreat. They recommended: areas susceptible to coastal erosion and/or predicted sea level rise are identified and modeling of affected properties is available on property ID search; susceptible areas identified and residents informed of the danger they are potentially exposed to; long term managed retreat plan for vulnerable communities are developed and widely circulated

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<sup>&</sup>lt;sup>12</sup> Ibid, pp. 31-35.

throughout the district; new housing and/or housing extensions to existing houses within predicted susceptibility areas be required to sign liability waivers; subdivision and development of erosion and flood prone land prohibited; long term protection of marae including the potential for relocation to alternative sites; marae work with Civil Defence and KCDC to ensure they have emergency response plans and are adequately resourced to respond to civil emergencies; infrastructure upgrades only occurring in areas that are safe from sea level rise predictions and 100 year flood models; managed retreat from water-front properties is preferred as opposed to holding the line of the shore; investiture into new major infrastructure on high ground; funding the establishment of further dune and wetland restoration projects; ecological corridors that provide linkages to native bush remnants; emergency water supply and composting toilet facilities on all marae in the district; carbon neutrality modeling for the district is conducted every five years.<sup>13</sup>

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<sup>&</sup>lt;sup>13</sup> Ibid. pp. 52-60.

# <u>Takutai Kāpiti – our community-led coastal adaptation project</u>

# CULTURAL VALUES RESEARCH ABOUT IWI AND CLIMATE CHANGE IMPACTS THROUGHOUT THE KĀPITI COAST DISTRICT: CULTURAL VALUES ASSESSMENT REPORT

# Project background

The majority of our Kāpiti mana whenua communities live along the coastline, as such, climate change impacts on our coast have the potential to damage ancestral lands, sites of cultural significance, and the well-being and protection of mana whenua. Cultural, spiritual, social, economic and cultural considerations are as important as physical science when making informed decisions on coastal adaptation. The Cultural Values Assessment report is commissioned by the Kāpiti Coast District Council to inform an independent community-led Coastal Advisory Panel as part of the Kāpiti Coastal Hazards Susceptibility and Vulnerability Assessment. To ensure that the Coastal Advisory Panel has the best information on hand and can make informed assessments, KCDC commissioned a Kāpiti Coast Cultural Values Assessment Report for Ngāti Toa Rangatira, Ngā Hapū o Ōtaki, and Ātiawa ki Whakarongotai.<sup>14</sup>

In March 2020 KCDC started the Takutai Kāpiti - our community-led coastal adaptation project to look at the challenges climate change and sea-level rise will bring to our coastline. A technical report on how coastal hazards may affect the Kāpiti Coast District in the future as a result of sea-level rise has been completed and is available on the KCDC website <a href="https://maps.kapiticoast.govt.nz/coastal">https://maps.kapiticoast.govt.nz/coastal</a>). A map of the KCDC District is provided in Figure 3. A social impact assessment is also underway at the same time to inform the project. KCDC approved a cultural values assessment project and report to provide mātauranga and Kāpiti iwi perspectives to support community understanding, council planning, and infrastructure investment as well as inform the Takutai Kāpiti coastal adaptation project. One of the key aims of this research project will be to identify and describe environmental visions, values and positions inherited and held by the iwi of Kāpiti, and a cultural values assessment is completed to advise this project and Coastal Advisory Panel.

Ātiawa ki Whakarongotai Charitable Trust requested to write and develop a seperate iwi cultural values assessment report which has been respected by the authors and KCDC. <sup>15</sup> Their perspectives have been omitted from the remainder of this report. The forthcoming iwi report will be complimentary to this cultural values report.

# Report purpose

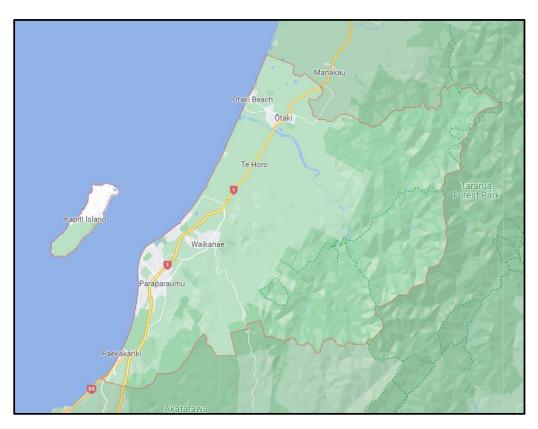
Mana whenua within the Kāpiti district continues traditional methods of korero tuku iho to pass on their cultural values as well as having researched and published on the matter. It is acknowledged that aspects of mana whenua intellectual property remain theirs. This report should not replace direct iwi engagement and communications for existing council and iwi

<sup>&</sup>lt;sup>14</sup> Iwi perspectives in this report do not represent Ātiawa ki Whakarongotai - email Dr Mahina-a-rangi Baker 9 June 2022 and email Melanie McCormack 19 October 2022.

<sup>&</sup>lt;sup>15</sup> Email Melanie McCormack 19 October 2022.

partnerships that uphold the commitments to Te Tiriti o Waitangi. This publication does not attempt to describe all cultural values of interest to our people and their descendants. Rather the explicit purpose of this research project is to report on the cultural values relevant to the KCDC recognised iwi in the Kāpiti district to inform the Coastal Advisory Panel and the Takutai Kāpiti project. It is complementary to other reports undertaken, such as the technical science reports and social impact values reports. This report considers:

- the Kāpiti Coast District Council coastal region environment;
- the cultural values, interests, and practices of iwi within the region;
- the impact of climate change and sea-level rise predictions in the district.



**Figure 3:** Kāpiti Coast District Council district shown by red borderline (SOURCE: Google maps on KCDC website)<sup>16</sup>

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<sup>&</sup>lt;sup>16</sup>https://www.google.com/maps/place/Kapiti+Coast+District,+Wellington/@-40.8564852,174.8667203,10z/data=!3m1!4b1!4m5!3m4!1s0x6d4094b606bfca37:0x400ef6143a2ac00!8m2!3d-40.8972401!4d175.1479364

# Researchers

Project Lead Dr Aroha Spinks who is of Ngāti Raukawa, Ngāti Tūkorehe, Ngāti Kapu, Ngāti Toa Rangatira, and Tainui descent is an Ōtaki resident. She holds a PhD in Resource and Environmental Planning, Bachelors of Applied Science in Fisheries with Distinction and First Class Honours, Diplomas in Arataki Manu Korero and Heke Reo. She has project managed a number of research projects as an iwi researcher and consultant including the Lake Waiorongomai Restoration Project, Crown Forestry Rental Trust funded projects: Porirua ki Manawatū Inland Waterways Historical Report; Porirua ki Manawatū Inquiry Inland Waterways Cultural Perspectives Report; Tu Te Manawaroa Oral and Traditional History Report with Te Iwi O Ngāti Tukorehe Trust; and North Eastern Bay of Plenty Environmental Issues Report. She was the Ngā Hapū o Ōtaki representative on the Phase 1 Takutai Kāpiti Co-Design Working Group who set up the recommendations for the Phase 2 Coastal Advisory Panel. She has been involved in Māori-led climate change adaptation projects on the Horowhenua coastline for a number of years. Most recently she is the former Kaihautū Taiao/Environmental Science Director for the World Wide Fund for Nature New Zealand.

Lindsay Poutama who is of Ngāti Tūkorehe, Ngāti Wehi Wehi, Ngāti Kapu and Ngāti Raukawa ki te Tonga descent is a Paraparaumu resident. Currently working as cultural advisor to Hapai Hauora, the Immunisation Advisory Centre and Uniservices (Waipapa Taumata Rau). He has held a number of key roles in iwi organisations such as Education Manager for Te Iwi O Ngati Tukorehe Trust, Chairman and Cultural Advisor for Tū Te Manawaroa Porirua ki Manawatu Claimant group, recently retired CEO of Te Rūnanga o Raukawa, and General Manager of Te Iwi O Ngāti Tukorehe Trust. Former Board member to Te Ahu a Tūranga Alliance Board Manawatū Tararua Highway where the project gained NZPI New Zealand Planning Institute Best practice Award for Consultation and Participation Strategies and Processes. Lindsay is currently involved with O2NL Roading project Ōtaki to Levin and completed the Cultural Impact Assessment for Ngāti Tukorehe. He manages a number of key strategic projects and relationships for Ngāti Tukorehe. It is his honour to sit on the sacred Paepae Tapu of Ngāti Tukorehe where as a unit, tikanga and kawa processes are maintained.

Moira Poutama who is of Ngāti Tūkorehe, Ngāti Wehiwehi, Ngāti Kikopiri, and Ngāti Kapu descent is a nearby Kuku resident. Moira has worked on a large number of research projects for Te Rangitāwhia Whakatupu Mātauranga Ltd including the Deep South National Science Challenge programme, Adaptation Strategies to Address Climate Change Impacts on Coastal Māori Communities project, and the Manaaki Taha Moana: Enhancing Coastal Ecosystems for Iwi project, and others in waterways and kaimoana restoration. She currently provides research assistance for reports commissioned by Crown Forestry Rental Trust and leads an action on the ground project for Te Hātete Trust in the WWF NZ/Australia Oceania First Voices Indigenous Climate Change Resilience project with Solomon Island, Fiji, Australia, Aotearoa.

# Report audience

The main audience for this report is not mana whenua in this district but the non-mana whenua representatives on the Coastal Advisory Panel and those involved in the project (such

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as technical advisors). The intended secondary audience will be any other individuals and community members interested in the Takutai Kāpiti project and local iwi. Mana whenua each have existing resources and publications written by their own iwi members and also continue in accordance with traditional practices to share their knowledge verbally as korero tuku iho, kõrero on pae pae, korero during wānanga, via mediums such as toi Māori, whakairo etc. This resource is not exhaustive and only represents that which mana whenua have shared publicly in the past.

# Cultural values of Mana Whenua in the Kāpiti Coast District<sup>17</sup>

Based on our traditional knowledge, mana whenua have many cultural values and practices of historic importance that also remain important today, this section will address a number of significant aspects relevant to climate change impacts and coastal adaptation. The many cultural values important to iwi in the Kāpiti Coast District cannot be summarised in this one report, however we can gain an insight by utilising the knowledge they have shared publicly. From the arrival of our tupuna in this district principal Pā sites and seasonal Papakāinga were established throughout. Within the thriving environment, ancestral landscapes and waterscapes mahinga kai were important. Numerous other sacred sites for multitudinal reasons were established by iwi. Within this past century colonial mechanisms resulted in the devastation and decline in well-being of our environment, our people, our cultural practices, and our values. It is with growing interest and strength that we remain committed to revitalisation of these factors and others for not just ourselves, our ecosystems (of which we are a part of), but also future generations of mana whenua and the wider community. It is envisaged that our cultural values, shared knowledge and recommendations will enhance the mana and mauri within our entire district and aid in adaptation strategies for climate impacts.

## Kaupapa and tikanga – Cultural values and traditional practices

Traditional Māori knowledge often referred to today as simply mātauranga Māori has a lot more complex than the simple translation, however, the fact remains that knowledge has always been of significant cultural value to our ancestors, to be protected and passed on. Körero tuku iho traditional knowledge handed down from our ancestors and with it kaupapa tuku iho traditional values handed down from generation to generation remains culturally significant today and sharing them with care to the wider community is a privilege and for the benefit of future generations. Traditionally the passing of knowledge was conducted orally (such as speeches, wānanga/learning institutes, waiata/songs, karakia/prayers) and in creative designs (such as whakairo/carvings, tukutuku panels, kowhaiwhai designs etc). Knowledge bearers were chosen by respected elders, guided and trained. Cultural values are enforced to remain intact whereas tikanga (cultural practices) and the implementation of our kaupapa (cultural values) are able to be influenced and changed. Colonisation hugely

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 $<sup>^{17}</sup>$  lwi perspectives in this report do not represent  $ar{ extsf{A}}$ tiawa ki Whakarongotai - email Dr Mahina-a-rangi Baker 9 June 2022 and email Melanie McCormack 19 October 2022.

impacted our people and culture thus the opportunities and freedom to continue to pass on our traditional knowledge, values and practices are significant and should be considered in all environmental planning in the country. In relation to climate change impacts, learning from our past and including mana whenua perspectives in future district planning and adaptation strategies is for the benefit of all.

Whakapapa/genealogy is a very significant cultural value that describes the relationship between people and the natural world. From Papatūānuku/Earth Mother and Ranginui/Sky Father their union created a number of offspring such as Tane Mahuta/God of the Forest, Tangaroa/God of the Sea, Tāwhirimātea/God of Weather, and so many more. Atua/deities, ecosystems and human are all inextricably interrelated. The genealogical relationship with all natural things also provides us with the responsibility to care for and nurture our environment, which can also be referred to as kaitiakitanga. In reference to all natural things that means the mountains, the rivers, the insects, other animals and people of other cultures. The physical and spiritual relationship to our environment is part of our cultural identity and whilst introducing ourselves we often refer to our ancestral landscape to define where we are from. Examples from mana whenua are provided below.

"Ko Tainui te waka Ko Tararua te pae maunga Ko Ōtaki me Waitohu ngā awa Ko Te Pou o Tainui te marae Ko Kapumanawawhiti te whare tūpuna Ko Ngāti Kapu te hapu."<sup>19</sup>

"Ko Tainui te waka
Ko Tararua te maunga
Ko Ōtaki te awa
Ko Ngāti Raukawa te iwi
Ko Ngāti Koroki te hapū
Ko Te Manewha te tupuna
Tihei Mauri Ora!"<sup>20</sup>

Ko Whitireia te maunga Ko Porirua te awa Ko Raukawakawa te moana Ko Ngāti Toa te iwi.<sup>21</sup>

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<sup>&</sup>lt;sup>18</sup> Interview with Te Kenehi Teira (Ngāti Raukawa), 12 October 2016, Potter, et. al., 2017, Poirua ki Manawatū Inland Waterways Historical Report, pp. 36-37.

<sup>&</sup>lt;sup>19</sup> Luke, & Te Momo, (Eds.), p. 252.

<sup>&</sup>lt;sup>20</sup> Ibid, p. 141.

<sup>21</sup> Ngāti Toa Rangatira Statement, Te Awarua-o-Porirua Whaitua Implementation Programme, p. 2.

Ngāti Raukawa ki te Tonga of which Ngā Hapū o Ōtaki also associates to, established Te Rūnanga o Raukawa in 1988 to act as its representative body for the purpose of promoting, advancing and assisting the interests and aspirations of Ngāti Raukawa, including the continued health and wellbeing of whānau, and nurturing of the taiao, whenua and awa. The Rūnanga is governed by Te Rūnanga Whāiti, comprising of the hapū delegates from the 25 hapū and the tūmuaki. Those 25 Ngāti Raukawa hapū have a population of approximately 29,000 individuals. In 2020, Te Rūnanga o Raukawa developed an environmental management plan - Te Ahu a Turanga - that identified the following cultural values.<sup>22</sup>

# "Whakapapa

Kia ū ki tōu kāwai tūpuna, Kia mātauria ai, I ahu mai koe I hea

(Trace out your ancestral stem, so that it may be known where you come, and from and in which direction you are going).

Whakapapa is a regulator of conduct, and connects us to our past, present and future. It is not just about our human connections, but also our connections to the domains of the Atua. This guides our understanding of the relationship to the maunga, water, earth, and all other living things.

# Tikanga

The first law of Aotearoa is tikanga and is the ethical framework which our tūpuna utilized to navigate life's challenges which included all matters of how to work with other iwi nations, how to build together, how to divide resources, how to harvest and trade, how to name places together, how to treat each other and how to perform essential activities that provide spiritual resource consents in terms of ensuring matters of the esoteric realm are fulfilled.

# Te Mauri O Ngā Wai

The use of water for wellbeing and healing as a tikanga that was widely practiced. This tikanga is known by some hapū within Ngāti Raukawa ki te tonga as whakahaere.

Baptisms, tohi, pure and other water rituals are still maintained. In recent times some tohunga/ ministers are halting the practice of blessing due to health and safety concerns regarding the quality of the water.

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<sup>&</sup>lt;sup>22</sup> Kereama, J., 2020, Te Ahu a Turanga: Cultural Impact Assessment.

# Manaakitanga

Is an important tikanga because it reflects and acknowledges the mana of hau kāinga (home people), as well as that of the manuhiri (visitors) of the hui. In terms of water it was about fishing to share, to feed at a hui. Looking after our old people is another tikanga intrinsic to iwi, this tikanga involves sharing the catch with kaumatua.

# Whakawhanaungatanga

Is about creating new relationships as well as strengthening whakapapa (genealogical) ties is another iwi tikanga of central importance to fishing. For tangihanga or other special hui, iwi would share kai with each other to reaffirm and strengthen our whakapapa connections.

Our iwi share a deep respect for ancestral streams, rivers, sea and homelands, and one of our tikanga was keeping kai gathering areas clean and never overfishing your particular area. In essence weed your patch of water.

The lunar calendar is important in terms of our tikanga, and it is about gathering kai at the right time and being self-regulating. The maramataka Māori or natural dynamics and cycles of that natural world, is another key tikanga contributors observe when fishing. This determines when and where to fish. This does have an impact on what we would consider culturally appropriate monitoring. 'We never went out to get tuna when the full moon was shining, because the moon has an effect on them.'

# Rahui

Is another tikanga intrinsic to fishing as well as other events which have polluted the mauri (*life force*) of a specific area or region and is applied when an area has been adversely affected, usually by a mate (*calamity or death*) or pollution, and is therefore temporarily closed.

# Karakia

Remains important when working in our waters.

'We always said karakia when we went out fishing and when we came back. Karakia was an important part of fishing, and still is....Our koro always taught us to never over strip or leave anything bare. You always left something for the future.'

# Taniwha and Tipua

Ngāti Raukawa have an inseparable identity with the river systems, streams, wetlands and lakes within the catchment and our maunga of Tararua. Our people speak of these areas in terms of the whakapapa of the maunga to the springs, streams, rivers and its connection and flow to the sea. Our shared taniwha and tipua in these areas include Mukukai and further north Papangaio amongst others. These taniwha and tipua are

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our kaitiaki whom span the metaphysical realms and guard the waterways and the beings that live in those waterways. Our people are connected to the multiple iwi in this landscape through whakapapa, shared waterways, and shared marae. This keeps our historical and current connections to these lands and waterways warm, alive and remembered.

## Pātaka Kai

This area was described as a pātaka kai, once plentiful native fish were an important source of kai and are an important ecological component of our streams and an indicator of the life supporting capacity in the region's waterways."<sup>23</sup>

In 2013, five hapū in the Ōtaki district collectively known as Ngā Hapū o Ōtaki were recognised for their commitment to transformative change through uniting around their common dreams, cultural values and aspirations for their whānau. They first began about a decade earlier when five hapū - Ngāti Korokī, Ngāti Ōtaki, Ngāti Huia ki Katihiku, Ngāti Pare and Ngāti Kapu - from the Ōtaki district faced the same issue around the consent of water use, they joined forces. They created a shared kaupapa/cultural value, "to enable whānau members and hapū in Ōtaki the opportunity to work together to realise their dreams and aspirations for building whānau capacity." Te Waari Carkeek (Ngāti Raukawa, Ngāti Toa Rangatira) stated in an interview that "it all goes back to the integrity of the leadership and our values. We found the E Tu Whānau values worked brilliantly for us... Ngā Hapū o Ōtaki sees their greatest investment as their rangātahi. Better results for our kids mean better results for our community." The E Tu Whānau cultural values adopted by Ngā Hapū o Ōtaki are — Aroha, Whanaungatanga, Whakapapa, Mana/Manaaki, Kōrero Awhi, Tikanga. Outlined briefly below from the E Tu Whānau website. 15

Aroha - Giving with no expectation of return

Whanaungatanga - It's about being connected

Whakapapa - Knowing who you are and where you belong

**Mana / Manaaki** - Building the mana of others, through nurturing, growing and challenging

Kōrero Awhi - Positive communication and actions

**Tikanga** - Doing things the right way, according to our values

The Te Rūnanga o Toa Rangatira website outlines the vision, mission and values leading their iwi organisation to support their iwi members to achieve their combined aspirations for their people and environment. "Ngā whāinga o Te Rūnanga - our purpose is to enhance the mana,

<sup>&</sup>lt;sup>23</sup> Ibid, pp. 24-30.

<sup>&</sup>lt;sup>24</sup> https://etuwhanau.org.nz/nga-hapu-o-otaki/

<sup>25</sup> https://etuwhanau.org.nz

wellbeing and prosperity of Ngāti Toa Rangatira iwi, hapū and whānau. We do this by empowering our whānau, reclaiming our iwi self-determination, revitalising our environment; through leadership, innovation, connectedness and exercising our rangatiratanga." <sup>26</sup> Values outlined on the homepage are:

**Ngāti Toa Rangatiratanga** - Revitalizing and strengthening our identity as whānau, hapū and iwi.

Oranga - Advancing the health and well-being of all Ngāti Toa Rangatira whānau.

Ohanga - Growing a sustainable economic base.

**Te Ao Tūroa** - Nurturing a resilient environment to sustain future generations.

Whai Mana - Building a strong organization founded on leadership and connection.

Ngāti Toa Rangatira amongst other important activities are planning to draw on history and kōrero tuku iho in 2022 to inform an iwi strategy moving into the future that adapts with climate changes. Last year they held Te Ara a Raukawa Moana Wānanga that were founded on learning about significant coastal heritage sites and histories, as well as the potential impacts of climate change. During the wānanga they released Te Ara o Raukawa Moana Active Kaitiakitanga in Response to Climate Change Research and Strategy and gained further iwi input into their strategic plans to enable active kaitiakitanga of their marine environment that responds to climate change. Already on the Te Rūnanga o Toa Rangatira Inc website they acknowledge the importance of cultural values (kaupapa) and historic lessons to guide their future.

"Ngāti Toa Rangatira are known for adapting and responding to change, our history tells us this. Our commitment to the ever changing Taiao is no different, Climate Change and Environmental Sustainability are both very important kaupapa which we aim to weave together and reclaim our connections with the Natural World. For many these connections need to be strengthened, by doing so we will strengthen ourselves and the environment. Our Climate and our Environment has been changing around us and is continuing to change. A lot of it was done in the name of progress, some with good intentions and some questionable, we now live with the consequences and have to clean up the mess. There is much to be learnt from our shared history and how we move forward together in restoring the balance. There will be both challenges and opportunities to learn and grow from each others experiences, we aim to start a series of wānanga to help us understand the capacity and capability of our iwi, this will help us better create education tools and resources if needed and establish a Ngāti Toa Rangatira Climate Change Strategy and Action Plan and a Ngāti Toa Environmental Sustainable Strategy."<sup>27</sup>

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<sup>&</sup>lt;sup>26</sup> https://www.ngatitoa.iwi.nz/

<sup>&</sup>lt;sup>27</sup> https://www.ngatitoa.iwi.nz/climate-change-sustainability

It is important to know that through Māori worldviews three realms exist simultaneously from three reference points Te Aro-nui (the physical realm), Te Ao Tua-ātea (the spiritual realm) and Tua-uri (the realm of mauri). Mauri is a significant cultural value. There is a direct vertical whakapapa link between every one of our Atua and everything that exists in our world including us. It is said that at birth the connection between the physical and spiritual realm is made. The strength of that connection is the first sign that mauri exists, if it is depleted, diminished, impacted or strong. The horizontal connection is in the inter-related connection or the whanaungatanga (the interconnectedness) of all living things to each other and that nothing in this world happens in isolation, but any change affects everything that is connected to it. It goes against a eurocentric notion of dealing with individual units. The traditional cultural practice of planting mauri could be relevant and incorporated into adaptation strategies in the future. Tamati Ranapiri a Ngāti Raukawa rangatira in 1872 detailed the concept in his transcripts.

"Ko te mauri he mana atua, he mana hei whakahua i te kai, hei pupuri i te kai, kei riro ki ētahi atu wāhi. Mauri ki uta, mauri ki te wai, ki ngā awa, ki ngā roto, mehemea he maunga kore manu, he ngahere kore manu, a he awa kore kai (ika, tuna, aha rānei) ka whakanōhoia he mauri ora..."<sup>28</sup>

Mauri is a divine authority derived from the Gods in order to nurture food resources in a particular area lest they go somewhere else. Mauri upon land, mauri upon water, rivers, lakes. If one has a mountain without birds, or a forest without birdlife, or a river without fish (fish, eels and so on) then a mauri ora is planted.<sup>29</sup>

Ngāti Raukawa informants explained to Elsdon Best that mauri, often in the form of a stone, was carefully concealed within a special place of the forest where it acted as a shrine or place for spirit-gods to care for the environment. Kaitiaki, sometimes a moko kakariki/green tree gecko or moko tapiri/tree lizard were present in the area. Other times the mauri was placed at famed bird-frequented trees. Elsdon wrote about other whakaara /charms or feathers that were also used to entice birds to those trees. Karakia /prayers were recited over the mauri stone to ensure the forest would be productive and ensure good luck.<sup>30</sup> Manaaki Tibble (Ngāti Raukawa) states that this particular cultural practice continues today. "Mauri stones are still blessed and returned to waterways to assist restoration of the creeks, streams, lakes and rivers."<sup>31</sup>

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<sup>&</sup>lt;sup>28</sup> Cited in Kereama, p. 26

<sup>&</sup>lt;sup>29</sup> Ibid, pp. 26-27.

<sup>&</sup>lt;sup>30</sup> Best, E., 1977, Forest lore of the Māori, p. 9. Cited in Teira, T., & Collins, H., 2022, Tararua Pae Maunga - Te Mana o Ngāti Raukawa Draft Report, pp. 72-3.

<sup>&</sup>lt;sup>31</sup> Kereama, p. 27.

# Historic Pā and Papakāinga sites

It is significant to note that from the arrival of our tūpuna in this district principal Pā sites and seasonal Papakāinga were established throughout the district. These numerous sites were strategically placed within our ancestral landscape. Many are unmarked today but known by elders and kaitiaki. The research team acknowledges that mana whenua at certain times kept and keep the exact location of significant sites and sacred sites a secret and at times historically informed researchers and writers, thus adding to the complexity to protect them. The following maps show approximate locations of significant sites to mana whenua within the Kāpiti Coast District from existing publications. As the seasons revolved so did their occupation of certain sites, and the more abundant the food sources were, the more jealously guarded each site became. Apart from these elements there was also care around location and positioning of the sites and an understanding of the nature of the elements and their possible impact on them and their survival.

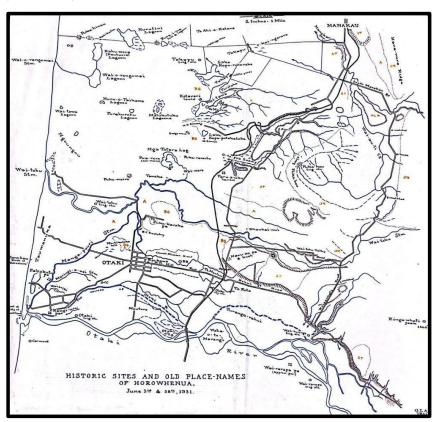


Figure 4: G. Leslie Adkin Map of Ōtaki region in 1931. (Source: Alexander Turnbull Library).<sup>32</sup>

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<sup>&</sup>lt;sup>32</sup> Adkin Album 13, PA 1-q-002-26-map Image opposite page 26.

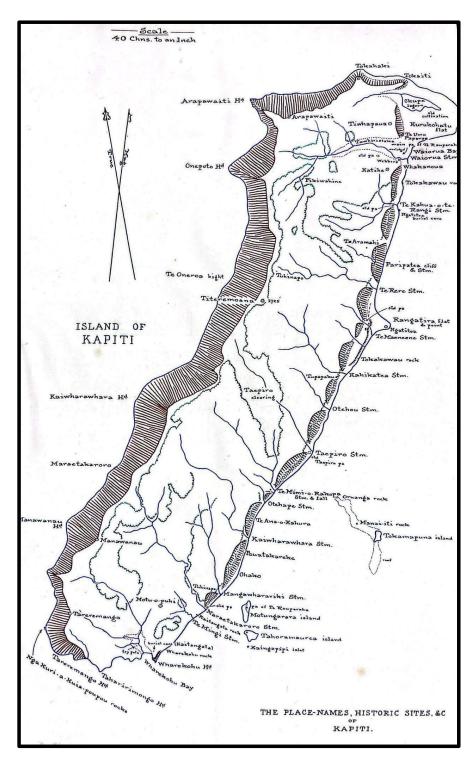


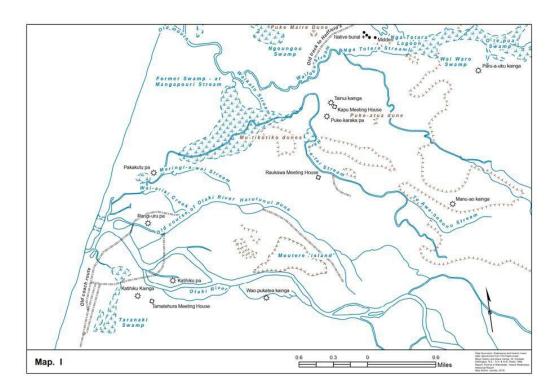
Figure 5: G. Leslie Adkin Map of Kāpiti in 1931. (Source: Alexander Turnbull Library).<sup>33</sup>

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 $<sup>^{33}</sup>$  Adkin Album 13, PA 1-q-002-11-map Image opposite page 11.

The following maps (Map I-III) are reproductions of George Leslie Adkin original maps produced in the 1948 publication 'Horowhenua: Its Māori Place Names and their Topographic and Historical Background' appendices. These were reproduced by Jacobs in colour for Inland Waterways Treaty Settlement research to support iwi, claimants and mana whenua in the Porirua ki Manawatū Inquiry district.<sup>34</sup>

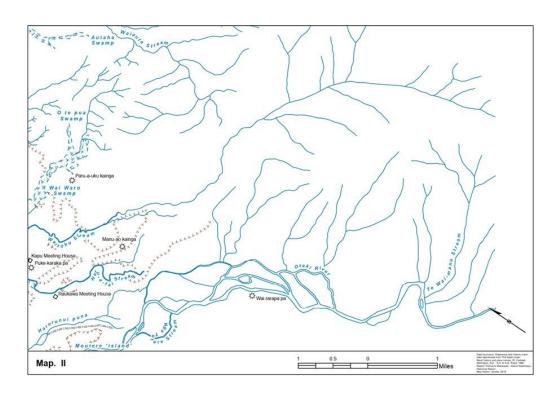


Map I: Coastal area at Ōtaki (Source: Reproduction of Leslie Adkin 1948 map).35

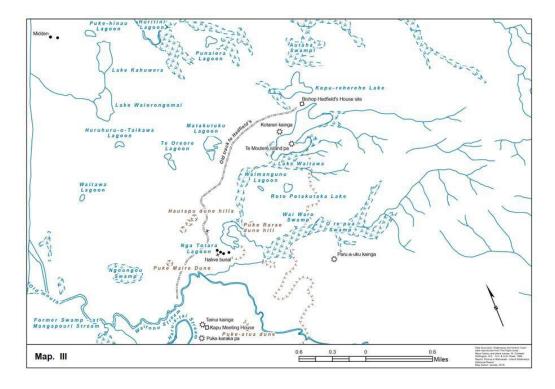
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<sup>&</sup>lt;sup>34</sup> Potter, H., et. al, pp. 658-661.

<sup>&</sup>lt;sup>35</sup> Ibid., p. 659.



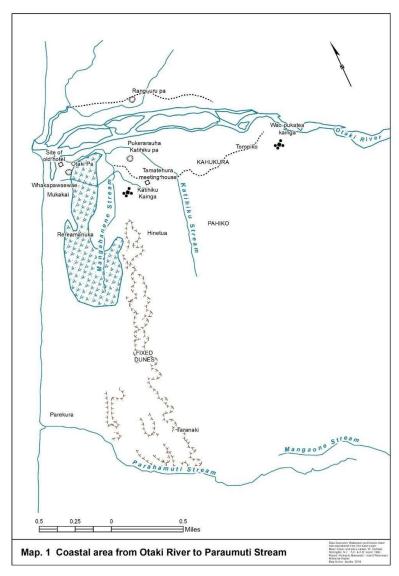
Map II: Historic inland area map of Ōtaki Gorge (Source: Reproduction of Adkin 1948)



Map III: Historic coastal map between Ōtaki and Waikawa. (Reproduction of Adkin 1948).

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The following maps (Maps 1 to 10) are from the 1966 publication 'The Kāpiti Coast: Māori History and Place Names of the Paekākariki-Ōtaki District' by Wakahuia Carkeek (Ngāti Raukawa, Ngāti Toa Rangatira). These were reproduced by Jacobs in colour for Inland Waterways Treaty Settlement research to support iwi, claimants and mana whenua in the Porirua ki Manawatū Inquiry district.<sup>36</sup>

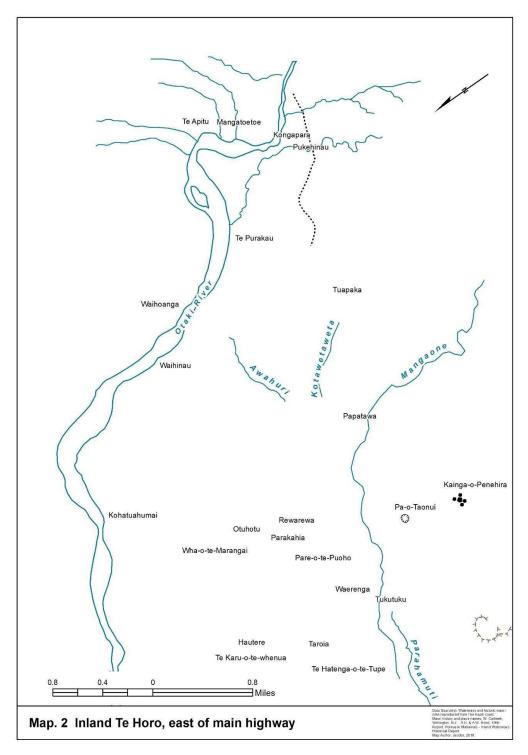


(Source: Reproduction of Carkeek 1966)37

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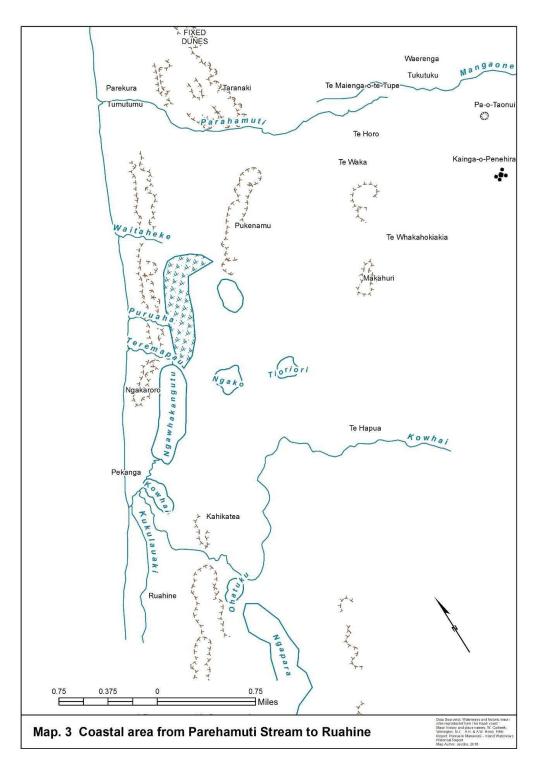
<sup>&</sup>lt;sup>36</sup> Ibid, pp. 671-681.

<sup>&</sup>lt;sup>37</sup> Carkeek, W., 1966, The Kāpiti Coast: Māori History and Place Names of the Paekākariki-Ōtaki District' by Wakahuia Carkeek.



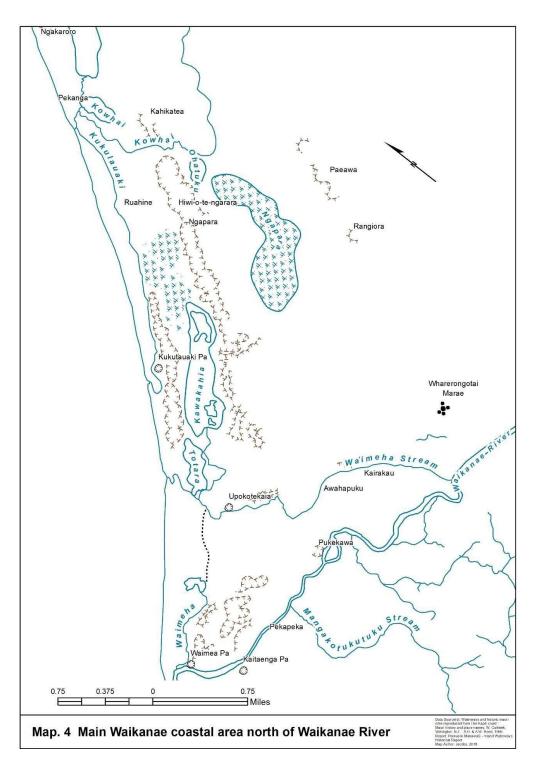
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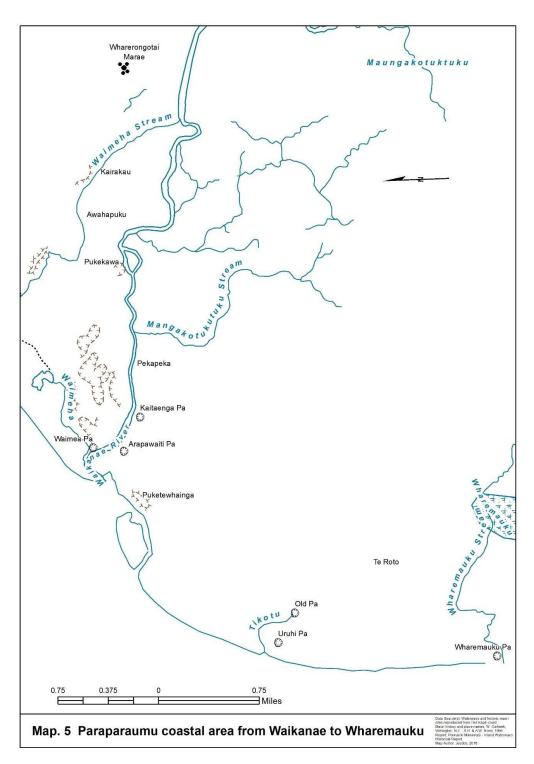
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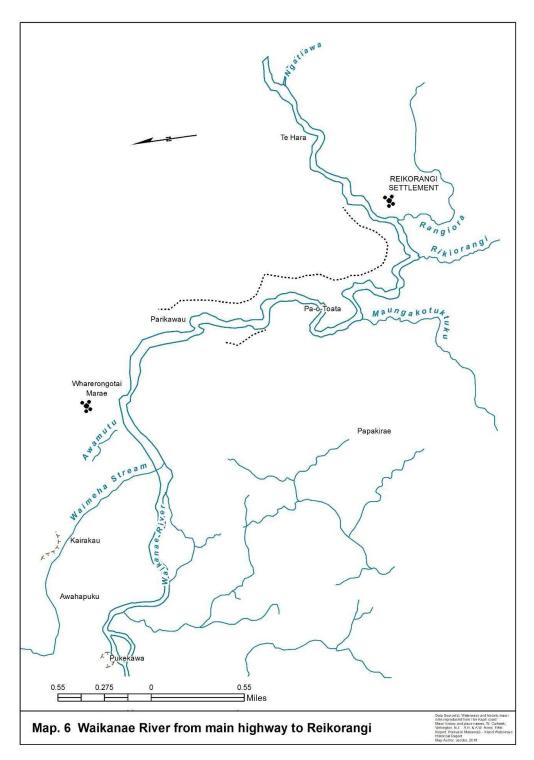


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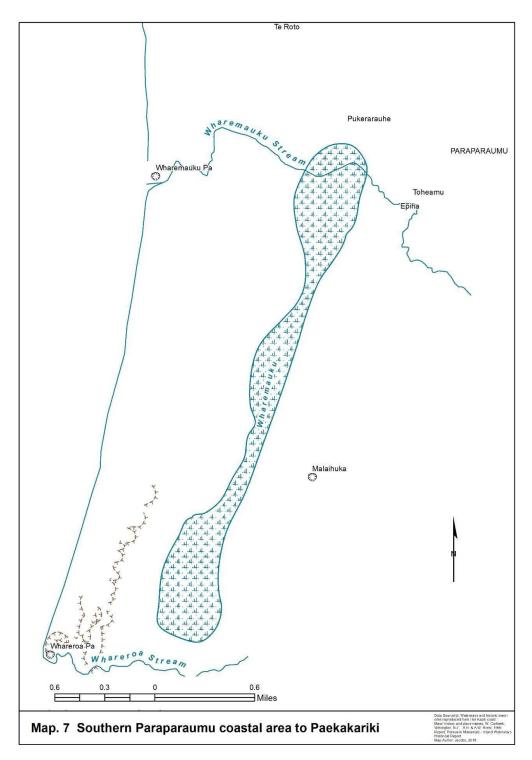
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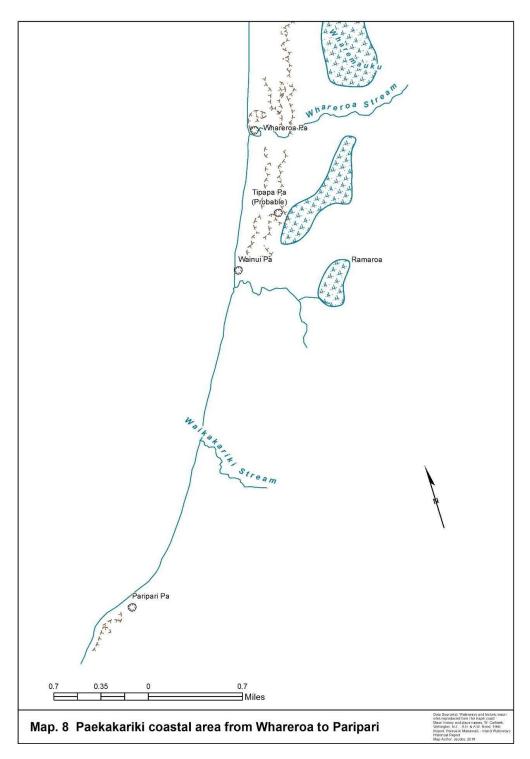
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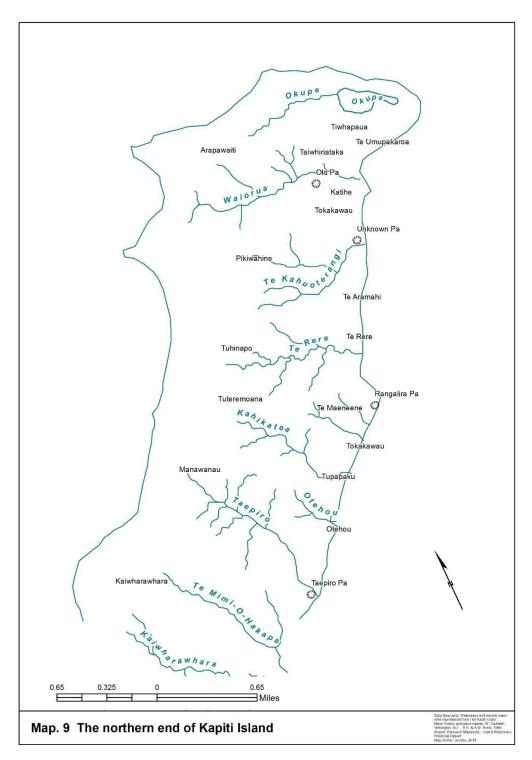
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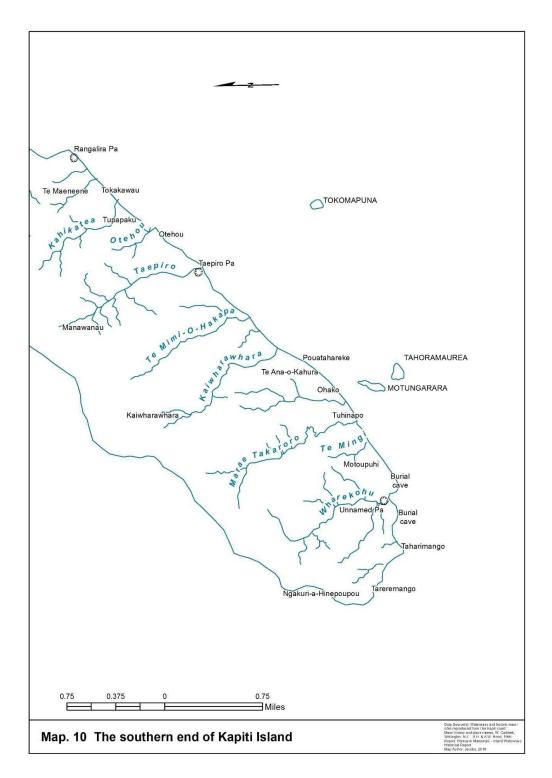
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Ngāti Raukawa once had a culturally significant pā site along the Kāpiti Coast coastal margin located at the mouth of the Ōtaki River on the northern edge. The historic scene was captured by an 1950 pencil sketch of Pakakutu Pā by William Swainson (see Figure 6). The Treaty of Waitangi was signed there in 1840. As whānau moved inland to the present site of Ōtaki township this pa site was abandoned between 1846-1848. Other historic pa sites in the near vicinity of the Ōtaki River mouth included the larger Rangiuru Pa inland near by and Katihiku Pa on the south side.



Figure 6: Pakakutu pā, Ōtaki, 1850.38

Ngāti Haumia a hapū of Ngāti Toa Rangatira within the Kāpiti Coast District have a long associated history with the Paekākāriki and Queen Elizabeth II Park region. Ropata Hurumutu a Ngāti Toa chief moved from Kāpiti Island to occupy Wainui Pā with Ngāti Haumia. Wainui and Whareroa in the Paekākāriki region remained important villages in the 1840s with 450 acres of surrounding land in cultivation. Wainui had 195 residents, 40 huts, with nine war canoes parked nearby. The populations declined in time however the Mira family remained on Wainui land and in 1938 Miriona Utu Mira (born 1893) was the last of her family to reside

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<sup>&</sup>lt;sup>38</sup> Swainson, William, 1789-1855. [Swainson, William], 1789-1855: Remains of Pakakutu, at the mouth of the Ōtaki River. 1850. [Swainson, William John], 1824-1887: [Sketchbook, ca 1850]. Ref: NON-ATL-0125-01. Alexander Turnbull Library, Wellington, New Zealand. http://natlib.govt.nz/records/22518460.

there where Queen Elizabeth II Park was later established. The Wainui Block was confiscated to erect a Marine Camp in 1942 yet Miriona and her family remained in the park until the mid-1950s. Treaty negotiations awarded a campsite within QEII to be reinstated in Ngāti Toa ownership. Miru Urupa sits above Wainui Stream and is of cultural significance. Ngāti Haumia are planning to establish a marae nearby.<sup>39</sup> The Wainui Stream is listed as a significant indigenous ecosystem with at-risk fish species such as: Kōkopu, Koaro, and Tuna. The stream is especially important culturally to Ngāti Haumia ki Paekākāriki as mahinga kai.<sup>40</sup>



**Figure 7:** Pukerua bay, by Samuel Brees. In the foreground a Māori family is crossing the Taua Tapu track, a Ngāti Toa Trail, and a few houses can be seen on the beach at Pukerua at the foot of the foreground hill. (Drawing source: Alexander Turnbull Library<sup>41</sup> and text source: Otaki Historical Society Historic Journal 2010.<sup>42</sup>)

### **Existing marae**

In comparison to our historic Pā only a few ancestral homes stand known as marae in our district, therefore their cultural value has the utmost importance. Along our coastline currently the most vulnerable marae to future climate impacts and sea level rise in this district is Katihiku Marae (see Figure 8), culturally significant to Ngāti Huia hapū of Ngāti Raukawa ki te Tonga. Katihiku Marae built in 1913, moved to its current site in 1923 (due to flooding), and renewed in 1933 is situated on the south side of the Ōtaki River mouth. Mana whenua are aware that it remains vulnerable to future flooding events, storm damage and sea level rise in the future.

<sup>39</sup> https://xplorepaekakariki.org.nz/early\_days/ngati-haumia/

<sup>&</sup>lt;sup>40</sup> Wainuiwhenua Working Group, 2019, Imagine Wainui Whenua - Paekākariki Community and Iwi proposal for the protection and development of Wainui whenua lands, waters and ecosystems consultation document.

<sup>&</sup>lt;sup>41</sup> Tiaki: E-070-019.

<sup>&</sup>lt;sup>42</sup> Otaki Historial Society, 2010, Volume 32, p. 9.



Figure 8: Katihiku Marae (Source: Katihiku weebly website)

# **PEPEHA**

Tainui te waka

Hinetu te maunga

Otaki te awa

Tuwhakahewa te hapū

Ngati Huia te iwi

Tamatehura te whare tupuna

Te Rongorito te whare kai

Katihiku te marae<sup>43</sup>

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<sup>&</sup>lt;sup>43</sup> katihiku.weebly.com

#### KATIHIKU MARAE

Whakapapa (Genealogy)

Tainui te waka

Hoturoa te tangata

Ko Hotuope

Ko Hotumatapū

Ko Mōtai Tangata Rau

Ko Ue Tapu

Ko Rakamamao

Ko Kākati

Ko Tāwhao

Ko Tūrongo te matua o Raukawa

Ka puta ki waho te tupuna Takihiku nana ko Tamatehura<sup>44</sup>

## "Tamatehura Meeting House, Katihiku Kainga

Tamatehura. Katihiku, Otaki. An old house with a pataka nearby.

In the days before Ngāti Toa's arrival in the district Katihiku, on the southern bank of the Otaki River close to the mouth, was said to have been a Muaupoko Pa. Te Rangihaeata of Ngati Toa launched an attack against this stronghold in the early 1820s and succeeded in taking it. He pursued some of those who escaped to the summit of Pukehou Hill close to the main highway a few miles south of Manakau. Here was another clash and the fiery Te Rangihaeata came face to face with the leader of the Katihiku garrison, the great Muaupoko chief Tanguru who was the father of Major Kemp.

<sup>44</sup> katihiku.weebly.com

According to Horomona Toremi, Katihiku was given by Te Rauaparaha to Ngāti Huia, a fighting tribe that sometimes took the field with Te Rangihaeata at their head. When Hector McDonald visited this place in 1847 he observed that Topeora (the sister of Te Rangihaeata) then lived at Katihiku, also Aperahama te Ruru, Pukehi (the father of Karanama), Pirimona, Te Tewe, Te Manahi, Te Manga (the sister of Rangitewhata) and others all of Ngāti Huia. (Ngakaroro 1874).

Some of the first Europeans to settle near Katihiku were the Kirks. Mrs Kirk gave evidence at the Ngakaroro hearing in 1874 concerning their residence there. "We rented a piece of land for several years at Katihiku from Topeora," she said. "Topeora and several others who are now dead lived there. Topeora was Rakapa's mother. I always understood that Topeora and Matene were the chief owners there." Mrs Kirk explained that although the majority of Ngati Huia never objected to their presence, they did have trouble with some of the Maoris led by a man named Parakaia. "They annoyed us by cutting down our fence, but Matene and Topeora asserted their influence and these people went away," she said. "Some years afterward we had a little more trouble from the same party." When Topeora died in 1865 the Kirks continued to pay their rent to Rakapa. According to Mrs Kirk, Topeora had offered the whole of the land from Katihiku to Waitaheke but it seemed to her that some of the inferior people were anxious to dispossess her. Topeora had at one time told Mrs Kirk that some of the Ngati Huia resided at Katihiku by her permission.

Adkin says that Katihiku was formerly situated on the southern side of the Otaki River about three-quarters of a mile from its mouth. "Changes in the course of the lower reaches of the river due to deforestation higher up caused the abandonment of the original site about 1902. By that time the original pa had become an ordinary kainga, and the river encroachment becoming too critical it was moved to its present position thirty chains to the south-west" (Adkin, 1948:179)

Katihiku was the last of the old kainga on the coast between Paekakariki and Otaki to be abandoned for a more Europeanised settlement. The last of the Ngati Huia families to occupy the old kainga moved across to a modern State housing area close to the Otaki township in the 1950s. At the present day only the meeting house called

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Tamatehura, and a few other small buildings survive. One of the old dwellings stands dilapidated and deserted, a pataka close to it now houses a few farmer's tools and the rest of the settlement is no more. Across the Whakapawaewae swamp on one of the low dune-ridges, could be seen about ten years ago the ruins of a small dwelling almost hidden among the encroaching lupins. This was once the home of an old tohunga named Tuauri. A few feet from his doorway and half buried in the sand was a large deposit of tuatua shells. A silver teaspoon a few inches below the surface of these shells is probable evidence of their having been associated with the Pakeha-type dwelling once used by the tohunga.

Tamati Hawea of Ngati Huia who still live[d] near Katihiku tells of the existence of a burial ground a short distance down from the front of the Tamatehura meeting house. It was completely washed away by the river some years ago and many human bones were exposed as a result. Tamati clearly remembered in his younger days the last interment that was made there. (Carkeek, 1966) It is not accessible by road and is a plain building with two windows and a central door. There are a few kowhaiwhai designs above the door and a pierced design on the amo tops. It is in good state and appears to date from the 1890-1900 period. (Cresswell, 1977)

Tamatehura meeting house. The assembly of the house of the present kainga of Katihiku on the south side of the Otaki River about 50 chains from its mouth. The hapu to which it belongs is the southern section of Ngati-Huia. The building is inscribed, "established 1913, renewal 1933", (the former date is about ten years after the moving of the settlement to its present site); its length is 45 ft. including the 6 ft. porch, and is 21 feet in breadth. There is no carving inside or out; the maihi are quite plain, and the tops of the amo are conventionalized to a debased pierced design. The rafters bear the only ornamentation present- tuhi scrolls of one pattern throughout. Tamatehura for whom the house was named, was an ancestor of the hapu; he was the son of Takihiku, and thus of the second generation from Raukawa. Huia, the eponymous ancestor of the hapu, was of the sixth generation from Ruakawa and the fourth from Tamatehura. (Adkin, 1948)<sup>245</sup>

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<sup>45</sup> https://horowhenua.kete.net.nz/item/842de057-d7df-46fa-acc1-8334f076bfa0

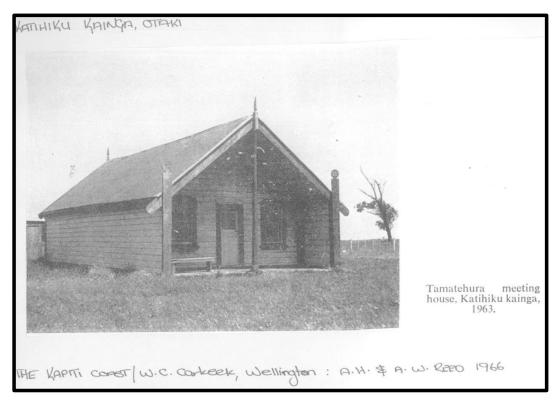


Figure 9: Katihiku Marae photo in 1963 (Source: Wakahuia Carkeek.)<sup>46</sup>

Katihiku Marae and Ngāti Huia have a wāhi tapu site at the south side of the Ōtaki River where a marking pou stood, named Te Pou o Mukukai. Te Waari Carkeek described the sacred site as a place to make offerings to atua. Mukukai is a taniwha that is important to the whole of Te Upoko o te Ika a Maui. Traveling throughout the ocean around the bottom of the North Island, it is also known to travel up major rivers, one narrative also tells of Mukukai going under the mountain ranges to the East Coast. This taniwha is one of many that reside in our district, they hold spiritual significance and often provide insights into ways to behave, signs to be wary of, or positive signs. Mukukai appears at times of abundance. Tamihana Te Rauparaha also referred to Mukakai as a canoe swallowing taniwha at the mouth of the Ōtaki River.

"Koia i tapa ai te ingo mo te puau o Otaki, he taniwha horo waka." 49

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<sup>46</sup> https://horowhenua.kete.net.nz/item/825cd07c-e737-4006-af5b-c9a5be5f1d5e

<sup>&</sup>lt;sup>47</sup> Moore, P., 2012, Te Pou o Mukukai, Wahi Tapu Project, WTS0055, Kāpiti Coast District Council. Cited in Teira, T., & Collins, H., p. 32.

<sup>&</sup>lt;sup>48</sup> Baker, 2019, Appendix B.

<sup>&</sup>lt;sup>49</sup> Calman, R., 2020, translation & editing of He Pukapuka Tātaku i Ngā Mahi a Te Rauparaha, Nā Tamihana Te Rauparaha, A Record of the Life of the Great Te Rauparaha, Auckland University Press. Cited in Teira T., & Collins, H., P. 32.



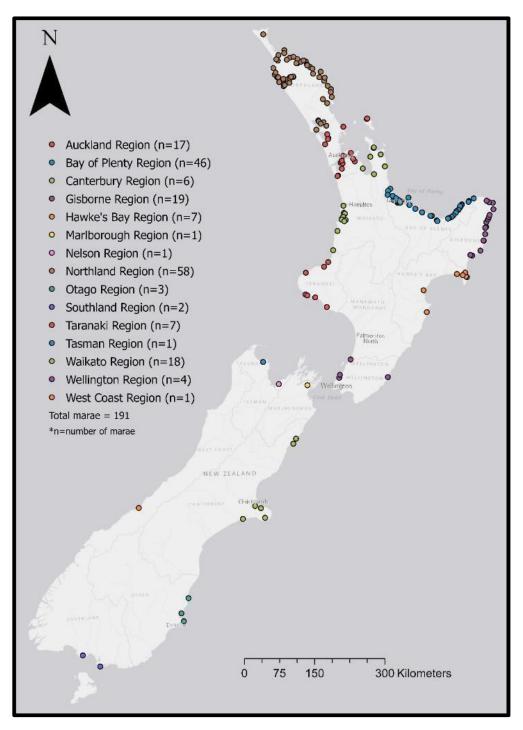
**Figure 10:** Aerial photo of the Ōtaki River mouth, 2020. (Source: Greater Wellington Regional Council)<sup>50</sup>

Akuhata Bailey-Winiata conducted his masters research and thesis with a strong science lense that touched on Te Ao Māori to analyze and produce a national map of coastal marae at risk of climate change impacts in the future. He stated that "historically, marae and their associated urupā are positioned along the low-lying coast, providing easy access to kaimoana (seafood), transport and trade. However, coastal marae and urupā are at an increasing threat of inundation and erosion from sea level rise, and will also be impacted by other effects of climate change such as drought and other changes to weather patterns such as storms. Many coastal marae and urupā are already experiencing the impacts of coastal flooding and erosion, however, little is known about the exposure of coastal marae and urupā to sea level rise nationally. He found through his research that 191 marae around the country are now at risk, of sea level rise, inundation, and flooding etc (Figures 11 & 12). Katihiku marae was the one marae that he identified as being at significant risk in this district (Figure 11). With further funding from the National Science Challenge Akuhata is now in his first year of carrying out doctoral research to assist marae and co-develop adaptation options with iwi, as well as develop a framework for the future that also contributes to decolonisation.

<sup>50</sup> https://www.gw.govt.nz/

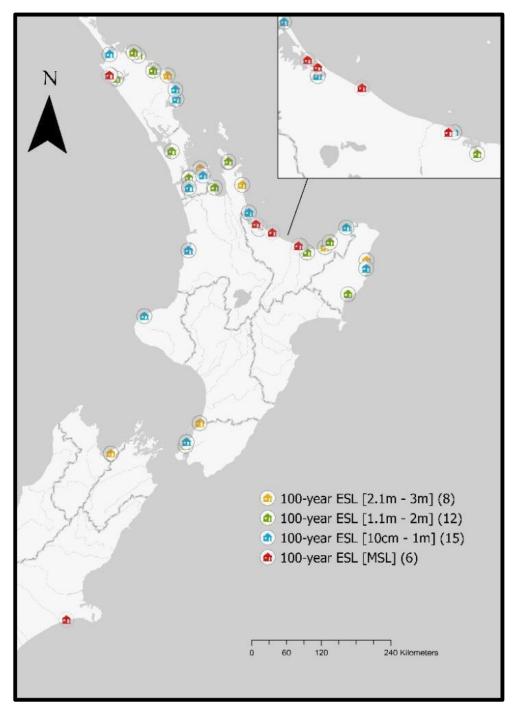
<sup>&</sup>lt;sup>51</sup> Bailey-Winiata, A., 2021, Understanding the potential exposure of coastal marae and urupā in Aotearoa New Zealand to sea level rise, p. v.

<sup>&</sup>lt;sup>52</sup> Ibid. p. v.



**Figure 11:** Map of coastal marae (< km to coast) around Aotearoa New Zealand classified by regional council and identified as at risk.<sup>53</sup>

<sup>&</sup>lt;sup>53</sup> Ibid, p. 42.



**Figure 12:** Map showing the number of coastal marae inundated by a 100 year extreme sea level event with an incremental rise of +1m in sea level. Katikihiku, one of the yellow marae.<sup>54</sup>

<sup>&</sup>lt;sup>54</sup> Ibid, p. 66.

Four further marae also of high cultural value to mana whenua are currently situated within the Kāpiti Coast District, two in Ōtaki (Te Pou o Tainui Marae, Te Marae o Hine, and Raukawa Marae), one in Waikanae (Whakarongotai Marae). In addition, a newly established marae has been erected in Paraparaumu by the community and Kāpiti College (Kāpiti Marae). Te Pou o Tainui Marae is surrounded with Māori owned blocks and whānau owned general land blocks that are subject to substantial flooding of the Waitohu Stream. Te Pou o Tainui Marae is shown in the KCDC flooding zones as borderline in current projects and could also be prone to future flooding events according to predictive assessments.<sup>55</sup>

Te Pou o Tainui Marae was established after Ngāti Kapu ancestors migrated from Wharepuhunga to Ōtaki around 1830. The naming of this marae was after a significant event. "The Kingitanga flag of Potatau was raised on the 'pou haki' on the pā on the 12<sup>th</sup> of March 1861." The Hauhau flagpole and a totara tree planted by King Tawhiao are significant within the landscape at Te Pou o Tainui. 57

The meeting house Kapumanawawhiti was built in 1910 (see Figure 13). Kapumanawawhiti was the Great great grandson of Raukawa and was the chief of the Ngāti Raukawa hapū Ngāti Kapumanawawhiti. His mother was taken as a slave and she uttered a whakataukī which warned her captors that a descendant of Motai would avenge her. So it was that Kapumanawawhiti later vanquished the iwi and rescued his mother. This meeting house still stands today and replaced the demolished house Te Kirima. The photo below of the Kapumanawawhiti wharenui was taken in 1967 (Figure 13).



Figure 13: Kapumanawawhiti wharenui in 1967 (SOURCE: KCDC Leonard Collection).<sup>59</sup>

The dining hall Mukakai was purchased in 1967 from the Wellington City Mission (Anglican) and named circa 1971. The name came from our tupuna Kapumanawawhiti's mauri. The name was given by Te Ouenuku Rene after consulting with our Ngāti Kapu relations in

<sup>&</sup>lt;sup>55</sup> https://maps.kapiticoast.govt.nz/LocalMaps/Viewer/?map=4ca9a2e98d134a749c8f4ee4c5f1170f

<sup>&</sup>lt;sup>56</sup> https://murau.wananga.com

<sup>57</sup> http://www.heritage.org.nz/the-list/details/7506

<sup>58</sup> https://murau.wananga.com

<sup>&</sup>lt;sup>59</sup> https://kapiticoast.pastperfectonline.com

Waikato. A local Kohanga Reo moved from Raukawa marae to Te Pou o Tainui in 1983, it is called Te Kōhanga Reo a Raukawa. In 1996 a building was brought from the Rāhui rugby clubrooms known as Whakapiri and placed next to the meeting house. The Kōhanga Reo operated out of Whakapiri until the new building was erected in 2018.<sup>60</sup>



Figure 14: Te Pou o Tainui, 2020. (SOURCE: Photo taken by Aroha Spinks)

Pukekaraka is 500m from Tainui Marae, established by Ngāti Kapu and the Marist Fathers in 1844.<sup>61</sup> Pukekaraka, also once known as Puke Karakia (hill of prayer)<sup>62</sup> is a place dedicated to Mary, a place of peace, a place of pilgrimage, a place of miracles. Ngāti Kapu created a place for Mary and they named it Te Marae ō Hine.<sup>63</sup> Services were held initially in a raupo chapel that unfortunately burnt down. The current complexes consist of significant cultural and historic structures including: Hine Nui o te Ao Katoa meeting house; Roma meeting house; St Mary's Church; the presbytery; the way of the cross; and shrines. St Mary's Church built 1858-1859 is considered New Zealand's oldest surviving Catholic Church still in use today. The Māori settlement around the mission had early success in European-style agriculture and supplied produce to the Wellington market.<sup>64</sup>

<sup>60</sup> https://murau.wananga.com

<sup>&</sup>lt;sup>61</sup> New Zealand Historic Trust, 2002. Cited in Barr, C., 2012, Peka Peka to Ōtaki Specialist Draft Report - Heritage and Archaelogy, p. 4.

<sup>&</sup>lt;sup>62</sup> Scadden, K., 2016, The Māori and the Marists. The Marist Messenger. (www.maristmessenger.co.nz)

<sup>63</sup> https://www.pukekaraka.com/history-1

<sup>&</sup>lt;sup>64</sup> Barr, C., 2012, Peka Peka to Ōtaki Specialist Draft Report - Heritage and Archaelogy, p. 4.



**Figure 15:** The meeting houses Hine Nui o te Ao Katoa and Roma, 2016 (SOURCE: Marist Messenger website)<sup>65</sup>

The re-erected Raukawa Marae was opened on the 14th of March 1936 in the center of Ōtaki township and on Ngāti Maiotaki whenua. A tohunga started the opening ceremony reciting karakia and the kawa, followed by a short explanation by Sir Aparana Ngāta who was largely responsible for the carvings and building of the meeting house, women crossed the threshold first in accordance to custom and then the Māori King Koroki blessed the whare, many chiefs and iwi representatives were in attendance. About 1500 Māori from Ngāti Raukawa, Ruanui, Atiawa, Ngarauru, Waikato, East Coast and others. The Prime Minister Bishop Williams, Mr Savage's Party that included the Minister of Lands, Hon. F. Langstone and Mr L. Lowry M.P. for Ōtaki were present also. It was one of the largest celebrations of its kind at that time. As the celebration continued a kuia (lady elder) led the men in a haka, she carried a mere glistening with paua shell in her hand. A young warrior, swung his taiaha aloft and led the ladies who sang, danced, and performed poi. The celebratory feast that followed included hangi, eels, fish heads etc.<sup>66</sup>

<sup>65</sup> https://www.maristmessenger.co.nz/2016/12/01/maori-marists-3/

<sup>&</sup>lt;sup>66</sup> Ōtaki Historical Society, 1980, Ōtaki Historical Journal, volume 3, pp. 45-49.

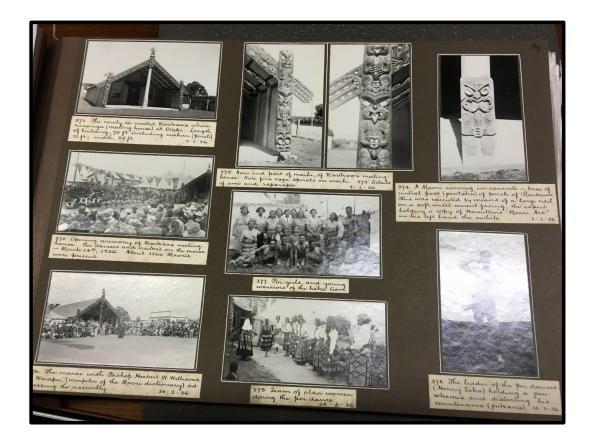


Figure 16: Photographs taken by Leslie Adkin, 1936 (Source: Alexander Turnbull Library).<sup>67</sup>

Raukawa marae is the principal ancestral home for hapū Ngāti Maiotaki, Ngāti Korokī, and Ngāti Pare (see Figure 17). The marae is also dedicated to the ART iwi confederation made up of Ngāti Raukawa ki te Tonga, Ngāti Toa Rangatira and Te Āti Awa. The whare tupuna is also named Raukawa. The marae connects ancestrally to the waka Tainui, the Tararua maunga and the Ōtaki awa.

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<sup>&</sup>lt;sup>67</sup> PAI-f-005.



Figure 17: Raukawa Marae, 2022 (Source: Photo taken by Aroha Spinks).

The newest marae in this district is Kāpiti Marae located at the Kāpiti College. It is the only marae in Paraparaumu (see Figure 18). The Whare Nui sleeps 30 people. The Kāpiti Marae is available for community and commercial groups to hire. This marae has cultural value and it provides a safe place to learn about, see and practice Māori culture, hear Māori language and is thus important to the community.



Figure 18: Kāpiti Marae (Source: Kāpiti College website).68

The Kāpiti College went on to also build a cultural centre Te Whare Ahurea was opened and named in May 2022 (this year) with staff, students and local iwi members. The Pou design created by Tracey Morgan at the front of the building has many meanings.

"At the bottom of the design, the triangle form represents a wharenui connecting the college with Whakarongotai marae. It sits at the base as tangata whenua, supporting the students from their first day at the college. The central space between the kowhaiwhai ascends from Papatuanuku to Ranginui, representing the journey that each student takes from junior to senior. The four college houses surround the central tukutuku pattern with the central placement representing the stone, or whatukura, which holds the power of knowledge and adds mana to the teaching of knowledge. At the top, the moving kowhaiwhai pattern represents the creative and cultural spirit that will occur in the building through the arts and show a playful sense of movement through cultural dance, music, performance and oratory expression. Kowhaiwhai are always mirrored to create a sense of place – balance and harmony in both the physical and spiritual realms, making the students feel at home." 69

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<sup>68</sup> https://www.kc.school.nz/school/k%C4%81piti-marae

 $<sup>^{69}</sup> https://www.nzherald.co.nz/kapiti-news/news/new-cultural-centre-blessed-at-paraparaumu-college/WHGW43EAZ5DIKYK6ZEJJWAAHSE/$ 



Figure 19: Te Whare Ahurea (SOURCE: Photo taken by Rosalie Willis, NZ Herald).<sup>70</sup>

The following map was produced for this report by Jacobs and illustrates the current location of marae within the Kāpiti Coast District.



Figure 20: Marae locations in the Kāpiti Coast District and proposed adaptation areas, 2022.

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 $<sup>^{70}</sup> https://www.nzherald.co.nz/kapiti-news/news/new-cultural-centre-blessed-at-paraparaumu-college/WHGW43EAZ5DIKYK6ZEJJWAAHSE/\\$ 

### Ancestral lands that remain in Māori-ownership

A number of iwi members remain of the opinion that all the land within the Kāpiti Coast District is Māori land. It is our ancestral lands that now exist with different ownership titles due to intentional mechanisms systematically installed and enforced by the Crown - our Te Tiriti o Waitangi treaty partner. Colonising methods were successfully implemented to strip us of our lands, resources, culture and language; these are being addressed in the current Waitangi Tribunal proceedings for the Porirua ki Manawatū Inquiry District which include the Kāpiti Coast District. Numerous research projects, resources, interviews and evidence from mana whenua have been submitted during hearings and continue to be addressed through settlement processes.<sup>71</sup> Land that still remains in Māori-land ownership title is scarce within this district and are thus of very high cultural significance (see the following figures produced by Jacobs). General title land owned by Māori have not been included.

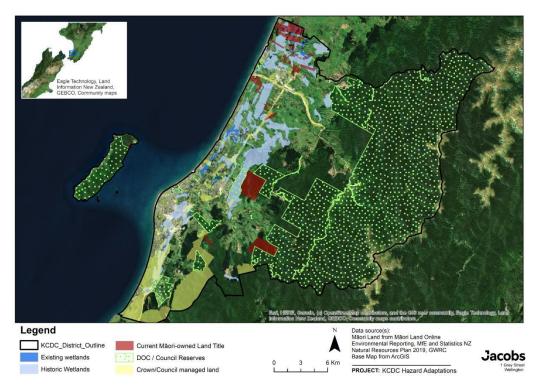
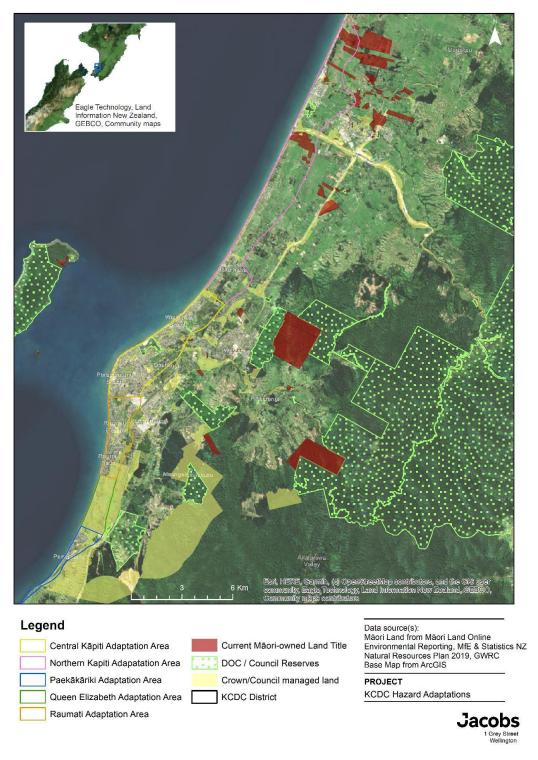


Figure 20: Ancestral Māori land ownership still in native title in the Kāpiti Coast, 2022.

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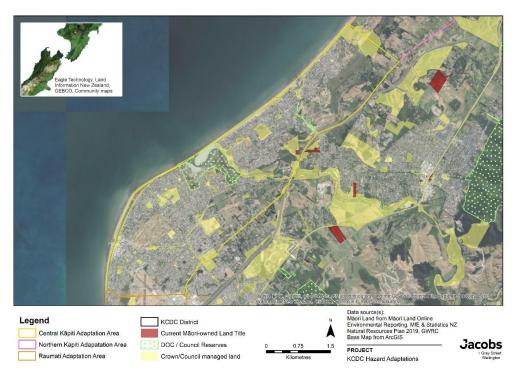
<sup>&</sup>lt;sup>71</sup> Bassett, H., & Kay, R., 2018, Public works issues report; Boast, R., & Boast, A., 2022, Ngati Raukawa and Affiliated Groups: Twentieth Century land Alienation and Administration; Luke, D., & Te Momo, F. (Eds.), 2019; Potter, et. al., 2017; Poutama, M., et. al., 2016, Porirua ki Manawatū Inquiry: Collation of Oral Narratives for Inland Waterways – Cultural Perspectives Report; Smith, H., 2016, Porirua ki Manawatū Inland Waterways Cultural Perspectives Report; Teira, T., & Collins, H., 2022; Wood, V., Derby, M., & Hearn, T., 2017, Environmental Issues report; Woodley, S., 2017, Porirua ki Manawatū Inquiry District: Local Government. Issues Report.



**Figure 21:** Ancestral Māori land ownership still in native title in the planned coastal adaptation areas, 2022.



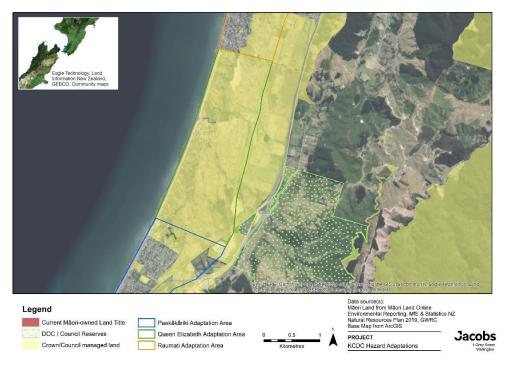
**Figure 22:** Ancestral Māori land ownership still in native title in the Ōtaki-Te Horo coastal adaptation area, 2022.



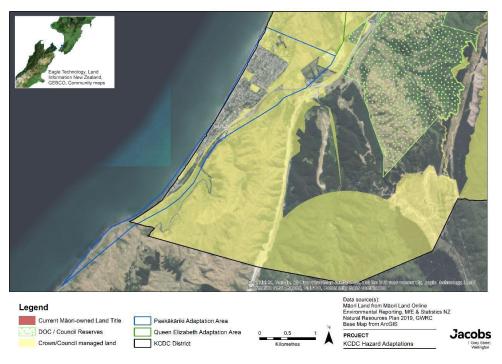
**Figure 23:** Ancestral Māori land ownership still in native title in the Waikanae-Paraparaumu coastal adaptation area, 2022.



**Figure 24:** Ancestral Māori land ownership still in native title in the Raumati coastal adaptation area, 2022.



**Figure 25:** Ancestral Māori land ownership still in native title in the Queen Elizabeth Park coastal adaptation area, 2022.



**Figure 26:** Ancestral Māori land ownership still in native title in the Paekākāriki coastal adaptation area, 2022.

### Mana Whenua Applications for Marine Coastal Areas in the Kāpiti District

In 2011 the Te Takutai Moana Act specifically addressed and provided for the legal recognition of Māori customary rights in marine and coastal areas, through either an agreement with the Crown or by order of the High Court. New Zealanders' rights to access beaches were not affected by this Act, except where conditions around wāhi tapu had been included in a government agreement or High Court order recognising mana whenua and their customary rights. Customary marine title does give certain rights though – for example:

- $\cdot$  the right to give or refuse permission for activities by others that need resource consents from local councils or permits
- · ownership rights over minerals other than petroleum, gold, silver and uranium
- · provisional ownership rights over taonga tūturu found in the area
- the right to be consulted when someone applies for a marine mammal watching permit. 72

Numerous applications of interest for customary title within the Kāpiti Coast District have been lodged under the provision for direct discussion with the Crown. This report as discussed earlier is focussed on two iwi (Ngāti Raukawa ki te Tonga and Ngāti Toa Rangatira) and thus their applications and associated maps are detailed below. Charles Olsen (Ngāti Raukawa) Senior Analyst – Kahui Takutai Moana at Te Arawhiti – The office for Māori Crown Relations informed our research team that they had begun engaging with Ngāti Toa Rangatira in 2022 due to their wide interest but had yet to engage with Ngāti Raukawa ki te Tonga. <sup>73</sup> Takutai Moana staff anticipate that they will run a series of wānanga throughout the region to initiate that engagement for the district in a matter of time. Other interested applicants within the region are listed on the Takutai Moana Act webpage (<a href="https://www.tearawhiti.govt.nz/te-kahui-takutai-moana-marine-and-coastal-area/">https://www.tearawhiti.govt.nz/te-kahui-takutai-moana-marine-and-coastal-area/</a>) Note: All maps below are only indicative guides to the application area describe, and do not necessarily show exact boundaries.

Te Rūnanga o Toa Rangatira lodged an application (#MAC-01-12-021) that covers a marine area alongside the bottom of the North Island and top of the South Island (see Figure 27). The application area for Ngāti Toa Rangatira is 12 nautical miles out from the following four points:

- a) The mouth of the Whangaehu River to the north-west;
- b) Turakirae Head to the east;
- c) The mouth of the Hokitika River to the south-west; and
- d) The mouth of Waiau Toa / Clarence River to the south-east.

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<sup>&</sup>lt;sup>72</sup> Ropiha, A., 2017, Assessment of Cultural Values Report Coastal Hazards Strategy 2021 Clifton to Tangoio, Mai Te Matau a Māui ki Tangoio, Prepared for the Hawkes Bay Regional Council, Napier City Council, Hastings District Council, p. 11.

<sup>&</sup>lt;sup>73</sup> Email Charles Olsen, 1 June 2022.

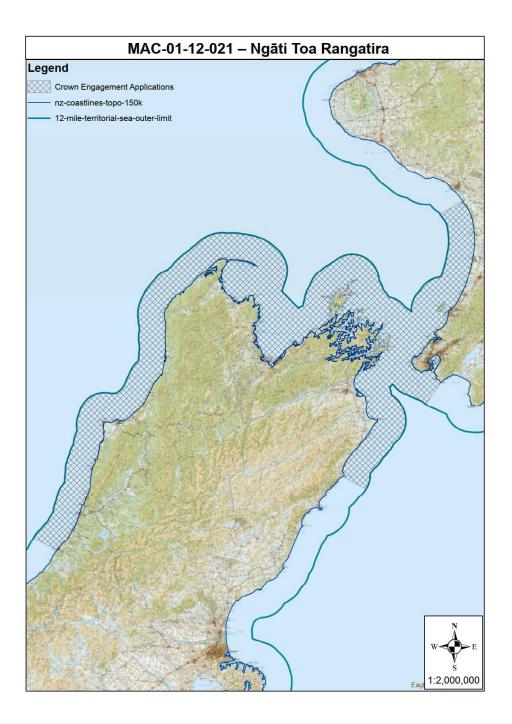


Figure 27: Ngāti Toa Rangatira marine coastal interest area.

Raukawa ki te Tonga Trust lodged an application (#MAC-01-11-019) covering the area from the mouth of the Rangitikei River, south to the mouth of the Kukutuaki Stream. With an exclusion zone around Hokio Stream mouth (see Figure 28).

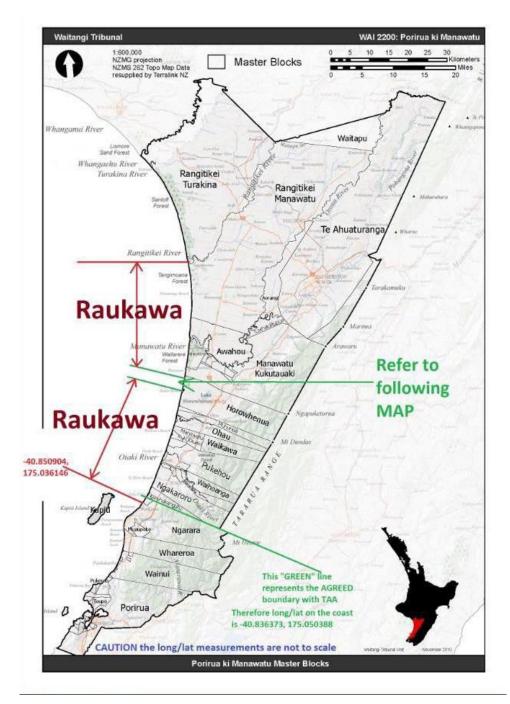


Figure 28: Ngāti Raukawa ki te Tonga marine coastal interest area.

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### Wāhi tapu and sites of significance

The issue of protecting wāhi tapu (sacred sites) has been ongoing and of considerable importance to all iwi. In 2019, Professor Whatarangi Winata as project supervisor submitted the Te Hono publication 'He Iti Nā Mōtai' a compilation of Waitangi Tribunal research for Ngāti Raukawa ki te Tonga claimants in the Porirua ki Manawatū Inquiry district and included hapū perspectives about the Ōtaki region. Within the document is an extensive array of historic facts, perspectives and kōrero tuku iho which included a mention of Ngāti Maiotaki wāhi tapu. Ngāti Maiotaki describes aspects of their wāhi tapu, producing the following map (Figure 29). Hapū members lamented about the numerous impacts of colonization and that included the major loss of land, all that remains within their ownership in Ōtaki and nearby is now culturally significant (see Figure 30). Maiotaki members retain shares in one of the blocks surrounding Kopureherehe (also known as Forest Lakes). Lake Waiorongomai and Lake Kahuwera are both sites of significance and wāhi tapu, however only Lake Waiorongomai remains in hapū ownership and is surrounded by a restoration project.

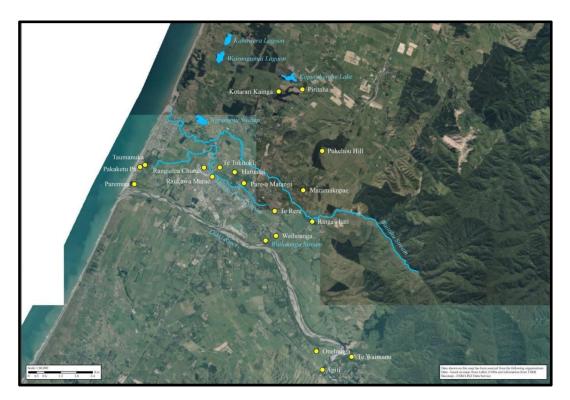


Figure 29: Ngāti Maiotaki sites of significance, 2019 (Source: Luke & Te Momo (Eds), 2019)<sup>77</sup>

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<sup>&</sup>lt;sup>74</sup> Luke, & Te Momo (Eds.), He Iti Nā Mōtai Volume 1, 2019.

<sup>&</sup>lt;sup>75</sup> Ibid, pp. 208-246.

<sup>&</sup>lt;sup>76</sup> Ibid, p. 241.

<sup>&</sup>lt;sup>77</sup> Ibid, p. P. 240.



Figure 30: Ngāti Maiotaki occupation in Ōtaki, 2019(Source: Reproduced by Jacobs)<sup>78</sup>

Lake Waiorongomai is a dune coastal lake remaining on Māori owned land that has a connection to the sea by the Waiorongomai Stream at the northern boundary of the Kāpiti Coast District. The lake is closely associated with Te Rauparaha and his Ngāti Toa Rangatira, Ngāti Raukawa and Te Ati Awa warriors who used this sacred place and its waters for ritual cleansing after battles. The oldest oral narrative that describes the naming of Lake Waiorongomai and other dominant Kāpiti Coast geographical features is passed down from Hau-nui-ā-nanaia a rangatira and tohunga of the Kurahaupō waka. As Hau-nui-ā-nanaia

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<sup>&</sup>lt;sup>78</sup> Ibid, p. 243.

<sup>&</sup>lt;sup>79</sup> Spinks, A., 2018, Restoring the mauri of coastal dune lake ecosystems: The case study of Lake Waiorongomai, Ōtaki Aotearoa / New Zealand, p.67.

travelled from Whanganui along our coastline prior to the ART confederation iwi arriving and he named waterbodies – such as Ōtaki (the holding out of a staff), Waimeha (the waters beyond were lost in the sands). <sup>80</sup> From the mountain ranges he is said to have named Lake Wairarapa (water of a flashing glance). Te Waari Carkeek (Ngāti Raukawa, Ngāti Toa Rangatira) continues the Ngāti Raukawa perspective narrative.

"Hau-nui-ā-naia being exhausted from his hasty journey took advantage of a passing comet and after the appropriate karakia and incantations caught the comet heading back up along the Kāpiti Coast. From the comet as he gazed down on the land and coastal waters he witnessed a lot of flotsam and jetsam at one location which is known as parapara to Māori and the coastline was in the shape of an 'umu' a cooking put and thus he named the area Paraparaumu. Just after Ōtaki the tohunga's cloak caught on fire from the comet so he jumped off, throwing the cloak to the ground. The place where the cloak landed created Lake Kahuwera, named from the 'cloak-kahu' being 'hot-wera'. The comet crash landed at this place [Lake Waiorongomai]."81

The Lake Waiorongomai 10 Trust, Waiorongomai 1A Trust, surrounding Māori owned land blocks, Ngā Hapū o Ōtaki and hapū/whānau members embarked on a restoration project in 2013. Receiving significant funding and support from Greater Wellington Regional Council, KCDC, Ngā Whenua Rāhui and Taiao Raukawa Environmental Research Unit saw the lake and stream protected with fencing and thousands of native wetlands plants placed into the whenua. An accompanying doctoral thesis documented and analysed the six-year hapū-led, iwi and community-supported, kaupapa-Māori-based project that resulted in the transformative change of this dune lake ecosystem (which included people). Notably the restoration efforts had positive effects on physical, cultural, social, psychological and spiritual wellbeing. Reconnection of whānau and hapū members during winter planting, workshops and restoration activities were uplifting to participants of all ages from Kohanga Reo babies to elders. Threatened species were observed such as raoriki (swamp buttercup), matuku (bittern), kotuku ngutupapa (royal spoonbill), kotuku (white heron), parera (grey ducks), weweia (dab chicks) and puweto (spotless crake). Taonga species inanga (whitebait) and watercress were found during the ecological monitoring as increasing in abundance. Hapū members expression of kaupapa and tikanga were crucial in generating initial lake ecosystem wellbeing improvements including the enhancement of mauri.82

Te Waari Carkeek described during a Waitangi Tribunal Hearing the strong connections between Ngati Toa, Ngati Raukawa and Āti Awa ki Whakarongotai within our district. In his speech he also identifies cultural sites of value such as Rangiatea Church, the Ōtaki Māori Race Course, Raukawa Marae, the grounds of kohanga, kura and Te Wānanga o Raukawa. The sacredness and sharing of certain knowledge is touched on as well in this quote below.

"The development of major institutions like Rangiatea Church in 1849 and the replication project of Rangiatea church today is evidence of this ongoing relationship.

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<sup>&</sup>lt;sup>80</sup> Davis, 1990, pp.66-7.

<sup>&</sup>lt;sup>81</sup> Spinks, pp. 66-7.

<sup>82</sup> Spinks, pp. i-iv.

Further examples such as the Otaki Maori Racing Club in the 1890s and building of Raukawa whare tupuna in 1936 support this relationship. The tribal development programme, Generation Two Thousand, 'Whakatupuranga Rua Mano' which ran from 1975 to 2000, and the development of Te Wananga o Raukawa the first recognised Maori Tertiary Institution which first commenced in 1981 were combined tribal activities. All of these things have been groundbreaking examples of what the combined efforts of our peoples can achieve. We have coined the acronym (A.R.T.) which stands for Awa, Raukawa and Toa and demonstrates the contemporary kotahitanga (togetherness) of our three iwi in particular. All of our relationships between our three tribes (A.R.T.) and many other tribes are held with our collective tribal memory bank. That bank is the repository of this knowledge, traditionally they were our kaumatua. However, for today's generation our knowledge is combined with our tribal development. Hapu and tribal archives are a necessity as we move into a knowledge economy. As more manuscripts, whakapapa, waiata and stories come to light this storehouse of knowledge is becoming more apparent and the maintenance and care of those taonga more important. As many of us know, some of that information is not for general distribution and is of such a highly sensitive nature that it is only discussed by the parties it concerns. I have shared with the tribunal today that information which our family deemed appropriate to bring to this gathering but there are specifics about our tupuna which will never be shared in a forum such as this."83

The Kāpiti Coast landscape has been shaped by an incredibly rich mana whenua history. According to George Leslie Adkin, there were over 500 wāhi tapu<sup>84</sup> sites on the Kāpiti Coast alone.<sup>85</sup> A large number of heritage and sites of significance to mana whenua remain registered with KCDC.

### **Kapiti Coast District Council Operative District Plan 2021**

The following historic heritage sites and sites of significance identified by our research team as of cultural value in the Kapiti Coast District Council Operative Plan 2021 are outlined in the tables below. <sup>86</sup> This list is not exhaustive and further sites are subject to inclusion as District Plans are subsequently updated.

<sup>83</sup> Waitangi Tribunal, Wai 207 & Wai 785. Brief of evidence of Te Waari Carkeek, 9 June 2003.

<sup>&</sup>lt;sup>84</sup> The term wāhi tapu refers to sacred sites of significance to Māori and are often associated with birth, death, rituals, ceremonies, old battles, pā or kainga.

<sup>85</sup> Adkin, G., 1948, Horowhenua - its Māori place-names and their topographic and historic background , p. 1.

<sup>&</sup>lt;sup>86</sup> Kāpiti Coast District Council Operative Plan 2021, Part 4 – Appendices/Schedules <a href="https://eplan.kapiticoast.govt.nz/eplan/#Rules/0/246/1/0/0">https://eplan.kapiticoast.govt.nz/eplan/#Rules/0/246/1/0/0</a>

# Kapiti Coast District Council Operative Plan 2021 - Schedule 7- Historic heritage<sup>87</sup>

Historic Places, including buildings and structures (and surroundings/setting, if applicable). Including commercial *buildings*, industrial *buildings*, residential *buildings*, public *buildings*, recreational structures (e.g. gazebos), *infrastructure*(e.g. bridges), memorials, retaining walls, etc). The column "Other Identifiers" includes, where available, the Heritage NZ register number ("HNZ###"), the NZ Archaeological Association site number ("NZAA###"), and GPS coordinates ("GPS###").

<b>B1</b> 4099	Ōtaki Railway Station	Arthur St, Ōtaki	SO 13765 Railway land	Originally constructed in 1911. Exterior is a fine example of	Cat. 2
			Lot 1 DP 88386 (CT WN55D/455) and Pt Te Awaroa 12A (CT WN55D/456), Wellington Land District	the work of George Alexander Troup (1863-1941).	

<sup>87</sup> Kapiti Coast District Council Operative Plan 2021, Part 4 – Appendices/Schedules https://eplan.kapiticoast.govt.nz/eplan/#Rules/0/246/1/0/0

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B2	4100	Pukekaraka Presbytery	2-4 Convent Rd, Ōtaki	Pukekaraka 5 ML 401 Pukekaraka No 5 Lot 1 Pt Lot 2 DP 1660 & Lot 1 DP 44700	The third Pukekaraka presbytery to be built on this site. Constructed in 1897.	Cat. 2
В3	4701	St Mary's Church (Catholic)	2-4 Convent Rd, Ōtaki	Pukekaraka 5 ML 401 Pukekaraka No 5 Lot 1 Pt Lot 2 DP 16604 & Lot 1 DP 44700	St Mary's Church, Pukekaraka, built in 1858-1859, is considered to be New Zealand's oldest surviving Catholic church still in use.	Cat. 1
В9	4098	Ōtaki Children's Health Camp Rotunda	Health Camp Rd, Ōtaki	SO 20565 Appt of Sec 5, Pt Sec 18 Blk VIII		Cat. 1
B10	4096	Māori University	Tasman Rd, Ōtaki	Waitohu SD Pt 4 DP 3364		Cat. 2
		Building (Te Wānanga-O-Raukawa College)	,	Pt Lot 3 8 DP 12156 Lot 6 DP 12156		

B11	4103	Te Rauparaha Memorial & Jubilee Memorial Monument	cnr Te Rauparaha & Hadfield Sts, Ōtaki	Pt Mangapouri Māori Reserve ML 5304	Cat. 1
B13	4968	Māori School (next to Rangiatea Church site)	Te Rauparaha St, Ōtaki	Pt Church Mission Grant MI 461 Pt Lots 1, 7 DP 21156 Pt Piritaha No.4	Cat. 2
B38		Mill stones	20 Tasman Road, Ōtaki	Lot 1 DP 20769 and Pt 1 Taumanuka ML 1507	

B69		Coaching stables	282 Rangiuru Rd, Ōtaki	Lot 3 DP 7938	Built 1858-60 - currently car repair business.	
B78		Maketu's grave	Kauri Rd, Waikanae	Lot 54 DP 14131	1889	
B95	7342	The Whare, Kapiti Island.	Kapiti Island	Sec 3 Blk I Kapiti SD SO 28650	The Whare is the oldest wooden building on Kapiti Island. It was home to Richard Henry, a flora and fauna caretaker on Kapiti Island.	Cat. 2
B96	7662	Te Kahuoterangi whaling station, Kapiti Island	Kapiti Island	Sec 3 Blk I Kapiti SD SO 28650	Collection of house sites, collapsed chimneys, hearths, a	Cat. 1

				tri-pot stand (or oven) and a grave. Built prior to 1839.	
B100	Bevan Homestead	24 Domain Road, Ōtaki.	LOT 1 DP 49555 C/T 20A/569	Built 1897-8, early settlers of Ōtaki. Accompanies large Pohutukawa tree.	
B108	Early Settlers Cottage	Te Waka Road, Te Horo (land between 57 and 91)		Known as the Whalers Wife's house. May be the oldest structure in the District. Rare example of board and batten construction with timber shingles, sawn totara cladding.	
				Washhouse contains Original copper. Māori Trust owned land, no public access without consent	

## Historic Places, including sites (and surroundings/setting, if applicable) UI Other **Legal Description Description/** HNZ Name Address **Identifiers** Significance Category or Contributory Places Archaeological Sites (some buildings and structures listed above may also be archaeological sites) B12 Site of the Rangiatea 33 Te Rauparaha St, Pt Church Mission Church Ōtaki Grant ML 461 B19 6140 Cat. 2 3 Kumera Pits Paekākāriki Pt Lot 2 DP 4269 Blk IV, Paekākāriki SD

B25	Bishop Hadfield Church Site	14 Mazengarb Road, Paraparaumu	Lot 39 DP23764			
	sattlefields, locations of important even of scientific value e.g. palaeontological		ning sites, boundary m	arkers, coastal	defences, parks and g	ardens,
B51	Radar Station site	Top of Paekākāriki Hill Road	Railway land	1942; Radar lookout	rotating block and	
B70	Historical Site	SH1, Pukehou Hill	adjacent Lot 1 DP 54714	overnight ca	d showing site of amp of Mua Upoko a Te Rauparaha	
B71	Historical Site	133 Te Waka Road, Te Horo	adjacent Lot 1 DP 62630	Sign depicti Haowhenua	ng site of Battle of	

B92	Cemetery	Manly Street & east of Scientific Reserve	Pt A80C Ngarara West ML 4533		
D107	Norther Tric Program	Consideration	(L + 104 DD9(C10)	Contain Contain Survey	
B107	Ngatoto Trig Reserve (landform)	Council Recreation Reserve Paraparaumu. Between, 31 Crown Hill and 81 Realm Drive	(Lot 104 DP86619)	Contains Geodetic Survey Point "A3DC Ngatoto". Name given by Mere Pomare at the 1890 hearing of Ngarara referring to it as 'Ngatoto-o- Wi-Kakapu'. Known as a cultivation area and an eel weir being nearby. Lookout point.	
B119	Women's Suffrage Garden	Kapiti Women's Centre, 7 Ngahina St, Paraparaumu	Lot 2 DP 64653	Listing including mosaic KWC sign, sun dial, suffrage centenary garden mosaic, blue	

# mosaic within paving, and mother and child sculpture. Historic Areas, including historic precincts and streets (and surroundings/setting, if applicable) UI Other HNZ **Legal Description** Description/Significance or Name Address **Identifiers Contributory Places** Category Convent Rd, Ōtaki Māori Burial Ground and old A14 Pukekaraka Pukekaraka 5 ML 401 Marae Site; Hene and Roma Conservation Meeting Houses; Presbytery; St Mary's Church; Cemetery; Area Stations of the Cross; Crucifix; Ōtaki Meeting House; Monument (marking site of old church)

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### Kapiti Coast District Council Operative Plan 2021 Schedule 9 - Sites and Areas of Significance to Māori<sup>88</sup>

Waahi tapu and Other Places and Areas of Significance to Māori (and surroundings/setting, if applicable) (including tauranga waka, historic marae, maunga, awa, mahinga kai, pā, midden, Māori archaeological sites). Explanation of waahi tapu and other places and areas of significance to Māori wāhanga.

Wāhanga	Туре	Key development Threats	Sensitivity to development	Desires level of protection
Wāhanga Tahi	Urupā (Māori burial grounds) and parekura (battlefield).	Land disturbance, earthworks.	High – sites are largely unoccupied/undeveloped.	High – rules intended to provide a high level of protection as there is a high risk land disturbance will encounter koiwi.
Wāhanga Rua	Urupā (Māori burial	Land disturbance,	Moderate – land is modified	Moderate – rules intended to

gro	Jrupā (Māori burial grounds), pā (village), papakāinga (place of ettlement).	Land disturbance, earthworks, construction of new buildings and alterations, additions and relocations of existing building, and network utilities.	Moderate – land is modified and currently occupied by residents and/or businesses.	Moderate – rules intended to allow for a reasonable level of development to occur provided land disturbance volumes are reasonably low and discovery protocols are followed.
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<sup>88</sup> Kāpiti Coast District Council Operative Plan 2021, Part 4 – Appendices/Schedules https://eplan.kapiticoast.govt.nz/eplan/#Rules/0/246/1/0/0

Wāhanga Toru	Urupā (Māori burial grounds), pā (village), taipā (sandhill), aituā (site of disaster/death), kāinga (village/settlement), niu/pou (pole, statute, monument), taumata (site of death of a rangitira), tauranga waka/ika (canoe), mahinga kai (traditional food gathering place), awa (river), papakāinga (place of settlement).	Land disturbance, earthworks, subdivision, construction of new buildings and alterations, additions and relocations of existing building, and network utilities.	Moderate – land modification and existing activities on the sites varies.	Moderate – rules intended to allow for a level of development to occur but retain controls on volume of land disturbance. However, there are tighter controls on the construction of new buildings and subdivision within the waahi tapu is actively discouraged to avoid 'division' of related features.
Wāhanga Wha	Marae (traditional meeting place)	Network utilities	Low to internal development, high from external threats.	Low - rules intended to allow for reasonable level of development within the site to support the ongoing functioning of marae.
Wāhanga Rima	Waahi Tapu Area	New buildings, large scale land disturbance, earthworks, subdivision	Moderate – land modification and existing activities on the sites varies.	Moderate – rules intended to allow for a level of development to occur but retain controls on volume of land disturbance.  However, there are tighter controls on the construction of new buildings and subdivision within the waahi tapu is actively discouraged to avoid 'division' of related features.

nore Cemetery	Type Urupā	Iwi Āti Awa	Key access and view points	Wāhanga Tahi
nore Cemetery	Urupā	Āti Awa		Tahi
atawhiti (Wi Te vha)	Urupā	Ngāti Raukawa		Tahi
ou 4B1 Urupā	Urupā	Ngāti Raukawa		Tahi
a Urupā	Urupā	Ngāti Raukawa		Tahi
anuka 3A Urupā	Urupā	Ngāti Raukawa		Tahi
	vha) ou 4B1 Urupā	ou 4B1 Urupā  Urupā  Urupā  Urupā	ou 4B1 Urupā Urupā Ngāti Raukawa  a Urupā Ngāti Raukawa	ou 4B1 Urupā Urupā Ngāti Raukawa  a Urupā Ngāti Raukawa

W/TCO192A	W-'	II.	N. 74' Dl.		T.I.:
WTS0182A	Waitawa Urupā	Urupā	Ngāti Raukawa		Tahi
WTS0183A	Pukehou Urupā 4C6	Urupā	Ngāti Raukawa		Tahi
WTS0193	Arapawaiti Cemetery Reserve	Urupā	Āti Awa		Tahi
WTS0214A	Maketū Urupā	Urupā	Āti Awa		Tahi
WTS0316A	Ruakohatū Urupā	Urupā	Āti Awa	Access from Elizabeth Street and Pehi Kupa Street between Whakarongotai Marae and Ruakohatū Marae	Tahi
WTS0386A	MacKay's Crossing Urupā	Urupā	Ngāti Toa Rangatira / Ngāti Haumia		Tahi

WTS0418A	South Paekākāriki Parekura	Urupā & Parekura	Ngāti Toa Rangatira / Ngāti Haumia		Tahi
WTS0577AA	Paekākāriki Urupā	Urupā	Ngāti Toa Rangatira/ Ngāti Haumia	views and access to Kāpiti and towards Pukerua Bay.	Tahi
WTS0578C	Wainui Urupā	Urupā	Ngāti Toa Rangatira / Ngāti Haumia		Tahi
WTS0587	Whareroa 2C Urupā	Urupā	Āti Awa		Tahi
WTS0318	Taewapirau	Pā & urupā	Āti Awa		Tahi
WTS0318A	Taewapirau waahi tupuna	Waahi tupuna	Āti Awa		Rima

W4	Takamore Wāhi Tapu Area		Āti Awa		Rima
WTS0014	Hinetua	Taipu	Ngāti Raukawa	Access from Hinetua to Swamp Rd and Katihiku marae; Views in all directions	Toru
WTS0024A	Katihiku 1E	Aitua	Ngāti Raukawa (with associations to Ngāti Toa Rangatira)		Toru
WTS0024C	Katihiku Kāinga	Kāinga	Ngāti Raukawa		Toru
WTS0055	Te Pou o Mukukai	Niu / Pou	Ngāti Raukawa		Toru
WTS0056	Mūtikotiko	Puke & Urupā	Ngāti Raukawa		Toru

WTS0070	Ōtaki Pā	Pā (including Urupā)	Ngāti Raukawa (with associations to Ngāti Toa Rangatira)		Toru
WTS0101	Pukekaraka	Kāinga	Ngāti Raukawa		Toru
W 130101	Funckalaka	Kalliga	Ngati Naukawa		Toru
WTS0111	Rangiuru Pā (north)	Pā	Ngāti Raukawa		Toru
WTS0125A	Tararua Kāinga	Kāinga	Ngāti Raukawa	Views and access to Tararua Urupā	Toru
WTS0127B	Taumānuka 3F	Tauranga Waka, Tauranga Ika, Mahinga Kai	Ngāti Raukawa		Toru
WTS0137	Makahuri	Pā	Ngāti Raukawa		Toru

WTS0146A	Te Rauparaha Memorial & Jubilee Monument	Pou, memorial stone, monument, statue	Ngāti Raukawa	Views and access to Rangiatea Church.	Toru
WTS0154	Te Matenga o Te Tupe	Taumata (site of death of a rangatira)	Ngāti Raukawa (with respect of Āti Awa)		Toru
WTS0178	Waiorongomai Lake & Stream	Roto, awa & kāinga	Ngāti Raukawa		Toru
WTS0203	Kaitoenga Pā	Pā, fortified pā, village, settlement and cultivation ground.	Āti Awa		Toru
WTS0206	Kaiwarehou	Pā	Āti Awa		Rua
WTS0216	Mataihuka Pā	Pā (with kōiwi/burial site/s)	Āti Awa		Toru

WTS0364	Whareroa Pā	Pā & urupā	Āti Awa (with associations to Ngāti Toa Rangatira / Ngāti Haumia)		Toru
WTS0364A	Whareroa Kāinga	Kāinga	Ngāti Toa Rangatira / Ngāti Haumia (with associations to Āti Awa)		Toru
WTS0419	Paripari Pā	Pā	Ngāti Toa Rangatira / Ngāti Haumia	views to the south, west and north, including towards Pukerua Bay, Paekākāriki and Kāpiti Island	Toru
WTS0501	Rua Kumara (Paekākāriki Hill)	Rua	Ngāti Toa Rangatira / Ngāti Haumia		Toru

WTS0566	Тїрара	Pā/Kāinga	Ngāti Toa Rangatira / Haumia (with associations to Āti Awa)		Toru
WTS0578	Wainui Pā	Pā	Ngāti Toa Rangatira / Ngāti Haumia	views and access to Kāpiti Island.	Toru
WTS0024	Katihiku Marae	Marae	Ngāti Raukawa		Wha
WTS0361	Whakarongotai Marae	Marae	Āti Awa		Wha

The above KCDC tables have been turned into pictorial maps to highlight the sites of significance registered with the KCDC and the proposed Takutai Kāpiti adaptation areas (see following figures that were prepared by Jacobs for this report).

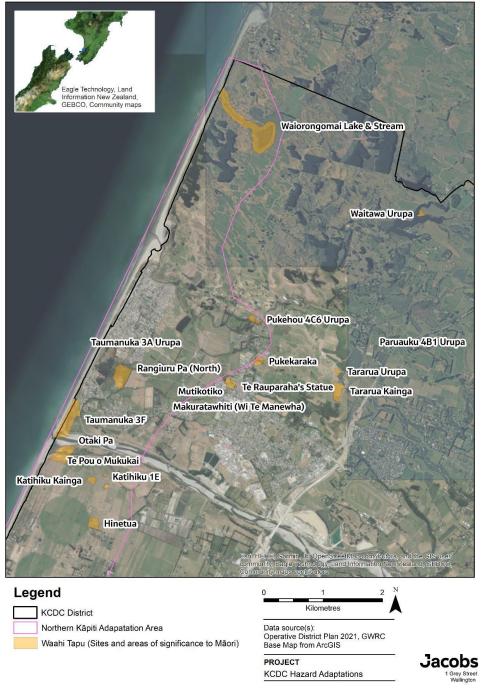


Figure 31: Sites of significance in the Ōtaki-Te Horo coastal adaptation area, 2022.

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Figure 32: Sites of significance in the Waikanae-Paraparaumu coastal adaptation area, 2022.



Figure 33: Sites of significance in the Raumati coastal adaptation area, 2022.



Figure 34: Sites of significance in the Queen Elizabeth Park coastal adaptation area, 2022.



Figure 35: Sites of significance in the Paekākāriki coastal adaptation area, 2022.

#### Our ancestral landscapes and waterscapes were once a thriving environment

Kōrero tuku iho/knowledge handed down speaks of a once thriving environment throughout this district, all was respected and valued. From the forests in the mountains, waterways teaming with life, a series of wetlands throughout the plains, at least two abundant harbors, coastal margins full with shellfish, an ocean with a myriad of species, and an island with rocky shores again abundant with different life forms. What remains of native ecosystems remains highly valued to mana whenua today. One early written record that describes our Kāpiti Coast environment is an ancestor to some Ngā Hapū o Ōtaki descendants, Thomas Bevan who travelled by foot to this district from Wellington. He described the beauty of the landscape which he refers to in his writings as having disappeared:

"Only those who saw the country in its virgin state can realise the prodigality of nature of the beauty that has forever passed away leaving in the settled districts not a trace behind. Mountains and plains alike were clothed with magnificent forest, abounding with bellbirds, pigeons and tuis, and vocal at sunrise with their music, while the beautiful lagoons swarmed with native ducks. The changes which have followed settlement on this island must have been seen to be credited. Since 1855 the woods have gone, and with them the teeming and beautiful bird and insect life to which they gave shelter."

Māori see "the whole ecosystem as an indivisible whole, and do not separate the physical and spiritual parts of inland waterways, nor do they isolate them from the surrounding land and life contained. Thus spiritual aspects associated with inland waterways and their mauri are very important to Māori. Some associated spiritual practices conducted by iwi and hapū within this inquiry district included pure, tohi rites, wai ora (water used for healing), wāhi whakawātea (water used to clear, free, dislodge, purge, get rid of, water used to restore spiritual and emotional well-being), wāhi whakahaumanu (place of healing and restoration)."90 All inland waterways and wetlands in the district are significant to mana whenua they were a vital resource: freshwater fish, waterfowl, and water-plants were food, fibre and medicine. Settlement patterns and seasonal movements were based around these waterways along with mahinga kai (food gathering areas). The waterways were more than just physical resources; they were the physical embodiment of ātua. 91 What little wetlands remain today should be protected and they also provide an insightful pattern for planners as they indicate areas that may once more become a waterscape within our district (see Figure 36).

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<sup>89</sup> Bevan, T., 1982, Reminiscences of an Old Colonist, in Ōtaki Historical Society Journal, volume 5, p. 86.

<sup>&</sup>lt;sup>90</sup> Personal Communication, Caleb Royal, 15 December 2016 as well as GWRC, 2015, pp. 292-93, 295-296, 298-299. Cited in Potter, et. al., 2017.

<sup>&</sup>lt;sup>91</sup> Smith, H., 2016, Porirua ki Manawatū Inland Waterways Cultural Perspectives Report. Cited in Potter, et. al., p. 381.

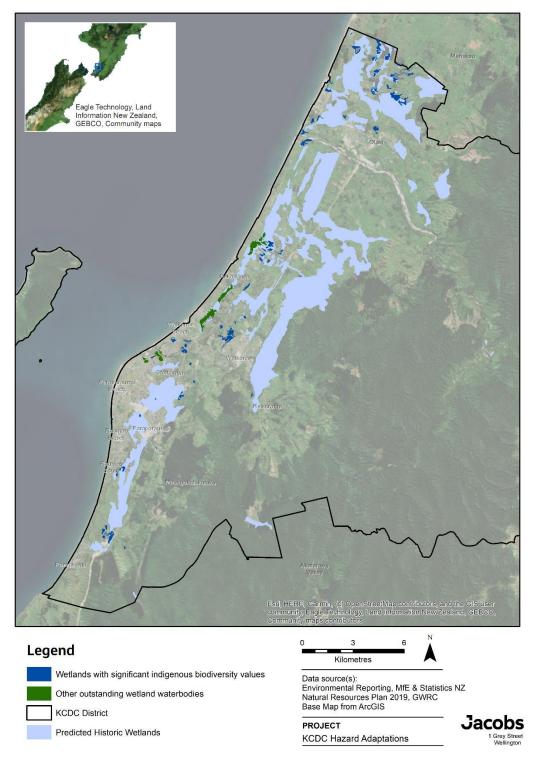


Figure 36: Historic and current wetlands within the Kāpiti Coast District.

With recent reports of increased ponding and soggy backyards combined with future climate change predictions that include increased precipitation, it is important to drill down to localised ares of historic wetlands that were highly valued by our Māori ancestors (see the following Figures 37-40 produced by Jacobs). Depicted in these maps are also the current wetlands of significance to mana whenua today.

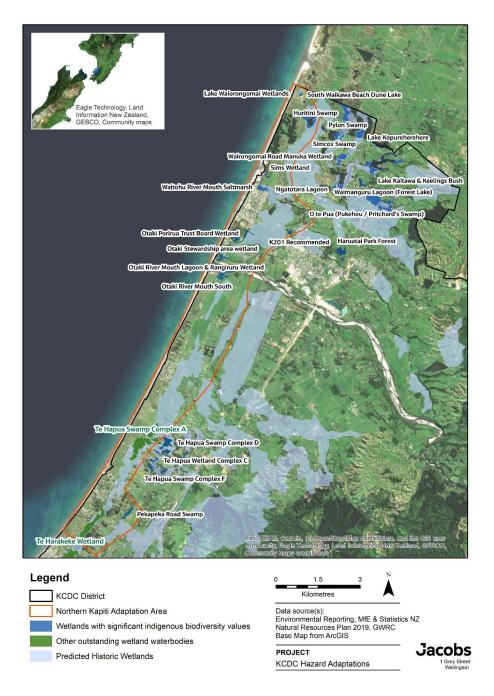


Figure 37: Wetlands in the Ōtaki-Te Horo coastal adaptation area, 2022.

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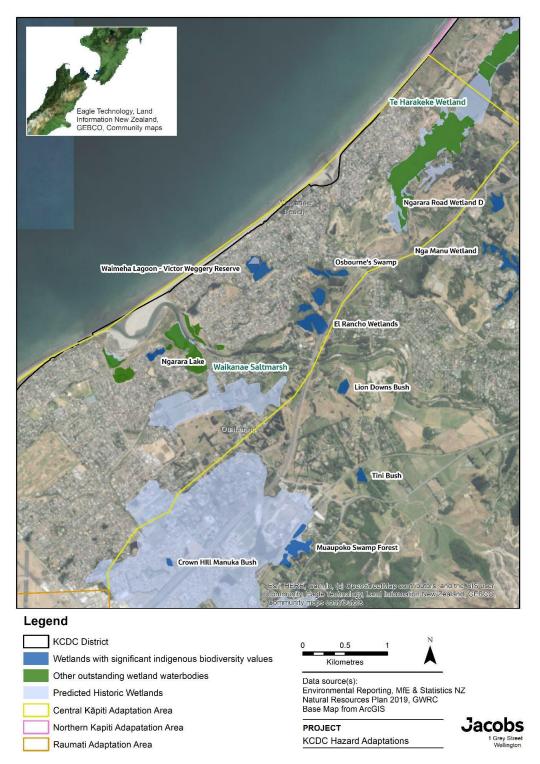


Figure 38: Wetlands in the Waikanae-Paraparaumu coastal adaptation area, 2022.

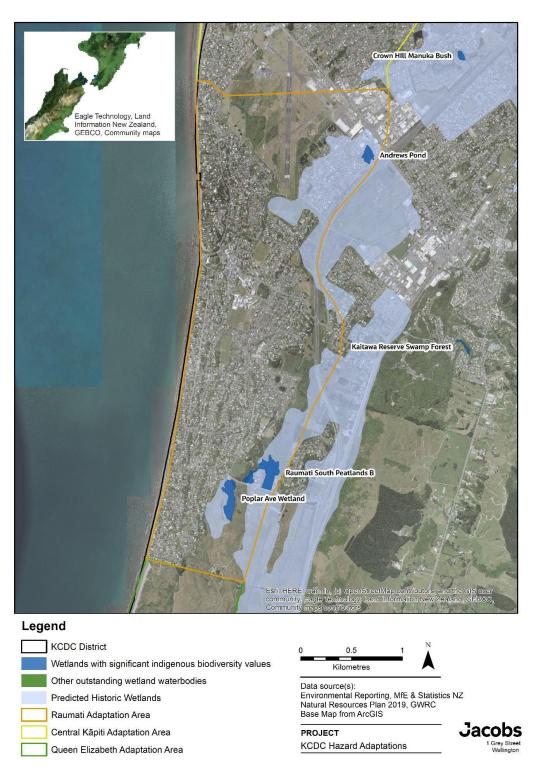


Figure 39: Wetlands in the Raumati coastal adaptation area, 2022.

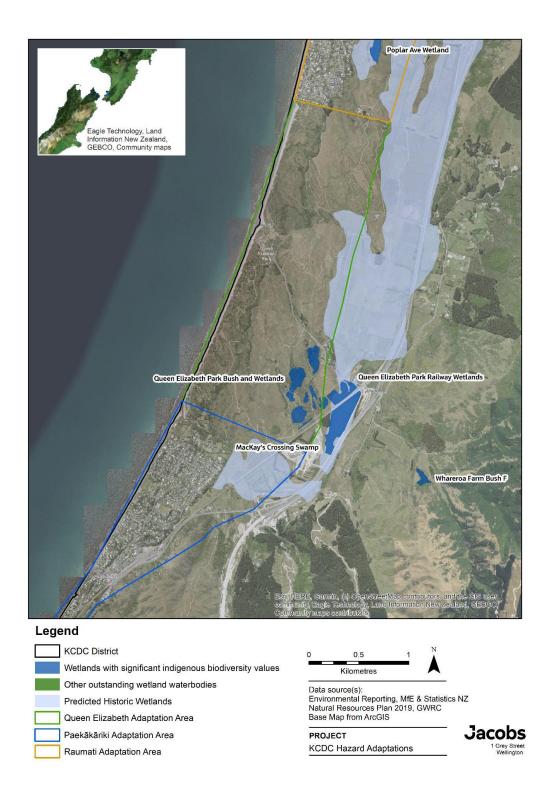


Figure 40: Wetlands in the QE II Park and Paekākāriki coastal adaptation areas , 2022.

Abundant healthy ecosystems were amongst other things also resources for many cultural traditions, including collecting kai. One of the earliest written records describing the abundance of birds within this district that made it onto serving tables for the fortunate who gathered to mark the special occassion of marriage between the son of Wi Parata Te Kakakura and the daughter of Hoani Taipua – Areta Hoani Taipua Te Puairangiriri, is documented and recited by Te Kenehi Teira and Heeni Collins (Ngāti Raukawa) in a recent draft report Tararua Pae Maunga – Te Mana o Ngāti Raukawa. The taumau/arranged marriage took place on the 13th of June 1876, and with over 600 people in attendance at Raukawa Marae. They feasted on 1 cow, 200 sheep, 86 seagulls, 50 geese, 72 chickens, 37 native ducks, 31 exotic ducks, 1000 Kereru/native pigeons, 491 Kāka/native parrots, 2412 tui, and 1 container of preserved tui, and many other foods which was described by the narrator as not possible to write. 92



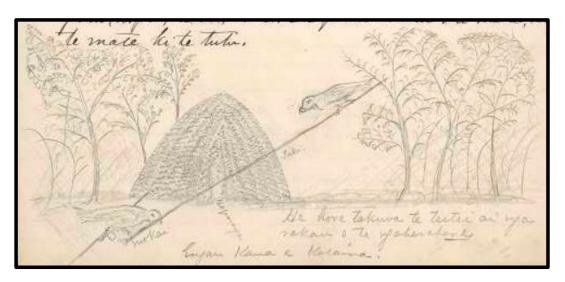
**Figure 41:** Ngāti Toa Rangatira inland waterway and riparian scene with Ponga and Rata etc by artist Charles Decimus Berraud, 1856 (SOURCE: Alexander Turnbull Library B-084-014).<sup>93</sup>

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<sup>92</sup> Teira & Collins, p. 73.

<sup>&</sup>lt;sup>93</sup> Cited in Fordyce, L., & Machlehn, K., 2000, *The Bay: A history of community at Titahi Bay*, Titahi Bay, p. 22. Source: Alexander Turnbull Library, Wellington, New Zealand. Full caption: Barraud, Charles Decimus, 1822-1897: Sketch of tree fern, rata &c. Valley of the Wainui-o-mata, Port Nicholson, New Zealand. 1856.. Ref: B-084-014. /records/22758789

Forests and bush areas in our district were and are still highly valued as carving resources, building materials and materials for garments. For example, Totara, Kahikatea, Mataī, Rimu for waka. Miro, Kahikatea, Whanake, Rata and Rewarewa are all trees of cultural value due to being associated with bird snaring. Harakeke, Kiekie and Pingao remain special plants for weaving. In addition to these for example, Raupō, Toitoi were used to create Manu aute (kites). Further native plants were essential for traditional clothing and construction, such as Harakeke, Tī Kōuka, Kiekie, Pingao. Kareao/Supplejack was traditionally used for tying things and the tips could also be eaten by people. Berries we ate included Karaka (fermented), Kōtukutuku/tree freschia, Hinau and Poroporo berries. For medicinal purposes Manuka and Kanuka cleared sinuses. Manuka also reduced pain, healed bruises and boken limbs. Kawakawa was used for urinary infections, infusion and poultices. Koromiko helped upset tummies. Ensuring these native plant species are included in climate mitigation plans will assist with carbon sequestration, support cultural values within the district, enable the continuation of cultural practices and facilitate the transfer of traditional Māori knowledge.



**Figure 42:** Bird snaring sketch by Tamati Ranapiri (Ngāti Raukawa) (Source: Alexander Turnbull Library 80-115-12/16).

Ngārara which include taniwha, tuatara, geckos skinks and insects have always had special connections to iwi. There are 126 lizard species in New Zealand. Like many of our native species a lot of them are endemic and only found in our country. 95 All native species of lizards are protected in New Zealand, culturally significant to mana whenua and prone to predation by rodents, cats and wasps. Protecting and restoring natural habitats for these species are

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<sup>&</sup>lt;sup>94</sup> Ibid, pp. 81-2.

<sup>95</sup> https://www.doc.govt.nz/nature/native-animals/reptiles-and-frogs/lizards/

important and actions such as those on Kāpiti Island and at Ngā Manu reserve should be supported and extended throughout the district.

### Our ancestral landscapes and waterscapes were once thriving environments

Mahinga kai/customary food gathering places & pā tuna/eel weirs are customary practices that are still very important to mana whenua. There were many mahinga kai and pā tuna sites throughout this district that nourished our people for many generations. Enabling, supporting, and passing on the knowledge of traditional food preparation methods are also very important, such as hangi, raureka tuna (a special technique of cooking eels wrapped in Raureka leaves), kangapiro/fermented corn etc. Ensuring access to abundant healthy non-polluted taonga kai species is of significant cultural value to mana whenua. Mahinga kai species are not just highly valued as sources of food, but they are also a necessary part of ensuring mauri and healthy thriving local ecosystems within our district.

Mahinga kai species include but are not limited to:

Toheroa/Tohemanga, Pipi, Tuatua, Paua, Kina, Kōura/Crayfish (including freshwater), Karengo/Seaweed, Tāmure/Snapper, Pātiki/Flounder, Kahawai, Tarakihi, Butterfish, Kingfish, Hapuka/Groper, Cod, Trevally, Herring, Kanae/Mullet, Piharau/Lamprey, Tuna/Eel, Īnanga, Kōaro/Kaore, Kōkopu, Kākahi/Freshwater Mussel, Puha, Watercress, Kererū, Kākā, Tui.

Ngāti Haumia reminisce about Kapukapuariki being a very important traditional māhinga mataitai (food gathering place) in Paekākāriki. It is a very significant taonga (treasure) that they still hold dear. The Fisherman's Table Restaurant sits nearby and as patrons enjoy their seafood meals and the outstanding ocean view it is hoped that they realise the status of the area to mana whenua. <sup>96</sup> Kapukapuariki rocks on the Paekākāriki escarpment along with the historic Paripari Pā site are of cultural, historical, spiritual and traditional significance to Ngāti Toa Rangatira. Both received statutory acknowledgement in the Ngāti Toa Rangatira Claims Act 2014. <sup>97</sup>

Ngāti Pare participants (of Ngā Hapū o Ōtaki) described in an interview for their Waitangi Tribunal claims that the original landscape of their rohe was dominated by waterways and ngahere that supported a range of mahinga kai, rongoa/medicine and traditional food species including: whitebait, tuna, toheroa, tuatua, pipi, flounder, koura, stingray, crab, kahawai, flounder and watercress. A selection of examples in their own words below show the cultural value of taonga food species and their locations within this Kāpiti Coast District. Significant waterways include: Ōtaki; Waitohu; Mangaone; Waiorongomai; Ngaitōtara; Rangiuru; Waitawa; Lake Inspiration; Waikato (back of Waitohu area); Waimanu; Spring at the beginning of the Mangapouri. Ngāti Pare relationships with these waterways was described as always being an intimate one; not just in that it has been critical to their physical survival, but remain special places critical to their wairua where spiritual cleansing and other rituals

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<sup>&</sup>lt;sup>96</sup> Karl Farrell, personal communication, 2 August 2023.

<sup>&</sup>lt;sup>97</sup> Greater Wellington Regional Council, 2021, Key Native Ecosystem Operational Plan for Paekākāriki Escarpment, 2021-2026, p. 5.

take place, whānau and the wider community can also spend time together socialising or conducting recreational activities, they also emphasized that maintaining this relationship is crucial to mental well-being. Aquatic species once relied upon for food are now less abundant and diverse. Participants described that the pollution of water has affected the taste of fish in their region and they held genuine concern about the long-term effects of heavy metals in water and fish flesh on human health. Degradation of the environment, waterways and the decline of species means that current and future generations of Ngāti Pare had become disconnected from taonga that have been central to their identity. The continued impacts of geomorphology of waterways has been altered through channelisation for stormwater management, drainage of land and wetlands for farming and development, increases in sediment filling in gravel-bottomed streams and gravel continuing to be extracted are all significant activities that must consider Ngāti Pare perspectives in the future given predicted climate impacts and planning adaptation strategies.<sup>98</sup>

"Before the restrictions you'd get a sugar sack (of toheroa). As much as you could carry. It would take me all day. Because in those days I would walk to the beach. Because you would walk out, the tide has to go in then come back out, you'd get your toheroa, by the time you get home that's your day." "Eel is the most versatile fish in the world...it's the way that you cook them. You can boil them, put them in raurekau leaves, and quite a few other ways." Wehi-o-te-rangi Royal

"Out by Katihiku when you used to shine the torch on the water you could see heaps of (tuna). Now you shine the torch, you're lucky if you see any." "I don't sell whitebait, what I catch I go around and give to whanau, friends, kaumatua and sometimes tangi if I have had enough, last year I caught a good lot and so that went to tangi and our reunion also. I'm happy if I can put some in the freezer for Christmas. The river is what brings our whanau together, not the whitebait. Our Grandad was born on the river, apparently our kui gave birth, cleaned him up, cut his pito and carried on whitebaiting, our whanau grew up on the river." Rumaiti Royal

"The river has changed as an effect of taking the gravel, particularly at the river mouth, as now we are seeing different fish come through such as stingray." Hara Williams

"The time our whanau is the happiest is whitebait season, that's the annual family reunion. There's a few jokes made this season, there must've been a dozen Royal nets in a line, and that day there wasn't even any bait! That's a wairua thing eh; going out there as a family like that, going and have a fire, washing in the river, having a feed off the river, everyone feels better at the river." Caleb Royal

"I think the important thing at the end of the day - life has changed - but those are still our pātaka kai. From our Māori perspective. Every time they do something like that [spraying weeds] there are species that die. That's a concern because in the future

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Item 4 - Appendix 3

<sup>&</sup>lt;sup>98</sup> Claudine Thompson, Andre Baker, Ricki Baker, Tasha McMeekin, Hara Williams, Hira Royal, Wehi-o-te-rangi Royal, Rumaiti Royal, Caleb Royal, 26/05/2016, interviewed by Dr Mahina-a-rangi Baker as part of Inland Waterways Research. Cited in Poutama, et. al., p. Page 123

how are we going to teach our kids their natural species in their rohe when they're not here. And if those species are disappearing then we need to go somewhere else to get it." Ricki Baker

"In the summer there was that flooding, there's that stuff that comes out the bottom of the Whanganui [River], raw sewage and stuff. There's the Manawatu [River]. And we know that that floats down here and I remember being told not to go pick the pipi because there was stuff that was discharged from the Manawatu and we know that stuff comes down from Whanganui. So we didn't. And there was always brown foam and stuff around after the floods and we just heard don't go and get pipi because it will be contaminated." Andre Baker

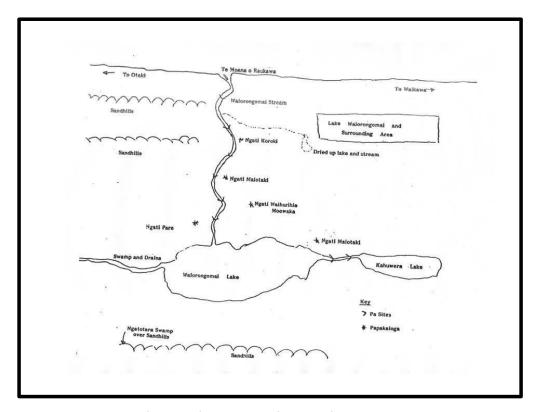
Gathering food, gardening, as well as fishing were significant cultural practices to the survival of the hapū. Ngāti Koroki (Ngā Hapū o Ōtaki) described Lake Waiorongomai, Te Pare o Matengae awa (The Creek) and Ōtaki River as being very significant to them. They also detailed that there were at least ten dune lakes near Ōtaki that had resources for them to gather at including Lake Kahuwera, Lake Kopuherehere, Lake Waitawa and Lake Huritini. Ngāti Koroki first established themselves at Lake Waiorongomai and The Creek. Sites of significance include the urupa/cemetary at Rangiātea Church, Tainui Marae, and the Ōtaki Public Cemetary. Papakainga were along Mill Road (also known as Rikiville), and down Carkeek Place next to the Ōtaki Primary School. Mahinga kai was described as critical during the years of the World Wars and the depression in the 1930s. The gardens of Pairoroku extended from seven houses in Rikiville to the Ōtaki College and through to Waerenga, the food fed many houses along Mill Road. Mahi tunaheke (work collecting eels during their beginning of migration to sea) and fishing also sustained the Carkeek and Rikihana families during this time. Smoked eels hot or cold was staple in their diets.<sup>99</sup>

In 1988 Miki Rikihana of Ngāti Koroki wrote a case study on the culturally significant and sacred site of Lake Waiorongomai where he described the mahinga kai and pā tuna in the ART Confederation Waitangi Claims Fisheries Report. He identified the main hapū of Ngāti Raukawa ki te Tonga who had fishing rights in the area of Lake Waiorongomai, Lake Kahuwera and the surrounding wetlands as Ngāti Pare, Ngāti Waihurihia, Ngāti Maiotaki, Ngāti Koroki and Ngāti Moewaka. He described the temporary papakāinga (home base) were used seasonally from November through to May which were operational up until the 1940's. The map he produced below shows the locations of the papakāinga and pā tuna for each of the hapū, (Figure 43). The main living pā was inland 2 kilometres at Ngātotara (Forest Lakes area) and south 5 kilometres at Pakakutu (near the mouth of the Ōtaki River – north side).

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<sup>&</sup>lt;sup>99</sup> Luke & Te Momo (Eds.), pp. 143 & 146.

<sup>&</sup>lt;sup>100</sup> Ngāti Toarangatira, Āti awa ki Waikanae, Ngāti Raukawa, date unknown, Iwi Treaty of Waitangi Fisheries Claim Report, pp. 83-85. Cited in Spinks, pp. 70-71.



**Figure 43:** Papakāinga (asterisks) and Pā tuna (symbol >) sites at Lake Waiorongomai and Lake Kahuwera. (Source: Ngāti Toarangatira, Āti awa ki Waikanae, Ngāti Raukawa, date unknown, Iwi Treaty of Waitangi Fisheries Claim Report)

Tony Manning a Ngāti Koroki (Ngā Hapu o Ōtaki) eeler reminisced of eeling at Lake Waiorongomai at the age of six with his Uncle Digger and cousin Uma, as well as learning associated cultural practices:

"There would be heaps of us... in the lake spearing using the matarau – the old pitch forks with the three prongs. At that time eels were abundant, they were everywhere... Uncle Digger had a holding pen [pā tuna/eel weir] with eels in it.

Lake Waiorongomai is a special and like another world when you are in there. Back in the day our tūpuna used to go there and make them noa after battle. It is really spiritual, and you feel the mauri there. You leave everything at the fence and you are just there with those eels and you feel them around your legs. I got right into it – you need to connect to the wairua.

I remember being at Raukawa [Marae] and the Rangiātea [Church] Minister at the time Pāora Temuera, saw the eels and gave them a blessing in Māori. He knew there were the aristocratic eels, so a karakia [prayer] for those eels. I thought that was amazing that he could just tell. But you can tell Waiorongomai ones — they're goldy

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with a creamy belly and arrow head. They're different from Waitohu [Stream] ones or other places.

Uncle Micky taught the Raureka eel, when you wrap them in the leaf... First you get the run eel and put it in a holding pen to clean it out [the puku] first. Get the leaves, Raureka, from Haruatai. Some people use wire, but I would use a fern stalk through the eel to cook it -3 inches sticking out either side. Then light a fire and wait for the embers to be ready and lean corrugated iron up against the fire. You would turn the eel and keep turning, but not so the leaf went black. It took me ages to perfect the technique. Once the stalk just slivered out you knew it was cooked perfect.

I was talking to Aunty Kiripuai about Raureka eels. She said the tikanga was when you serve them at Raukawa [Marae] you always serve them whole so that people could choose the part they wanted. The tail was always the best part, the hinu [fat]. That's what you offer to the women."<sup>101</sup>

Every food gathering area had a god or mauri ascribed to it. A long Māori tradition of giving back offerings to the appropriate god or mauri to ensure the ongoing vitality and fruitfulness of a species continues today. It was a form of conservation practice that has been abused and overlooked with the passing of time. Karakia/prayer or ritual before gathering food and resources, as well as embarking on journeys indicates the understanding and importance to Māori for ensuring spiritual and physical protections, seeking assistance and warding off dangers or undesirable conditions. Maramataka or use of the Māori calendar provided guidance for gathering shellfish, fishing, planting etc. Astrology would also influence favorable conditions to fish or travel. ART members who submitted our Treaty of Waitangi Fisheries Claim Report also recommended that "Finally, we submit that these resources, God given, must be managed according to Māori custom and beliefs, in order that the conservation of what is now left, be maintained. All efforts to replenish almost depleted stocks must be set in motion by using not only traditional Māori methods, but those of present day science and technology." 102

Ngāti Toa Rangatira has consistently sought to maintain customary rights with regard to the Te Awarua-o-Porirua/Porirua Harbour, marine coastal margins within their rohe, the moana and its resources. In recent documents iwi kaitiaki have stated that they mourn the loss of mahinga kai and live through the memories of their elders. From their iwi perspective there should be no compromise, we should be able to harvest food from, swim in and enjoy the waters of our moana without pollution, our ancient ecosystems should once again thrive with fish, birds, insects and plants. These aspirations are grounded in our responsibility as mana whenua of this region. <sup>103</sup>

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<sup>&</sup>lt;sup>101</sup> Personal communication Tony Manning, 2017, Ōtaki. Cited in Luke & Te Momo (Eds.), pp. 152-3.

<sup>&</sup>lt;sup>102</sup> Ngāti Toarangatira, Āti awa ki Waikanae, Ngāti Raukawa, date unknown, Iwi Treaty of Waitangi Fisheries Claim Report, pp. 23-26.

<sup>&</sup>lt;sup>103</sup> Te Rūnanga o Raukawa, 2019, Te Awarua-o-Porirua Whaitua Implementation Programme: Ngāti Toa Rangatira Statement, p. 5.

## <u>The health of our environment and the health of our people are interconnected and codependent</u>

Within this past century colonial mechanisms resulted in the devastation and decline in well-being of our environment, our people, our cultural practices, and our values. Enhancing our people through restoring our cultural values is proving to enhance the mana of our people for example through pukengatanga and education. In 1975, to ensure cultural survival Whakatupuranga Rua Mano - Generation 2000 was a 25 year tribal development plan established by Raukawa Marae Trustees - representatives of the ART Confederation. The principles of Whakatupuranga Rua Mano - Generation 2000 are:

- The people are our wealth; to develop and retain
- The Māori language is a taonga; to halt its decline and revive
- The marae is our principal home; maintain and respect it
- Self determination. 104

A number of Māori learning institutes of high cultural value were established or inspired in Ōtaki under the momentum of Whakatupuranga Rua Mano - Generation 2000 (see Figure 44). In 1981, Te Wānanga-o-Raukawa another ART confederation initiative was established and guided by the principals of Whakatupuranga Rua Mano - Generation 2000. This learning institute uses a distinctively Māori approach to tertiary education and is founded on ART iwi tikanga and kaupapa tuku iho. In 1995, Te Kura-ā-iwi o Whakatupuranga Rua Mano and Te Kura Kaupapa Māori o Te Rito were both established. They are committed to teaching school children aged 5-17 years in te reo Māori. He Iti Nā Mōtai erected on Te Wānanga-o-Raukawa grounds is a Māori immersion learning institute that caters for young children and babies aged 9 months to 6 years. <sup>105</sup>

Other learning institutes in Ōtaki based on Māori values and teaching in full immersion te reo and/or bicultural learnings include: Te Kōhanga Reo O Tū Roa, Te Kohanga Reo o Te Kakano, Te Kohanga Reo o Raukawa at Tainui Marae, Ōtaki Primary School - Te Korowai Whakamana, St Mary's Catholic School.

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<sup>&</sup>lt;sup>104</sup> Presentation by Petina Winiata in association with Turoa Kiniwe Royal, Leaders are made not just born - Planning for leaders and leadership succession: Whakatupuranga Rua Mano - Generation 2000 a case study. <sup>105</sup> Spinks, pp. 480-481.

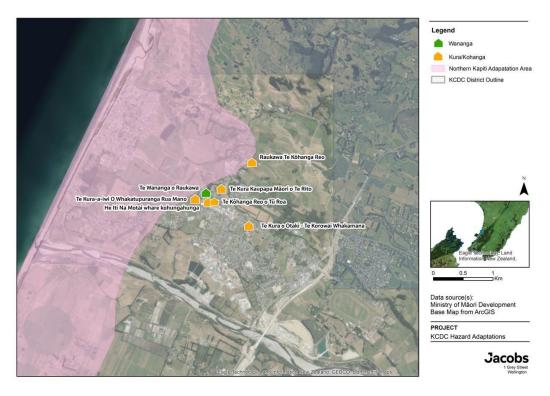


Figure 44: Learning institutes based on kaupapa Māori and Te Reo Māori, 2022.

Te Wānanga-o-Raukawa and Te Kura-ā-iwi o Whakatupuranga Rua Mano were built on land donated by the ART Ōtaki-Porirua Trust Board. In 1852 a block of 580 acres of ancestral land was given by the Crown back to the ART Confederation to support a school in Ōtaki run by the Church Missionary Society. Today that land and other assets, is administered by The Ōtaki and Porirua Trusts Board, and profits are used to fund post primary scholarships for children under the age of 20 from the three iwi of the area - Te Ātiawa, Ngāti Raukawa, and Ngāti Toa. The administration was set up with the passing of a private Act of Parliament, The Ōtaki and Porirua Trusts Act 1943. The Ōtaki and Porirua Trusts Board has also invested in further farm lands outside of the Ōtaki area. In Ōtaki, the Board is considering moving from traditional European based farming techniques to sustainable land use options. The farm between the Ōtaki township and Ōtaki beach is subject to flooding during winter and will be a site for future climate change impact considerations.

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<sup>106</sup> https://natlib.govt.nz/records/30109987



**Figure 45:** Ōtaki-Porirua Trust Board farm between the Ōtaki township and Ōtaki Beach under flood 2021. (Source: photo taken by Aroha Spinks)

Mana whenua are dedicated to restoring and enhancing mana and mauri within our district and actively participate in Māori/community/council-led restoration projects for our environment, such as Lake Waiorongomai Restoration Project; Waitohu Stream; Mangapouri Stream enhancement and monitoring by Te Kura Kaupapa Māori o Te Rito; Maringi-a-Wai Stream by Te Kura-ā-iwi o Whakatupuranga Rua Mano; Friends of the Ōtaki River; Katihiku wetlands by Ngāti Huia; and Ōtaki Lake by Ōtaki Waka Ama and Winstones. Iwi members are involved in removing pests and exotic weeds, reducing contaminants and rubbish, planting and translocating taonga species. Ensuring the continued positive actions to restore and enhance the mauri and mana within our district is of significant cultural value to mana whenua. The entire community and our ecosystems will benefit from supporting future adaptations that ensure the return of thriving healthy environments. Restoring native species that evolved to thrive and adapt within the natural environment of this coastline is highly likely to endure future climate impacts. Prioritizing the revitalisation of dune, wetlands and forest plants will reciprocate to atua, provide carbon sequestration, and provide a form of resilience to reduce impacts (i.e. less risks of flooding due to soaking up groundwater, reduce wind damage, reduce soil erosion). Rongoā plant species will help to enhance the well-being of people through medicinal uses as well.

Our environment was once thriving and mana whenua want it to be again. We have a bias to see the restoration of native environments revitalised towards what they once were. It is

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impossible to regain that entirely due to urbanisation, loss of biodiversity, exotic introduced species of plants, pests and animals especially invasive species, pollution as well as climate change effects etc. It is with growing interest and strength though that mana whenua remain committed to revitalisation of these factors and others for not just ourselves, and our ecosystems (of which we are a part of), but also for future generations living in our district. It is envisaged that mana whenua cultural values, shared knowledge and recommendations will enhance the mana and mauri within our district and aid in adaptation strategies for climate impacts. The ART confederation of iwi still have a collective approach and taiao staff meet regularly to discuss matters of the environment and future aspirations.



**Figure 46:** Te Wiata whānau planting at the Lake Waiorongomai Restoration Project, 10 October 2015.

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#### Thoughts for the future

One of the key concepts in developing a change continuum is to come to a realisation that a change in behaviors and perspective needs to occur and one of the illusions which need to be dispelled is that retreat is not an option. Regardless of everything we think and there are two constants from a Māoricentric point of view, they are, that our Atua Māori are still going to reign havoc on our environment and secondly that long after councils and the current owners of properties have come, gone or resold, lwi will still be here. The second part of a change continuum is to remove the opportunity for that elements that created it, are removed. How do we manage, modify, alter or change the law, people, activities or behaviors to ensure that the effects of climate change on our environment respects our cultural values for the benefit of all. The last part of my continuum of change is to create rehabilitative practices to support the new behaviors. These need to be entrenched into law and so that they are viewed as one entity. These cultural values should then be modeled by every entity within the local government, and mana whenua so that they create change together.

To support this, a longer perspective greater than current Council terms, more robust than fickle policy changes, a process or mechanism needs to be adopted which enshrines this within its own cultural korowai. Like our Māori ancestors as descendants of mana whenua within this district we have a cultural obligation to protect all species within our environment. Our cultural values are at the forefront of our decision making and planning. Our knowledge systems offer valuable solutions to climate crises.

#### Knowledge of our ancestors → Knowledge of today → All for our future generations

Relevant to future district plans and coastal adaptations is an aspect of our worldview and knowledge development that relates to an infinite number of possible future realities we can envisage but that are yet to occur. Dr Mahina-a-rangi Baker (Te Āti Awa, Ngāti Toa Rangatira and Ngāti Raukawa) wrote more about this in her doctoral thesis.<sup>107</sup>

Returning to the cultural values outlined by the ART Confederation for the Kapiti Coast District Plan in 2012 - pūkengatanga, ūkaipōtanga, manaakitanga and kaitiakitanga - can be further utilised to guide the Takutai Kāpiti project into the future.

Pūkengatanga and ngā kōrero tuku iho is about knowledge, also important is how that knowledge is utilised in that space in the kaupapa (e.g. climate impacts). Acquisition and application for the common cause. Pūkengatanga is the same as phronises, meaning 'practical wisdom' that which has been derived from learning and evidence of practical things. Experiential learning is another modern term. Pūkengatanga / phronesis leads to breakthrough thinking and creativity and enables the individual to discern and make good judgements about what is the right thing to do in a situation. Te Ahukaramu Royal (Ngāti

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<sup>&</sup>lt;sup>107</sup> Baker, p. xvii.

https://oxford-review.com/oxford-review-encyclopaedia-terms/phronesis-definition-meaning/

Raukawa ki te Tonga) presented the view that as a key cultural value to Māori the "use, creation and advancement of mātauranga Māori (traditional knowledge) should be grounded in and manifest is aroha (compassionate love)."<sup>109</sup> Thus the development of adaptation strategies moving forward in this district is recommended to acknowledge, respect, and include mātauranga Māori alongside other knowledge systems to be for the benefit of people, other species, and ecosystems and enhance the realms of atua.

Ūkaipōtanga is the ability of our planet to sustain those who are on it from a maternal perspective. The ability to create life. More important is the giving of life, the giving of nutrients etc to sustain life. The ability to provide mauri and sustain mauri.

"Tangata whenua consider that the life force – mauri – of natural systems needs to be protected. If it is compromised by unwise resource use, this would also constitute a risk for the people dependent on those resources. This concept is reflected in the current approach to sustainability, which takes into account the interdependence of the many parts of the ecosystem, including people. The Resource Management Act refers to "safeguarding the life supporting capacity of air, water, soils and ecosystems." 110

Manaakitanga is the ultimate expression of tikanga and kawa. When done well it represents all your ideals and values. If you have done cultural practices right. There is the host and the visitor who is being looked after. If manaakitanga is done incorrectly it seems like a transaction. If it is done right then it is an act of love without need of reciprocation. It comes out of respect.

Kaitiakitanga comes under a number of layers. First is the base layer, it is tangata whenua. Under tangata whenua is the connection that goes to where the placenta is, it is the beginning of all life. Then there is the link to physical/spiritual levels in whenua. It is me, I am it. I link to the depths of Papatūānuku in the whenua. Second is the layer of turanga waewae, the place where my pepeha resides. I am responsible now to that spiritual and physical place. My feet can stand in multiple locations but on your turanga waewae you are the kaitiaki of that place. Third layer is our role as whānau, hapū, iwi is the land we deem as turanga waewae. Kaitiakitanga doesn't become a term, it becomes a role based on the connection that you have to where you are. Another aspect of kaitiakitanga is rāhui. Rāhui in essence is the protection of the environment, land, people and oceans, from damage or harm. The key element is to remove them from access or use for the period that the environment, people or oceans need to heal or recover.

"Resources co-exist and interact with one another and are impacted on by the activities people undertake. Kaitiakitanga, the environmental guardianship practiced by tangata whenua, has its foundation in the world view that all life and the elements within the natural world which support life – such as land and water – are connected.

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<sup>109</sup> Cited in Baker, p. 14.

<sup>&</sup>lt;sup>110</sup> The Greater Wellington Regional Policy Statement proposed changes currently out for review, p. 7. https://www.gw.govt.nz/assets/Documents/2022/03/RPS-Chapters-1-and-2-Introduction-and-the-Wellington-region.pdf

People are a part of the natural order, not superior to it. The land and everything within and upon it is interrelated. Land management, river management, and maintaining and developing transport or housing infrastructure all utilise resources and can have an effect upon natural processes."<sup>111</sup>

Managed retreat, pre-emptive retreat are words that may be confrontational with negative connotations of our communities (not only Māori) being managed. Taking Māori perspectives into account other wording suggestions were discussed at a recent online webinar *Living at the water's edge: Climate-safe ground for papakāinga and coastal communities*, on the 29th of June 2022, held by NIWA and the National Deep South Challenge. Alternative suggestions included: embracing relationships with Tangaroa<sup>112</sup>; whakahononga<sup>113</sup>; restoring mana<sup>114</sup>. Another suggestion could be restoring mauri.

The Niho Taniwha Model developed below by Sean Bennett-Ogden (Ngāti Raukawa, Ngāti Tukorehe, Ngāti Kapu), Lindsay Poutama and others (including Hoani Bradley, Wheturangi Walsh-Tapiata, Potaka Taite and others) is deeply principled in mātauranga Māori (Figure 45). This model was proposed to iwi representatives contributing to the Ōtaki to North Levin motorway project received early support from Ngā Hapū o Ōtaki representatives. Central within the model is the kaupapa/cultural values further explanation of the concept is explained below. This mātauranga based model could be an option to consider to Takutai Kāpiti adaptation strategies in the future has the ability to measure success.

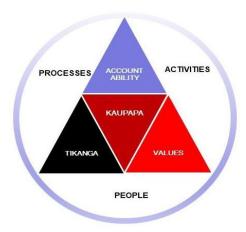


FIGURE 45: Niho Taniwha Model.

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<sup>&</sup>lt;sup>111</sup> The Greater Wellington Regional Policy Statement proposed changes currently out for review, p. 11. https://www.gw.govt.nz/assets/Documents/2022/03/RPS-Chapters-1-and-2-Introduction-and-the-Wellington-region.pdf

<sup>&</sup>lt;sup>112</sup> Personal communication Alexandra Kibble who mentioned hearing use by Ngāti Toa Rangatira whānau.

<sup>&</sup>lt;sup>113</sup> Personal communication Marama Pohatu.

<sup>&</sup>lt;sup>114</sup> Personal communication Akuhata Bailey-Winiata.

<sup>&</sup>lt;sup>115</sup> He Whakaaro presentation by Lindsay Poutama.

#### **TIKANGA (Pango Black)**

Is based on best practice examples which have served our whānau, hapū, lwi to ensure that people, processes and activities are done in a culturally safe manner.

#### VALUES (Whero Red)

Underpins the what and how decisions are made. To create a change culture within an institutional reality requires a willingness to progress plus a shared collective vision and values.

#### **ACCOUNTABILITY (Waiporoporo Purple)**

In all realms of "te ao māori' there are layers of accountability, this institution is no different, the level of accountability in this instance is to whatever sits at the centre, in this instance the kaupapa. All planning and reporting of milestones and KPI's should report on how the values have influenced and then been implemented into the kaupapa.

How does the Niho Taniwha Model work? 'Mā pango, mā whero, ka oti ai te mahi'. 116

#### **People**

People are at the base, they ground the kaupapa, they become the enactors to the processes and activities, they are the change agents. They ensure that the tikanga and model the behaviors which reflect the values which are embedded in the thinking, the accountability element confirms efficacy.

#### **Processes**

These are the key areas of connection between the kaupapa and activities, they ensure that the correct processes are engaged to support the kaupapa, informed by tikanga and supported by the values embedded in the institution's framework.

#### **Activities**

All the activities should be driven by the right people, using the right processes that ensure that the outputs of the kaupapa are done in such a way that there is a culturally, spiritually and physically safe outcome.

#### Communication

Clear, concise, penetrating and transparent messages and messaging is critical. Sometimes the messenger is just as important as the message. Communication is the thread that weaves together every element.

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<sup>&</sup>lt;sup>116</sup> This whakataukī is representative of the red and black patterns that are used in traditional Māori design. The proverb usually refers to different peoples or groups cooperating and combining efforts to achieve their goals.

To bridge the space created by the perceived difference in mātauranga Māori and Western science there was a need to create a process where differing knowledge systems could explore, connect and develop by having conversations based on commonalities, tensions and uniqueness which are then used for new knowledge creation. Historically there had been a mistrust to the point of invalidation of Māori knowledge systems by Western science, and a marginalisation of both from each other and mātauranga Māori (traditional knowledge) retreated into a self-imposed safe space. There was a need to create a 'Negotiated Space model' where both sit beside each other with a negotiated space where ideas, values are explored, realigned, re-negotiated and agreement reached.<sup>117</sup>

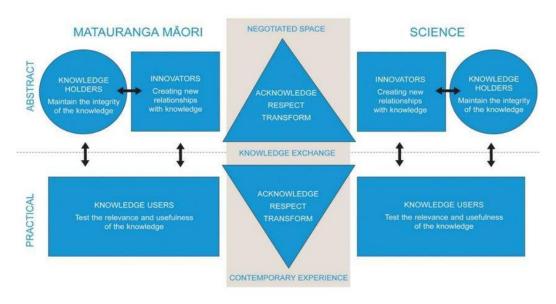


Figure 46: Negotiated Space model (Source: Macfarlane, Macfarlane & Gillon, 2015)

He Awa Whiria: A braided rivers approach, gives an insight into how we can embrace western science as well as traditional māori knowledge. There is a clear need to accept that there is a place for mātauranga Māori and western science. It is not that one knowledge system is better or more superior than the other, it is acknowledging that each has a place and that both systems can enhance outcomes, that they don't compete with each other but support, inform and create a new enhanced framework. <sup>118</sup>

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 $<sup>^{117}</sup>$  Macfarlane, Macfarlane & Gillon, 2015, Sharing the food baskets of knowledge: creating space for a blending of streams.

<sup>118</sup> Ibid.

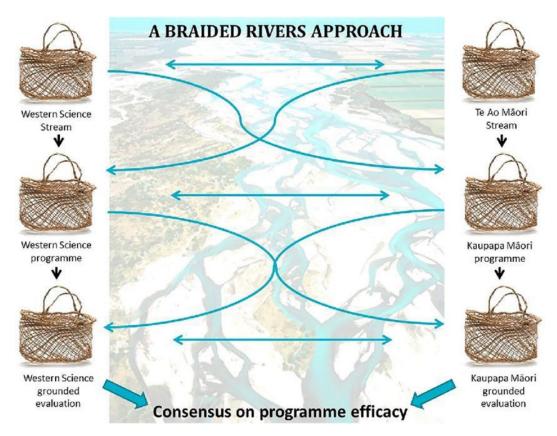


Figure 47: A braided rivers approach (Source: Macfarlane, Macfarlane & Gillon, 2015)

We don't all think the same, nor do we all share the same experiences, worldviews or knowledge base, but there are key elements that can underpin the thinking and a way forward if we return to the concepts outlined in the Niho Taniwha model.

#### **Tikanga**

Respecting and aligning with tikanga values, contexts and processes with a priority alignment to cultural elements and the viewpoints of the less powerful partners.

#### **Values**

The creation of connected, trusted relationships by working cohesively together in an agreed partnership, purpose, reflecting a set of agreed core values, where all these values are entrenched into the roles and processes to enable the sharing of science, cultural knowledge and environmental management expertise.

#### Accountability

A commitment to equity and a commitment to the Treaty of Waitangi by acknowledging that what is good for Iwi is great for everyone.

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#### Communication

The element that binds it all together in a transparent way that supports connection, reinforces trusted relationships, strengthening bonds and building whānaungatanga to create a legacy.

Rather than be reactive, there have been earlier ART recommendations to be as proactive as we possibly can be, even at this stage of climate crises. Another aspect to ponder for KCDC and the Takutai Kāpiti - community-led climate coastal adaptation project – what is our legacy statement? What will future generations remember us by, the generation who put in place measures in time or were we still planning, predicting and pondering when it was far too late. The diagram below shows a method that links to the Niho Taniwha model and can be evaluated to measure success. <sup>119</sup> The first stage is to consider what can we create considering all factors involved and our aspirations? If not, can we preserve? If not, can we enhance? If not, then can we restore? Outcomes should be solutions based, with tangible and intangible benefits.



Figure 48: Evaluation – Arotake (SOURCE: POUTAMA, 2022)

#### Create

Opportunities in all areas of the project that reflect the social, political and environmental aspirations.

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<sup>&</sup>lt;sup>119</sup> Cultural values O2NL - Ōtaki to North Levin Roading Project Presentation by Lindsay Poutama.

#### **Enhance**

What is already there to realise the maximum potential of the opportunity / environment to be the best version of itself (raise the status of the mauri).

#### Restore

If its broken fix it.

#### **Preserve**

Its natural state, and enhance it if there is an opportunity.

#### **Evaluate**

Every step of the journey to ensure that we are being good partners, and the project still reflects the values that we have stated as being important to us and that there is a process to evaluate the lessons learned.

The Takutai Kāpiti project is in the process of gathering our collective community vision for climate adaptations and district planning. Is it for example, to have access to beaches, to protect our homes at all costs, protect wāhi tapu at all costs, or to have our environment and water as pure as possible, without altering it's mauri, so that it remains it's truest self. As a community we should also ask ourselves, what are peoples' activities, behaviours, attitudes, or levels of awareness are needed to adapt. What do we as a community need to change? This report has attempted to outline and provide an awareness of cultural values within our district<sup>120</sup> to input into the Takutai Kāpiti process and be considered with fairness in the upcoming adaptation modelling. It should however not replace iwi engagement that is proposed to follow in wānanga.

ART Confederation members have also worked in collaboration with KCDC on the Stormwater Management Strategy and cultural values were included in a very recent report. Tohu Māori designs were developed to accompany the values (see the table below). These cultural values could be consistently used in this project as well given that stormwater, flooding and inundation is an important aspect to consider in climate impact assessments especially along our coast. Aligning our values will align our combined results. Protection of our environment, cultural values, social values, as well as economic values will ensure Tirity partnerships throughout our Kāpiti Coast community are enhanced. Te Ao Māori perspectives see our environment as not in silo, there is interconnectedness within and between everything, on physical, spiritual and mauri levels.

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<sup>&</sup>lt;sup>120</sup> Iwi perspectives in this report do not represent Ātiawa ki Whakarongotai - email Dr Mahina-a-rangi Baker 9 June 2022 and email Melanie McCormack 19 October 2022.

<sup>&</sup>lt;sup>121</sup> KCDC, Stormwater Management Framework, 2023.

#### **Stormwater Management Vision and Values**

Our vision for stormwater management in Kāpiti is where:

- water is given space to flow from the hills to the sea;
- the health of our water bodies is enhanced and restored;
- the operation, maintenance, upgrade and renewal of our network contributes to a thriving, resilient community and healthy ecosystem;
- communities are thoughtfully planned, are protected from flooding to an agreed level of service, and resilient to anticipated climate change impacts; and
- Council works in partnership with tangata whenua to give expression to Te Mana o te Wai.

Mana whenua Kaupapa (values)		Community values	Huanga (objective)
(P)	Mana whakahaere	Governance	Power to make decisions is shared by Council and tangata whenua, with the support of the community
	Kaitiakitanga	Stewardship	Our role is to be guardians and stewards of our natural resources
	Mauri	Care & Respect	Our actions recognise, restore, enhance and protect the life of our rivers and seas
90	Wairuatanga	Holistic	We think and act holistically. The well- being of the environment and the well- being of people is intricately connected
	Pūkengatanga	Innovation	We take an innovative and flexible approach to managing stormwater based on good historical, technical and cultural understanding
	Hapori	Community	Our communities are resilient and connected to their awa.

(Source: KCDC Stormwater Management Framework, 2023)

"Te Ao Māori recognises that storm events and functions of nature are in-fact expressions of atua (spiritual and physical deities). Atua Māori are the ancestral forebears of people and their behaviours are connected to their moods and are often in response to our actions. mātauranga Māori clearly establishes a hierarchy between people and atua, with atua in the ascendant tuakana (elder) space. The Māori knowledge continuum recognises that in forming solutions to climate change and coastal hazards, people need to remove themselves from the spaces where atua are enraged and feuding amongst themselves. Fighting against their expressions will only

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result in the atua becoming further enraged and more severe outcomes. Māori solutions rely on restoring the balance between feuding atua māori and the empowerment of deities that offer natural protection from coastal forces." <sup>122</sup>

To conclude this report from mana whenua perspectives the constants are: Tangaroa and Tāwhirimātea are going to do what they want to do; Papatūānuku will always be here - the lands on which we inhabit; mana whenua will always be here - the descendants of the ART Confederation iwi. Everything else moves in and around those. If we are looking at solutions we need to consider what are the constants within our environment and adapt and risk mitigate around those elements. Climate change is only one of multiple layers of effects and impacts happening along our Kāpiti Coast along with habitat loss, pollution, sedimentation, land use etc. Climate change is a combination of all of those factors occurring at once and built up over a long period of time. Nothing happens in isolation to everything else. Everything in a Māori worldview is connected and interconnected. Mauri is about the strength of that element and the connection to the Atua associated with it. If any of those connections are severed then the mauri is diminished. You can palpably see it. An easy example is if you see your lawn and the grass is brown and lifeless you add water to it and it reconnects the grass back to its source energy. What we are suffering from in this fast-approaching climate change crisis is a severe diminishment of mauri. There needs to be a clear connection to all living things and the Atua that created them and our environment. Looking through a Māori lens our future considerations should be how do we strengthen the interconnectedness of all the elements. We cannot create a solution to one thing in isolation, we must look at the ecosystem in its entirety and its connection to everything else.

Mauri tū, Mauri oho, Mauri ora.

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<sup>&</sup>lt;sup>122</sup> Personal communication Caleb Royal, 24 August 2022.

#### GLOSSARY<sup>123</sup>

Atua Physical and spiritual deities

Kaupapa Cultural values

Korero tuku iho Knowledge handed down

Mahinga kai Customary food gathering places

Pā tuna Eel weirs

Papatūānuku Deity, Earth Mother

Ranginui Deity, Sky Father

Repo Swampland

Rūaumoko Deity of earthquakes, volcanoes and seasons

Taiao Environment

Tāne Mahuta Deity of forests and creatures within

Tangaroa Deity of oceans and creatures within

Taumau Arranged marriage

Tāwhirimātea Deity of winds and storms

Te Ao Māori World views of Māori

Tikanga Cultural practices

Tuakana Elder

Tūmatauenga Deity of War

Whakapapa Genealogy

Whakataukī Proverb

Whare Nui Big house, ancestral house

Whire Deity of darkness and the total embodiment of evil

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<sup>&</sup>lt;sup>123</sup> Note: simplified meanings.

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OIR: 2324/759

26 January 2024

Salima Padamsey spadamsey@yahoo.com

Tēnā koe Salima.

Request for Information under the Local Government Official Information and Meetings Act 1987 (the Act) (the LGOIMA)

Thank you for your email of **7 December 2023** requesting the following information:

1. @1:21:22 Community member asks: "Just on that point, will CAP engage with Coastal Ratepayers United because I think that they did try" [cut off by a CAP member]

@1:21:28 CAP member responds: "yes we did, we've invited them along to come and talk to us...."

Could you please provide the documentation upon which CAP members relied to make this statement

A search of Council records has not identified any documentation relating to this statement.

We have also asked members of the Coastal Advisory Panel (CAP) to provide any documentation that they relied upon when making these statements. CAP members were unable to identify any such documentation. On that basis, I must decline this part of your request as the documents alleged to contain the information requested does not exist, or despite reasonable efforts to locate them, they cannot be found, section 17(e) of the LGOIMA refers.

2. However, CAP members have clarified they would welcome a meeting with Coastal Ratepayers United, if desired. If you would like to pursue this option, please contact CAP directly to follow up. @1:21:50 CAP member states:

"...since we have been established every attempt we have made to engage with Coastal Ratepayers United has been rejected ..."

Could you please provide the documentation upon which CAP members relied to make this statement

Please note that any information provided in response to your request may be published on the Council website, with your personal details removed.

Please see response to question 1.

3. @1:22:41 CAP member states: "We've been trying to connect with them since August 2021...."

Could you please provide the documentation upon which CAP members relied to make this statement

Please see response to question 1.

You have the right to request the Ombudsman to review this decision. Complaints can be sent by email to <a href="mailto:info@ombudsman.parliament.nz">info@ombudsman.parliament.nz</a>, by fax to (04) 471 2254, or by post to The Ombudsman, PO Box 10152, Wellington 6143.

Ngā mihi,

**Gina Anderson-Lister** 

Acting Group Manager Strategy and Growth Te Kaihautū Rautaki me te Tupu

Please note that any information provided in response to your request may be published on the Council website,

 From:
 Abbey Morris

 To:
 Abbey Morris

 Cc:
 ;

 Subject:
 Fwd: Coastal Advisory Panel

 Date:
 Monday, 26 February 2024 5:48:44 pm

Hi Abbey

Here you go, Kelvin's invitation to CRU.

Don



----- Forwarded message -----

From: **Kelvin Nixon**Date: Thu, 18 Jan 2024 at 12:06 PM
Subject: Fwd: Coastal Advisory Panel
To: CAP

Hi team

As agreed at yesterday's CAP meeting I have sent the invitation to CRU. As you can see I have set up a dummy email address.

Kelvin

From: Kelvin Nixon < secretary.CAP@outlook.com >

**Sent:** Thursday, January 18, 2024 12:01

To: cru.kapiti@gmail.com <cru.kapiti@gmail.com>

**Subject:** Coastal Advisory Panel

To The Secretary Coast Ratepayers Union By email

The Coastal Advisory Panel wishes to extend an invitation to your group to meet.

If this is of interest to your members, please let us know and we can confirm details.

Kind regards The Secretary

#### newsroom.

#### **:LIMATE CHANGE**

# Govt warns councils against 'picking extremes' in climate decisions

Auckland and 17 other councils have commissioned regional climate projections from Niwa, and some have vorked worst-case temperature increases of as much as 3.8C into their decision-making



by **Jonathan Milne** 20/03/2024



imon Court, the Government's Undersecretary for RMA Reform, says councils risk skewing the viability of projects. Digitally-extended photo: Mark antrum Photography

Councils are being warned they risk lawsuits by requiring developers to design and build to overly stringent climate varming models.

This week, Newsroom reported Auckland Council is opposing a fast-track consent for a surf park and data centre levelopment backed by Sir John Kirwan and Spark NZ, because it doesn't meet tough new climate adaptation

equirements

Auckland's new Stormwater Code of Practice requires projects to be designed and built in readiness for 3.8°C of climate warming over the next 100 years – a regional projection that is far higher than United Nations global nodelling.

#### **READ MORE**

LIMATE CHANGE

Surfing venue with data centre faces new 3.8°C climate warming rule

RIMARY INDUSTRIES

Fast-track list slowed down by lawyers' demands

As well as Auckland, Newsroom has learned nine regional councils and eight district councils have commissioned Niwa to prepare regional climate projections in the past few years. Some of those, like Auckland, are working those emperatures into their decision-making.

Simon Court is the Parliamentary Under-Secretary to the Minister Responsible for RMA Reform, which makes him a nember of the Government executive.

He is criticising councils like Auckland for insisting landowners and developers design for an "extreme" 3.8°C emperature rise.

When councils go getting involved and start picking extreme values, it has massive impacts on flood risk projections and it skews the perceived viability," he says.

The council's job should be to advise landowners of the risk so they can decide how to design and build their way out of it. If the investors and their private insurers are comfortable with a project, there's no reason for the councils to have further involvement."

That sentiment (though not the solution) is echoed by Canterbury University's Professor Dave Frame, who was a lead author on the Fifth and Sixth Assessment Reports of the Intergovernmental Panel on Climate Change.

Jnder the Resource Management Act, local authorities are required to have particular regard to climate change. They have a duty to avoid, remedy or mitigate adverse effects of climate change; everyone who carries out an activity or levelopment under the Act must do the same.

Niwa provided councils with two modelling ranges – the internationally-accepted representative concentration pathways 4.5 and 8.5. The RCP 8.5 model is a worst case scenario – and it is that 3.8 temperature projection that Auckland Council has chosen to accept.

rame says that decision undermines its credibility, puts the council at risk of legal challenge, and could impose idded costs on developers and ultimately, the community.

f developers are required to build to standards that anticipate more frequent, more severe flooding and fires and other events, then they will have to spend more. And that cost will be passed on to the purchasers and tenants of new homes and businesses.

If they build in a safety margin that's actually contingent on a scenario that nobody really believes, then it's bad solicy practice. And I also think it opens the door to legal challenge."

3ut Ian Dobson, Auckland Council's manager of resource consents for the north-west, disagrees. He doesn't accept hat all proposed developments that fail to allow for flooding or other impacts associated with 3.8°C of warming can or will be turned down.

Not necessarily," he replies. "All developments within flood hazard areas that require a resource consent are required of undertake a hazards risk assessment. The risk assessment needs to take into account the impacts of climate change over at least a 100-year period.

'A 3.8°C climate change scenario will increase the hazard risk on a site, however in some cases this may have small mplications, while in others it will be more significant. It will depend on a number of factors, including the site's ocation within the surrounding topography, catchment and pattern of development."

t is not uncommon for the council to request a flood risk assessment, as part of the assessment of a resource consent.

Generally, when an issue is raised by the council during the consenting process related to a hazard, such as flooding isk, the applicant will then look at options for mitigating that hazard. If they can show the council they have put an appropriate mitigation in place, the application can move forward."



Other councils are incorporating Niwa's projections into their policies and decision-making in different ways. For nstance, if the surf park and data centre were to be built 50km further north in the Kaipara district, the worst-case climate warming projection is 3.5°C.

Council spokesperson Gillian Bruce says Kaipara is working with its communities and with the Northland Regional Council to enable a transition to appropriate land use and infrastructure.

The council seeks the expertise of suitably qualified and experienced engineers to mitigate the effects of natural nazards such as flood events when considering resource consents and building consents – and their recommendations nay take into account aspects of climate change.

n Tasman District, where mean annual temperatures are projected to rise up to 3.0°C, spokesperson Tim O'Connell ays its modelling is nearly 10 years old and the council is revisiting that as new information and updates come to ight. "We have done some work with sea level rise as opposed to specific temperatures," he adds. "This has seen us eview or in some cases take certain areas out of acceptable zones for housing but these are not temperature driven."

Adrian 'Ace' Buchan, the Australian pro surfer who is director of surf and sustainability for Aventuur, says the company is already responding to the council's feedback and to the consenting panel, as part of the fast-track process.

The flood modelling assessment is based on the standard set out in the Auckland Council Code of Practice," he says. The design of the data centre already incorporates best practice climate change and flood risk assessment, protecting or risk beyond the standard recommendation."

3uchan, a longtime environmental advocate, is the chair of Surfing Australia and a founding board member of Surfers or Climate. He emphasises Aventuur's commitment to delivering net positive environmental outcomes at the Auckland surf park.

We believe it's our responsibility to display leadership and innovation and have a positive impact on the planet and n our local communities. This is something shared by JK and our New Zealand partners," Buchan says.

'Surf parks won't replace what the ocean means to me but I believe they have a unique and important role to play not only in creating exceptional surfing experiences and communities but as places that are genuine social assets and examples of sustainable development."



#### **Dr Kevin E Trenberth**

20/03/2024 at 10:17 am

Jood heavens. The IPCC projections are tied to an emissions scenario and they are NOT predictions. An emissions scenario is for planning purposes and represents possible emissions of carbon dioxide and other pollutants, not likely ones. Many climate models have been used to make projections and all have issues and uncertainties. There is no sound continuous research in New Zealand, including in NIWA, to improve this situation. The funding is episodic and not continuous. Choices of which models are most credible must include roper assessments for the NZ region. There is a huge need for sustained funding to improve research, with proper assessments for the lest estimates of what will happen in the future, and what the assumptions are. Translating that into useful information for Councils and lecision makers of all kinds is also a major research task, and should not be done by Councils by themselves.



#### Frances S.

24/03/2024 at 9:52 am

Unfortunately I suspect continuous sound funding for this sort of practical research will not be happening anytime soon. Politicians and managers seem to be allergic to this type of committment.



#### **Troy Baisden**

20/03/2024 at 8:14 pm

This article identifies what is becoming a very large problem, but doesn't communicate the problem or its history as well as we need to. I dentified it was going to result in predictable and reproducible misuse of the RCP8.5 scenario. Instead of correct use, which would rigger careful use of more reasonable scenarios, the most extreme (and functionally impossible) climate change scenario (RCP8.5+ or bout 3.8°C of warming) is being frequently used as a prediction. This will hamstring infrastructure and cause insurance retreat if this razy, unscientific approach continues to get baked into policies and planning.



#### **Kathleen Healam**

22/03/2024 at 10:56 am

While this government is saying, "Don't go to extremes," the WMO meanwhile is issuing a Red Alert.

9th March 2024:

JENEVA — The U.N. weather agency is sounding a "red alert" about global warming, citing record-smashing increases last year in reenhouse gases, land and water temperatures and melting of glaciers and sea ice, and is warning that the world's efforts to reverse the rend have been inadequate.

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Earth's issuing a distress call," U.N. Secretary-General Antonio Guterres said. "The latest State of the Global Climate report shows a lanet on the brink. Fossil fuel pollution is sending climate chaos off the charts."

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Topping all the bad news, what worries me the most is that the planet is now in a meltdown phase — literally and figuratively given the varming and mass loss from our polar ice sheets," said Jonathan Overpeck, dean of the University of Michigan School for Environment and Sustainability, who wasn't involved in the report.

saulo called the climate crisis "the defining challenge that humanity faces".. https://time.com/6958370/un-wmo-climate-change-red-alert



#### **Graham Townsend**

22/03/2024 at 5:26 pm

Indeed. While we can all hope for the best, it seems wise to plan for the worst. At the moment, climate models show a range of predictions but recent data suggests our current trajectory is driving us towards the top end of that range.

https://phys.org/news/2023-11-earth-29c-current-climate-pledges.html

https://phys.org/news/2024-03-planet-brink.html

Even if we pull finger and manage to avoid a global mean temperature rise of +2.5C or more, the impact on our major trading partners will be enough to severely damage the NZ economy. Globally we'll see mass migration from tropical regions, which will have its own consequences in terms of human suffering and the potential for conflict.

https://www.nature.com/articles/s41893-023-01132-6

https://phys.org/news/2023-05-factor-human-migrationnew.html

https://phys.org/news/2023-02-small-temperature-large-scale-migration.html

https://www.scoop.co.nz/stories/WO2206/S00289/intolerable-tide-of-people-displaced-by-climate-change-un-expert.htm

https://www.aljazeera.com/opinions/2022/3/8/science-says-climate-change-will-fuel-greater-displacement

Yet we recently voted in a government determined to backpeddle on climate action and build more roads...



#### Frances S.

24/03/2024 at 10:00 am

Two things seem to be missing in this discussion – where do the benefits and risk sit, and are the IUCN estimates (including the 8.5 cenario) the most realistic/ best to use? I'm guessing those who will benefit most from projects going ahead in potentially risky areas are he current investors/ developers; whereas the risk sits with future rate payers and those who later own the infrastructure and then get tuck if the scenarios are too conservative/ underestimates/ etc. If there is high future risk I suspect insurance companies will just pull out so no good to rely on them except in the short-term. On point two – it seems like the IUCN scenarios are conservative for many reasons - but others more qualified than I am can comment on that. I also wonder if the scenarios deal well with these infrequent but large scale events.

# Takutai Kāpiti Coastal Advisory Panel Update to Paraparaumu Community Board On Central Adaptation Area – Paraparaumu & Otaihanga

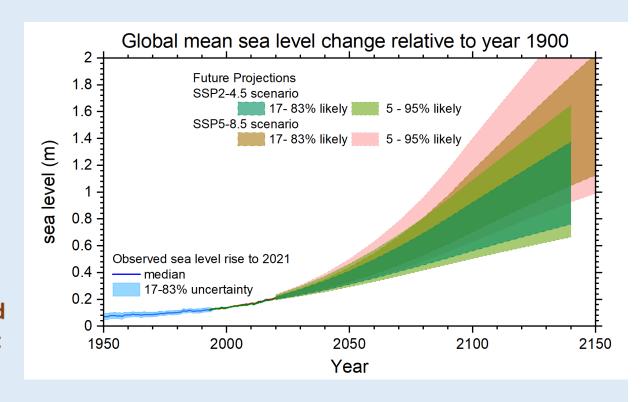
(26 March 2024)

# Projections for future sea Level rise Intergovernmental Panel on Climate Change 2021

Less scientific confidence in the numbers as they go more than about 50 years into the future.

This mainly due to potential destabilisation of ice sheets causing more rapid changes.

Major advantage of staying well below 2°C global warming is that responses in Greenland and the Antarctic will be slower so it gives more time to adapt.



# **Agenda**

- About the Coastal Advisory Panel (CAP)
  - Who are we
  - What is our role
- Overview of our Process
- An overview of the Central Adaptation Area (CAA)
- Application of our process, so far, to Paraparaumu and Otaihanga
- Next Steps
- Questions

## Who is the CAP

- Appointed by KCDC in 2021
- Membership
  - > Independent Chairman
  - Six community members
  - Six Iwi members
- Supported by
  - KCDC Project Team
  - Technical Advisory Group

## What is the CAP's Role

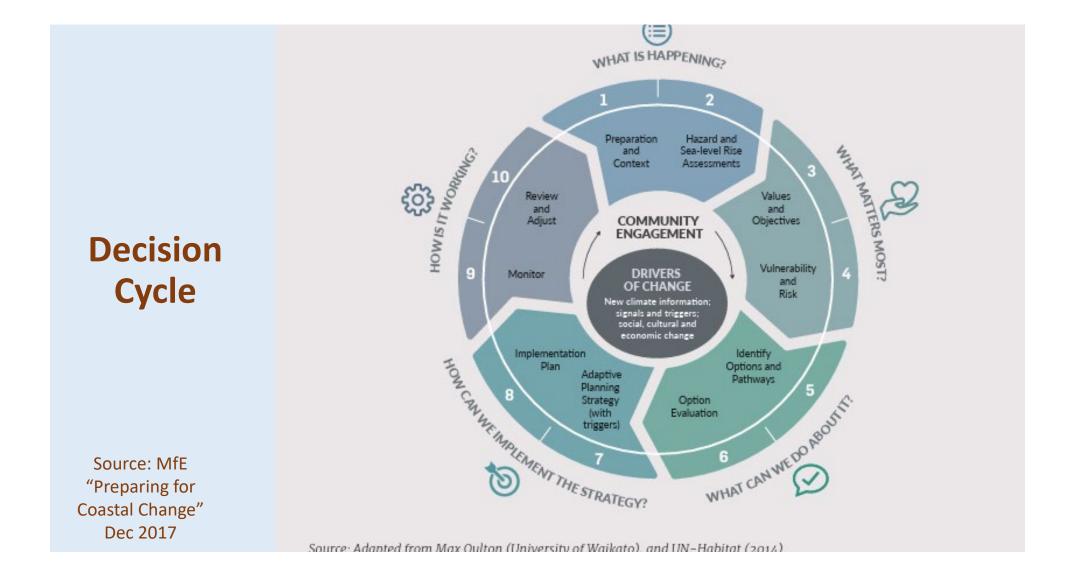
Our Terms of Reference state our purpose as being to –

- Develop coastal adaptation options and make recommendations for KCDC consideration
- The recommendations, including any potential costs, legislative requirements, and benefits associated with those options, should also guide the development of District Plan provisions to manage coastal issues. These recommendations will be evaluated by the Council as part of the development of the future coastal plan change. They may also provide for useful input into dealing with the wider District implications of sea level rise.

# What are the CAP's Objectives

The CAP's objectives are to –

- a) To facilitate engagement with the broader community, affected persons, and other stakeholders in relation to coastal hazard risks and associated coastal hazard response options.
- b) To develop coastal hazard response options through consideration of the practicality, affordability, scientific, cultural, and social values (technical expertise provided externally) of a range of options, based upon agreed trigger points.
- c) To determine, in consultation with the wider community, the preferred option(s)
- d) To prepare a report detailing the evaluation process and recommendations of the Panel.

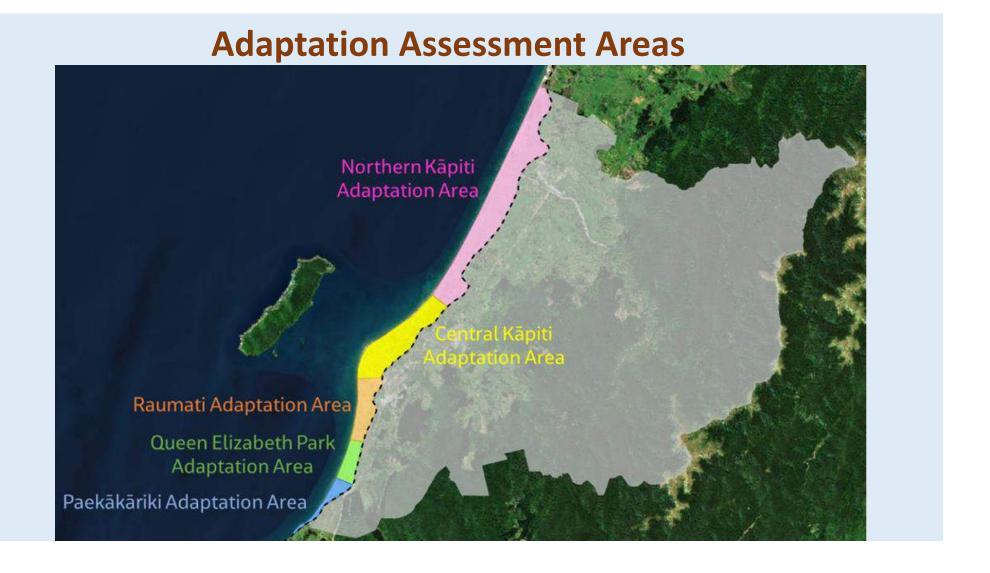


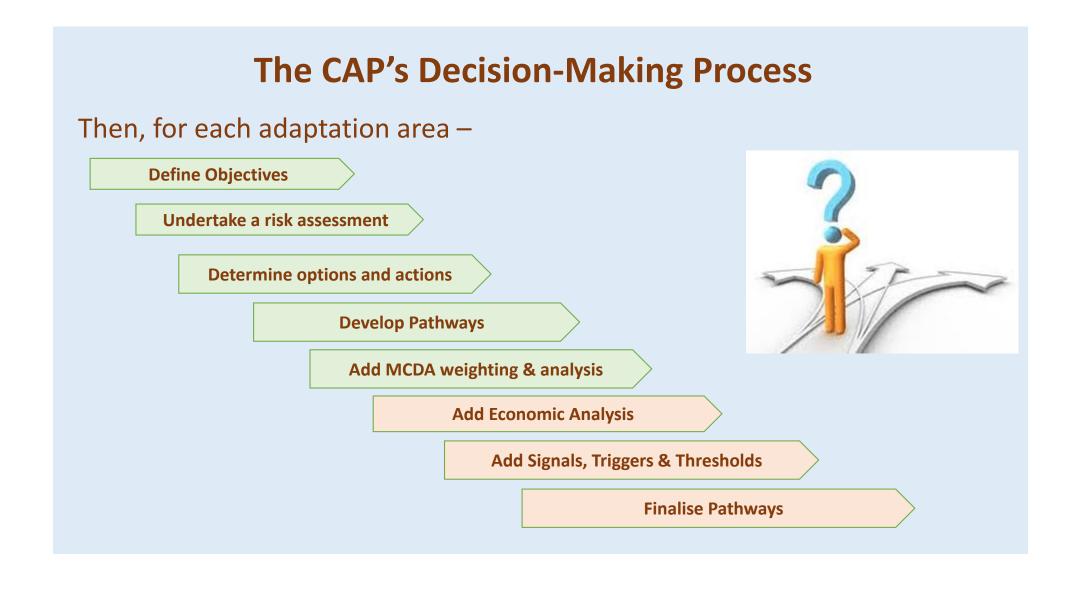
# The CAP's Decision Making Process

First, define adaptation areas and erosion and inundation sub-units:

- Northern Otaki Beach, Te Horo Beach, Peka Peka Beach, Rural
- Central Waikanae, Paraparaumu, Otaihanga
- Raumati North, South
- Queen Elizabeth Park GWRC
- Paekakariki Seawall, South of Seawall





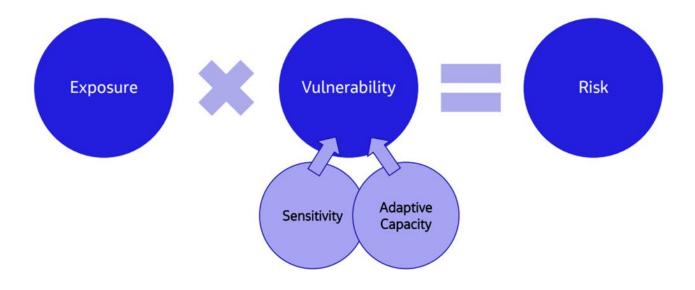


### **Define Objectives**

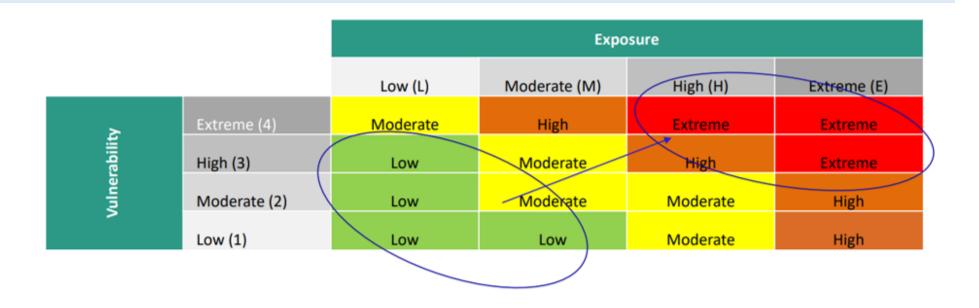
- Start with Community Values
- Analyse values to determine key themes
- **Define objective** based on key themes



# **Calculating Risk**



### **Risk Ranking**



From: Ministry for the Environment. 2021. He kupu ārahi mō te aromatawai tūraru huringa āhuarangi ā-rohe / A guide to local climate change risk assessments. Wellington: Ministry for the Environment.

### **Potential Options and Actions to Consider in a Pathway**

#### Maintain

- · Maintaining what is already here
- · Continuing community education
- · Environmental monitoring
- · Emergency management
- · Controlling beach access
- · Planting enhancement

#### Accommodate

- Flood proofing buildings and infrastructure
- · Relocatable/ adaptable buildings
- Raising land levels
- Ground water and storm water management
- Relocation and resilience of infrastructure

### Avoid

- Limiting further intensification
- · Zoning and set back controls
- Trigger-based or time limited land use consents

### **Protect**

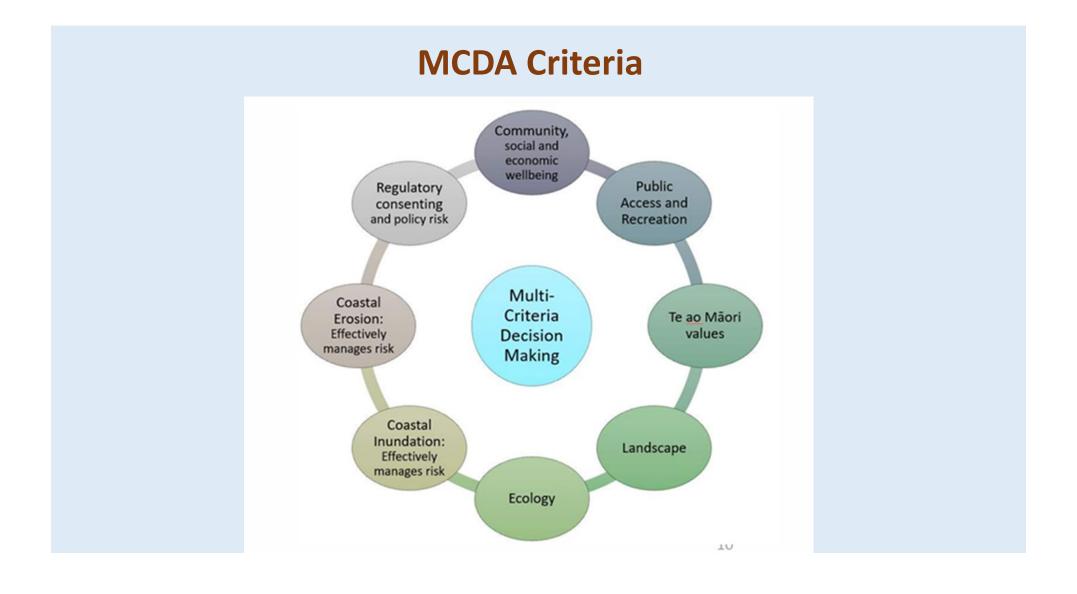
- Shoreline renourishment, beach scarping
- Hard engineering works (walls, revetments, grovnes)
- Offshore wave reduction works (offshore breakwaters)
- Stopbanks. Storm surge barriers in

### Retreat

- Buy outs
- Land swaps
- · Leasebacks
- Future interests
- Conservation easements
- · Transferable development rights

### **Developing Pathways**

- From the shortlisted Options and Actions develop potential pathways that meet the objectives created from the community values
- Pathways should be
  - Technically feasible
  - Practical to implement
  - Realistic; and
  - Have maximum adaptability
- Short-listed potential pathways then assessed in the MCDA and economic assessments



### **MCDA** Weightings

- All criteria must be weighted on a scale of 1 to 3 (no half numbers)
- Weightings are assigned to reflect relative importance between criteria
- All criteria are important wouldn't be included if they weren't
- Weightings reflect that while all criteria are important, they are not all equally important to the task at hand

### **MCDA Scoring**

All criteria must be scored on a scale of one to five

- 1 = Highly Undesirable
- 2 = Undesirable
- 3 = Neutral (neither undesirable or desirable)
- 4 = Desirable
- 5 = Highly Desirable

## **MCDA Criteria & Scoring Guide**

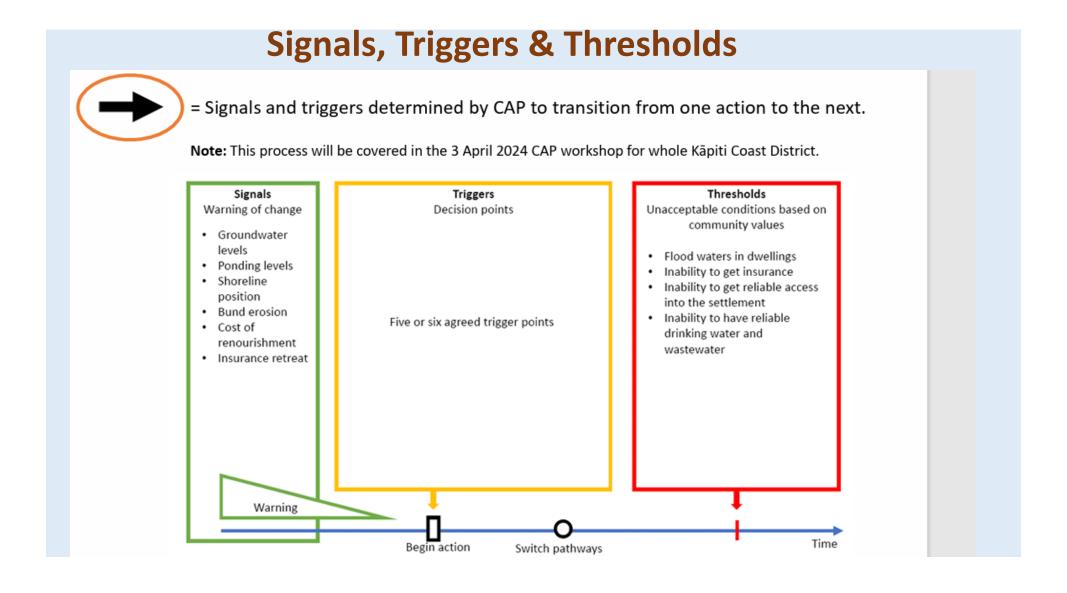
#	Criteria	Weighting		Score
1	Ecology			
2	Landscape			
3	Te ao Maori Values			
4	Community, Social & Economic Wellbeing	1 - 3	X	<ol> <li>Highly Undesirable</li> <li>Undesirable</li> <li>Neutral</li> </ol>
5	Public Access & Recreation			<ul><li>4. Desirable</li><li>5. Highly Desirable</li></ul>
6	<b>Consenting &amp; Risk</b>			3. Highly Desirable
7	<b>Coastal Erosion</b>			
8	<b>Coastal Inundation</b>			

### **Economic Analysis**

- Top three pathways included in the economic analysis
- The CAP objectives and outputs includes -

"To develop coastal hazard response options through consideration of the practicality, **affordability**, scientific, cultural, and social values (technical expertise provided externally) of a range of options, based upon agreed trigger points. These options might include, but not be limited to,:

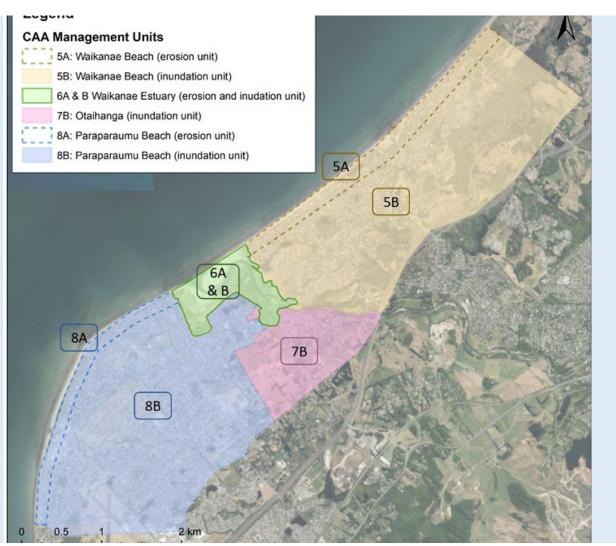
- i. Hard Engineering solutions;
- ii. Soft Engineering solutions (e.g. beach nourishment, beach crest stabilisation);
- iii. Retreat including identification of alternative building sites and land purchase; and
- iv. Relevant internal Council Policies."



## **Examples of Thresholds**

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





### **CAA – Community Values Questions**

### Key events:

- 1. Community Values Workshop Otaihanga Boating Club 6 May 2023
- 2. Online survey Have Your Say April May 2023

### The four values questions:

- 1. What do you value most about living here?
- 2. How important is our coastline to you and why?
- 3. How concerned are you about coastal hazards like erosion and flooding and why?
- 4. How do you think our coastline should be protected?

Over 600 responses received and recorded

### **CAA Community Values Responses**

### Five Key Themes –

- 1. Localised efforts are used to address the impact of coastal hazards
- 2. The coastline is highly valued by our community
- 3. Maintaining natural environment values
- 4. Maintaining our valued recreation spaces
- 5. Protecting the community's best interests

### **Objective for Central Adaptation Area**

Plan and implement sensible adaptation solutions that recognise the natural and relaxed coastal community feel as the coastline evolves over time by:

- protecting the mana of the coast, dunes, biodiversity, and river and wetland areas;
- utilising natural solutions where practical; and
- adapting our public recreation assets and services;
- keeping the community informed and involved about the types of solutions and associated costs

### **Risk Analysis**

Sub-Area 7B – Otaihanga Sub-Area 8A – Paraparaumu (Erosion) Sub-Area 8B – Paraparaumu (Inundation)



### **Risk Levels**

	Haz	rard	Hazard		
	SSP2-4.5 SSP5-8.5		SSP2-4.5	SSP5-8	
	Risk	Risk	Risk	Risk	
Elements	0.85 m	1.25 m	0.85 m	1.25	
Built Environment					
Properties	L	M	М	м	
Properties (Waikanae)	M	М	М	Ε	
Properties (Otaihanga)	M	E	L	L	
Properties (Paraparaumu)	L	м	М	н	
Water Supply Infrastructure	L	м	L	м	
Wastewater Infrastructure	M	м	м	м	
Stormwater Infrastructure	M	м	м	н	
Roads and Bridges	Ε	ε	L	м	
Electrical transmission and supply infrastructure	M	м	м	м	
Natural gas supply mains	L	L	м	м	
Ecologcial					
Dunes	L	L	н	Ε	
Ecological Sites	E	Ε	L	L	
Wetlands	н	н	L	L	
Significant bird habitat	н	н	м	м	
Key indigenous trees	L	L	L	L	
Human					
Displacement	н	ε	м	м	
Inequities	н	Ε	L	м	
Health	E	Ε	м	м	
Daily Routines	M	н	М	м	
Natural Character					
CTA2: Paraparaumu and Waikanae	M	м	н	н	
Peka Peka Dunes (South) - High Natural Character	м	м		Ľ	
tradition of the same of the same					

### **Adaptation Options and Actions**

**OPTIONS ENHANCE ACCOMODATE PROTECT** RETREAT **AVOID** We maintain and improve We move away from the We don't move into the way of the We live with the hazard We keep the hazard away hazard hazard in the first place what we are already doing Soft Engineering (Erosion) Raising minimum floor Enhance existing erosion Relocatable buildings Retreat Beach scraping levels of new builds protection structures Renourishment Raising floor levels Reduce further Enhance existing **ACTIONS** Flood-proofing Hard Engineering (Erosion) intensification or inundation protection Sea walls (vertical, buildings development revetment, buried, Enhance access and Flood proofing interlocking) Trigger-based or time ramps Detached breakwater infrastructure limited land use consents (submerged, exposed) Dune and wetland enhancement/resilience Zoning and setback Inundation controls Flapped culvert outfalls **Emergency management** Flood gates Pump stations Environmental monitoring Stopbanks Earth bunds Community education and risk awareness Private owners'

### **Develop Pathways**

Apply findings of risk assessment to inform a range of possible adaption options, considering -

- Short, medium and long-term timeframes
- Two sea-level rise scenarios SSP2-4.5 & SSP5-8.5
- Impacts on
  - Built Environment
  - Human
  - Ecology
  - Natural Character
  - Cultural Values



## **Sub-Area 7B: Otaihanga Inundation Unit**

Pathway	Short term	$\rightarrow$	Medium term	$\rightarrow$	Long term
Pathway 1	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> ) (Protect)
Pathway 2	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Elevate floor levels of buildings <sup>7</sup> + Flood proofing buildings and infrastructu (Accommodate)
Pathway 3	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Elevate floor levels of buildings <sup>7</sup> + Flood proofing buildings and infrastructure <sup>5</sup> (Accommodate)	$\rightarrow$	Retreat <sup>8</sup>
Pathway 4	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> ) (Protect)	$\rightarrow$	Enhance New Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Retreat <sup>8</sup>
Pathway 5	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> )	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> )

### **Sub-Area 8A: Paraparaumu Erosion Unit**

Pathway	Short term	$\rightarrow$	Medium term	$\rightarrow$	Long term
athway 1	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Dune Reconstruction <sup>10</sup> (Protect – Soft Engineering)	$\rightarrow$	Beach Renourishment <sup>9</sup> (Protect – Soft Engineering)
athway 2	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Dune Reconstruction <sup>10</sup> (Protect – Soft Engineering)	$\rightarrow$	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Beach Renourishment <sup>9</sup> (Protect – Soft Engineering)	$\rightarrow$	Sea Wall <sup>11</sup> (Protect – Hard Engineering)
Pathway 3	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Dune Reconstruction <sup>10</sup> (Protect – Soft Engineering)	$\rightarrow$	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Beach Renourishment <sup>9</sup> (Protect – Soft Engineering)	$\rightarrow$	Detached Breakwater <sup>14</sup> (Protect – Hard Engineering)
<sup>9</sup> athway 4	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Dune Reconstruction <sup>10</sup> (Protect – Soft Engineering)	$\rightarrow$	Sea Wall <sup>11</sup> (Protect – Hard Engineering)	$\rightarrow$	Retreat <sup>8</sup>
Pathway 5 Southern Id (special)	Sea Wall <sup>11</sup> (Protect – Hard Engineering)	$\rightarrow$	Sea Wall <sup>11</sup> (Protect – Hard Engineering)	$\rightarrow$	Retreat <sup>8</sup>
Pathway 6	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Dune Reconstruction <sup>10</sup> (Protect – Soft Engineering)	$\rightarrow$	Retreat <sup>8</sup>	$\rightarrow$	Retreat <sup>8</sup>

## **Sub-Area 8B: Paraparaumu Inundation Unit**

Pathway	Short term	$\rightarrow$	Medium term	$\rightarrow$	Long term
athway 1	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Enhance Existing Inundation Protection Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)
athway 2	Status Quo <sup>1</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> ) (Protect)
athway 3	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Elevate floor levels of buildings <sup>7</sup> + Flood proofing buildings and infrastructu (Accommodate)
athway 4	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Elevate floor levels of buildings <sup>7</sup> + Flood proofing buildings and infrastructure <sup>5</sup> (Accommodate)	$\rightarrow$	Retreat <sup>8</sup>
athway 5	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup>	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> ) (Protect)	$\rightarrow$	Retreat <sup>8</sup>

## **MCDA** Weighting & Analysis

#	Criteria	Weighting		Score
1	Ecology	3		
2	Landscape	2		1. Highly
3	Te ao Maori Values	3		Undesirable
4	Community, Social &	3		
	Economic Wellbeing		X	2. Undesirable
5	Public Access & Recreation	3		3. Neutral
6	Consenting & Risk	1		4. Desirable
		1		5. Highly
7	Coastal Erosion	3		Desirable
8	Coastal Inundation	3		Desirable

## **Sub-Area 7B: Otaihanga Inundation Unit**

Pathway	Short term	$\rightarrow$	Medium term	$\rightarrow$	Long term
Pathway 2	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Elevate floor levels of buildings <sup>7</sup> + Flood proofing buildings and infrastruc (Accommodate)
Pathway 4	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> ) (Protect)	$\rightarrow$	Enhance New Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Retreat <sup>8</sup>
Pathway 5	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> ) (Protect)	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> ) (Protect)

## **Sub-Area 8A: Paraparaumu Erosion Unit**

athway	Short term	$\rightarrow$	Medium term	$\rightarrow$	Long term
thway 1	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Dune Reconstruction <sup>10</sup> (Protect – Soft Engineering)	$\rightarrow$	Beach Renourishment <sup>9</sup> (Protect – Soft Engineering)
thway 2	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Dune Reconstruction <sup>10</sup> (Protect – Soft Engineering)	$\rightarrow$	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Beach Renourishment <sup>9</sup> (Protect – Soft Engineering)	$\rightarrow$	Sea Wall <sup>11</sup> (Protect – Hard Engineering)
thway 6	Dune and/or Wetland Resilience <sup>3</sup> , Community Education and Emergency Management <sup>4</sup> (Enhance) + Dune Reconstruction <sup>10</sup> (Protect – Soft Engineering) (Enhance)	$\rightarrow$	Retreat <sup>8</sup>	$\rightarrow$	Retreat <sup>8</sup>

## **Sub-Area 8B: Paraparaumu Inundation Unit**

Pathway	Short term	$\rightarrow$	Medium term	$\rightarrow$	Long term
Pathway 3	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Enhance Existing Inundation Protection <sup>2, Dune</sup> and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Elevate floor levels of buildings <sup>7</sup> + Flood proofing buildings and infrastruc (Accommodate)
Pathway 4	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Elevate floor levels of buildings <sup>7</sup> + Flood proofing buildings and infrastructure <sup>5</sup> (Accommodate)	$\rightarrow$	Retreat <sup>8</sup>
Pathway 5	Enhance Existing Inundation Protection <sup>2,</sup> Dune and/or Wetland Resilience <sup>3</sup> and Community Education and Emergency Management <sup>4</sup> (Enhance)	$\rightarrow$	Additional Hard Protection (e.g. Stopbanks <sup>12</sup> , Culverts <sup>13</sup> , Pumpstations <sup>15</sup> ) (Protect)	$\rightarrow$	Retreat <sup>8</sup>

### **Next Steps**

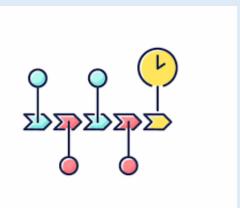
- Add Economic Analysis
- Develop Signals, Triggers and Thresholds
- Finalise Pathways



### **Going Forward**

### Timeline 2024 –

- 3 April Economic analysis
- ➤ Mid-April Final CAP webinar finalise pathways
- April/May Report writing
- Late May Report to Council



# Questions???

