



**Ngāti Kahungunu**  
Ki Tāmaki nui-a-Rua

*Te Ahu a Turanga*

*Cultural Impact Assessment*

*February 2020*

**Report prepared for the New Zealand Transport Agency**

**By Ngāti Kahungunu ki Tāmaki nui-a-Rua Trust**

**Kendrick J. L.**

**Jonathan A.**

**Barrett K.**

**Black M. W.**



**Figure 1:** Part of the landscape to be affected by the new highway on Stuart Bolton’s farm, Tararua District – Photo J. L. Kendrick.

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| Ngāti Kahungunu ki Tāmaki nui-a-Rua Cultural Impact Assessment Report:<br>Te Ahu a Turanga Project.  |   |
| Prepared by  | James Kendrick, Alice Jonathan, and Morry Black |
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## *He Mihi*

Tēnei au, tenei au  
Te hoki nei i taku tapuwae  
Ko te hokai nuku  
Ko te hokai te rani  
Ko te hokai o te tipuna  
A Tane-nui-a-rangi  
I pikitea ai  
Ki te Rangi-tuhaha  
Ki Tihi-i-manono  
I rokohina atu ra  
Ko lo- Matua-Kore anake  
I riro iho ai  
Na Kete o te Wanana  
ko te kete Tuauri  
ko te kete Tuatea  
ko te kete Aronui  
Ka tiritiria, ka poupoua  
Ki a Papatuanuku  
Ka puta te ira tangata  
Ki te whai-ao  
Ki te Ao-marama  
Tihei mauri ora!

*Here am I, here am I  
Here I am swiftly moving by  
the power of my karakia for  
swift movement.  
Moving swiftly over the earth,  
swiftly through the heavens.  
The movement of your ancestor  
Tane-nui-a-rangi  
who climbed up to the isolated  
realms.  
To the summit of Manono  
and there found  
lo the parentless one.  
He brought back down  
the baskets of knowledge.  
The basket called Tuauri,  
the basket called Tuatea,  
the basket called Aronui.  
Portioned out, planted  
into Mother Earth.  
The life principle of mankind  
comes forward into the dawn  
Into the world of light.  
I sneeze, there is life!*

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## *1. Korero Whakarapopoto - Executive Summary*

Te Ahu a Turanga is the traditional name for the Māori land block which the new highway alignment proposed by the New Zealand Transport Agency (NZTA) will pass through. The name has been gifted to the project by tangata whenua. The new highway will replace the old route through the Manawatū Gorge which was permanently closed due to elevated risks from continual erosion and landslides.

The new highway will traverse the Ruahine Range and link Woodville in the Tararua District with Ashhurst in the Manawatū District. Tararua is within the traditional rohe of Ngāti Kahungunu, whose ancestors arrived from Heretaunga (Hastings District) and Tamatea (Central Hawke's Bay) in the 16<sup>th</sup> century. Through conquest, strategic alliances and intermarriage with Māori from other Iwi, the hapū of Ngāti Kahungunu gradually extended their dominance over the eastern side of the lower North Island, and their tribal rohe now extends from Paritu, north of the Mahia Peninsula, to Turakirae (Cape Palliser). Today, the Crown acknowledges the mana of both Ngāti Kahungunu and Rangitāne Iwi within the Tararua District.

Ngāti Kahungunu ki Tāmaki nui-a-Rua Trust ('Kahungunu' or 'NKKTNAR') is the organisation that represents the collective interests of whānau and hapū affiliated to Ngāti Kahungunu within the Tararua District. For Treaty of Waitangi claims we are aligned with Kahungunu ki Wairarapa and together we each have representation on the Kahungunu ki Wairarapa Tāmaki nui-a-Rua Treaty Settlement Trust. Through negotiations with the Crown, an Agreement in Principle was signed in 2016 and we initialled our Deed of Settlement in 2018.

From initial meetings in October 2017 NKKTNAR has continued to engage with NZTA and their consultants, and more recently with the Project Alliance<sup>1</sup>. NZTA acknowledges NKKTNAR as a Treaty partner and we have been included in dialogue, workshops and site visits, and monitoring of some aspects associated with Te Ahu a Turanga project.

Kahungunu ki Tāmaki nui-a-Rua provided conditional support to NZTA for the proposed project at the Notice of Requirement hearings and continue to provide cultural guidance, advice and recommendations for the resource consenting process for some of the enabling works.

This Cultural Impact Assessment (CIA) has been drafted from the review of information supplied by NZTA, from personal observations made following site visits within the NOR alignment, limited monitoring of enabling works, an initial cultural scan from a walkover of the whole route inclusive of the new 'northern alignment', assessment of reports concerning ecological matters supplied by NZTA, and input from our NKKTNAR environmental team.

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<sup>1</sup> The Project Alliance includes NZTA and the successful tender consortium.

There is a constant array of information being supplied by NZTA and their consultants. This includes new information, reviews and amendments/updates to previously supplied information, outcomes from pending Environment Court procedures, and draft assessments of environmental effects.

**Figure 2:** Ngāti Kahungunu ki Tāmaki nui-a-Rua welcoming the Minister of Treaty Settlements for the signing of our Agreement in Principle - Dannevirke Town Hall, 2016.



## *2. Te Whakātūwheratanga – Introduction and background*

2.1 Kahungunu ki Tāmaki nui-a-Rua operate as a Trust and are one of four Iwi organisations engaging with the New Zealand Transport Agency to enable the construction of the new highway - Te Ahu a Turanga project - connecting Woodville in the Tararua District, with Ashhurst in Manawatū.

### *Cultural Impact Assessment Scope*

2.2 This CIA is restricted to the assessment of effects of the project based on information supplied to us by NZTA up to Thursday 20 February 2020 and is reliant on the accuracy of such information. It can therefore be a preliminary assessment only, as the project’s outline plans, and management plans have yet to be drafted/finalised and confirmed. As these will iterate amongst other things, how various project activities will be undertaken and managed, it is difficult to accurately quantify the full range and degree of effects at this stage.

2.3 The detailed design phase still has some way to go with different elements yet to be finalised. The information for Assessments of Environmental Effects to accompany applications for resource consents are still being compiled by the project Alliance team. Recent developments indicate that much of the environmental mitigation package proposed

before the Notice of Requirement hearings, will need to be revisited. Kahungunu ki Tāmaki nui-a-Rua reserve the right to provide additional Cultural Impact Assessment or amendments to the information herein, where NZTA’s previously supplied data, plans, reports and predicted outcomes are amended, or more detailed data on these and their expected effects is forthcoming. The continuing role of Kahungunu ki Tāmaki nui-a-Rua as a partner in the project will ensure that this information is sought and provided.

2.4 The purpose of this Cultural Impact Assessment is to: -

- Articulate historical linkages between Kahungunu and the Tāmaki nui-a-Rua (Taranaki) District, including a large percentage of the new highway route;
- Explain the cultural values of Ngāti Kahungunu ki Tāmaki nui-a-Rua and how they connect with natural resources;
- Document how these values and their attributes are integrated into the tikanga and kawa of our hapū/iwi;
- Summarise the various activities associated with the new highway project – enabling and construction works;
- Understand and quantify the effects of these activities from a Ngāti Kahungunu ki Tāmaki nui-a-Rua perspective;
- Determine and explain how these effects impact on the cultural and environmental values (uāra) of Kahungunu ki Tāmaki nui-a-Rua;
- Provide commentary/discussion on the various proposed NZTA activities and their effects, and
- Make recommendations on how such effects may be adequately avoided, remedied or mitigated.

2.5 It highlights our traditional connections with the whenua (land), the ngāhere (indigenous forest), ngā wai (freshwater resources) and all flora and fauna we connect to through mātauranga Māori me ōna tikanga<sup>2</sup>. Natural resources historically provided abundant supplies of traditional foods, clothing materials, items for adornment, timber for whare and weaponry, along with other essentials for day-to-day survival. Over the years the impacts from colonisation, land confiscation, changes in land tenure and intensive land use have resulted in a partial disconnection of tangata whenua from Papatūānuku and all she provides, and from the traditional belief systems that Māori hold.

Although there will be huge impacts on the landscape and the waterways, the highway project also provides opportunities to rekindle Ngāti Kahungunu tikanga practices, and the resurgence of cultural priorities will benefit our future generations, something they will treasure as our tipuna did in times past.

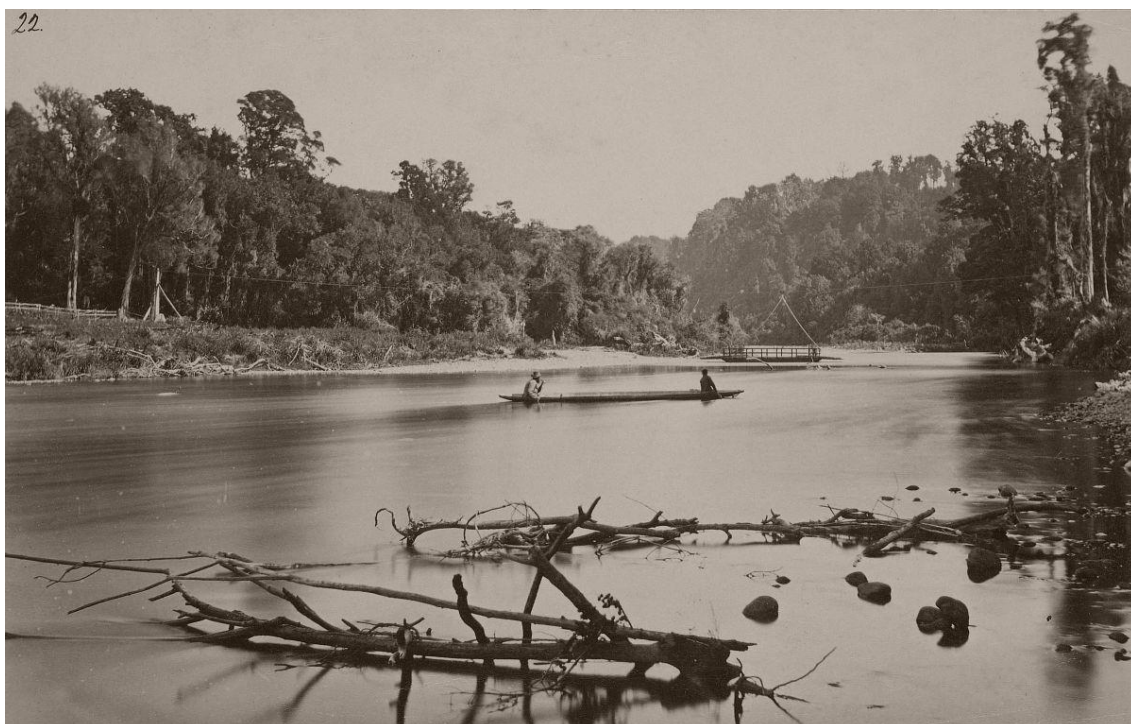
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<sup>2</sup> Traditional and contemporary Māori knowledge, protocols and practices.

2.6 For Kahungunu, the protection of Papatūānuku is of primary importance. She is the personification of the whenua, the earth mother, and provider of sustenance. We are linked to her through whakapapa, and for many Māori, following birth our own whenua (placenta) is returned to her. Our physical bodies return to her after we pass. Our relationship with Papatūānuku is reciprocal. She provided Ngāti Kahungunu with nourishment, welfare, protection, and safety. Te Ahu a Turanga is a part of Papatūānuku that Kahungunu have both spiritual and physical connections too, and protecting, sustaining and nourishing her in return is part of our role as kaitiaki.

2.7 In traditional times the relationships between Māori and Te Taiao (the natural environment) was symbiotic. Tangata whenua, the ngāhere, ngā awa, and all indigenous animal life are connected through whakapapa. Land clearance and wetland drainage, stream diversions and excessive water abstraction have destroyed freshwater fish habitat. Entire forests - the rangatahi of Tāne, were wiped out and many wāhi tapu sites desecrated to make way for large farms and towns. Within Tāmaki nui-a-Rua there is an emphasis on intensive dairy farming and in the area of the new road alignment, pastoral farming. This CIA will enable Ngāti Kahungunu ki Tāmaki nui-a-Rua to explain what impacts this project is likely to have on Papatūānuku, and on those tangata whenua we represent, and articulate how these may be avoided, remedied or mitigated.

**Figure 3:** Ferry across the Manawatū River – circa 1878 – Photo James Bragge



### *3. Te Ahu a Turanga and Māori Land*

3.1 The name Te Ahu a Turanga has been given to the new highway project. It was also the name of a large block of 250,000 acres of Māori land on the western side of the Ruahine and Tararua Ranges, purchased by the Crown in 1864. From the late 1800s there were blocks of land set aside in private ownership, as Māori freehold land, these were outside the purchase of Te Ahu a Turanga block and other large Māori blocks sold or confiscated under various Native Land Acts.

3.2 There are three blocks of Māori freehold land through the Manawatū Gorge; two of these on the eastern side and the other, Parahaki island at the western end of the Gorge, prior to the Pohangina River confluence with the Manawatū River. One of the blocks at the eastern end is Rerenga-o-Whiro of 8.0937 hectares and has 108 registered owners and borders Department of Conservation land. The other is Te Pōtae Reserve with 18 owners and is also 8.0937 hectares.

3.3 Parahaki Island is in the Aotea District and covers 10.1171 hectares. It has 215 registered owners. This block has several burial grounds on it. It is centrally located near other sites of significance to Māori including old pa sites and battlegrounds. Over-looking Parahaki Island is a long-abandoned hilltop pa on the true right bank of the Manawatū River above the railway line. Strategically placed, this pa has immense significance, as it overlooked the river and most of the surrounding land terraces. Several small papakainga were located close by. Following a scrub fire 45 years ago, the man-made terraces on the cliff face were clearly visible. This whole area is a cultural landscape as it contains many wāhi tapu, plus there are remnants of the former indigenous bush cover. Wetland habitat is also of significance to tangata whenua. With the drainage of many of our wetlands, those that are left have increased importance. Just upstream of Parahaki Island is where the proposed highway bridge will cross the Manawatū River, with an eco-bridge winding its way up the valley.

3.4 Preservation was sought for the grove of Swamp Maire near the southern end of the Gorge. During the NOR designation phase, some of these trees were to be felled and Ecological Compensation Ratios were to be applied, however this option has been revisited and a package of measures is being put forward to achieve the OnePlan policy of 'no net loss' for indigenous biodiversity.



# MANAWATU DISTRICT

## AHUATURANGA BLOCK

23 July - 1864

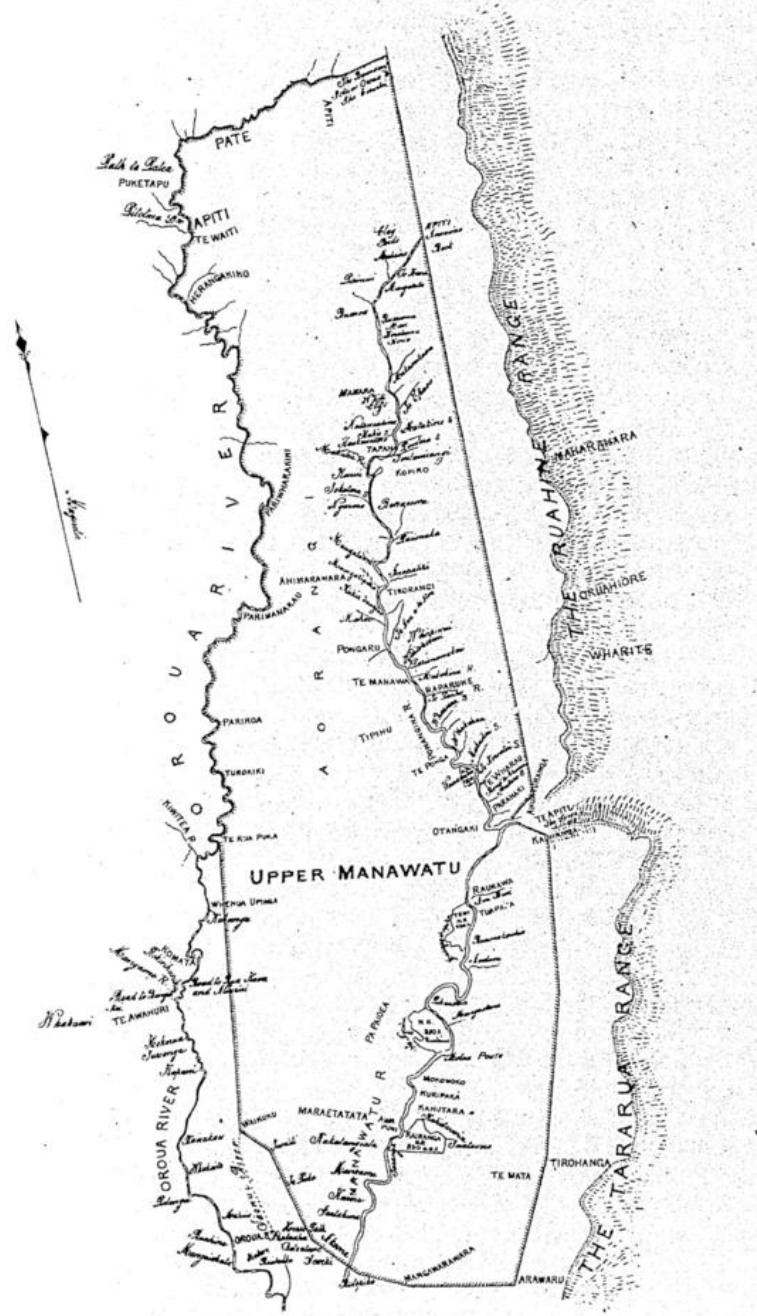


Figure 4: Te Ahu a Turanga land block purchased by the Crown in 1864



## 4. *Whakapapa - Ancestral Links*

4. 1 The name for Te Ahu a Turanga is derived from Turanga-i-mua, the son of Turi, who was the captain of the Aotea waka. Turi was married to Rongorongo, the sister of Rongokāko, who is the grandfather of Kahungunu - the eponymous ancestor of the Ngāti Kahungunu Iwi. Turanga-i-mua's descendants became part of Ngā Rauru Kitahi and lived along the Patea River down towards Waitōtara.

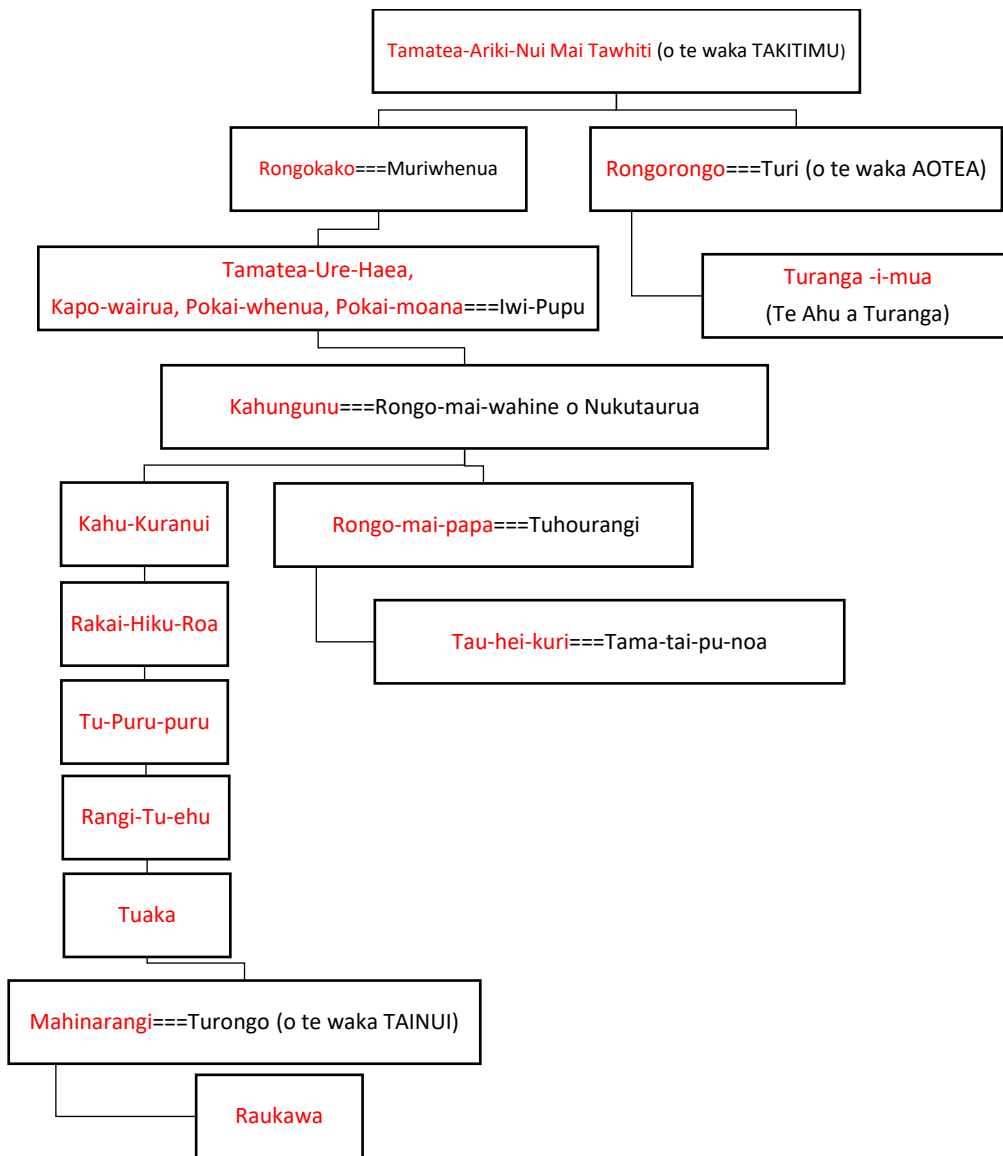
4. 2 Ngāti Ruanui state that when Turi met the commander of the Takitimu, Tamatea-Ariki-Nui at Whanganui, Ratiti, Turanga-i-mua's partner was about to give birth. Tamatea-ariki-nui suggested, '*Call your son after me,*' and the boy was duly named Tamatea-kopiri.

4. 3 Turanga-i-mua was a warrior and went with a rōpu of others on an epic journey up through inland Patea and into Heretaunga where they spent time with whānau, and while there, took part in several skirmishes with rival hapū groups. They then made their way southward and were crossing the old Māori Trail over the Ruahine Range on their way homeward.

*'From Hawke's Bay, Turanga-i-mua made his way south through the other Tamaki district (Seventy-mile Bush) and then ascended the Rua-hine ranges, by the old native path, which, starting near the present town of Woodville, passed to the north of the Manawa-tu gorge, coming out on to the plains of the West coast, at the present village of Ashhurst. It was a terribly rough track as the writer experienced in 1872. Near the summit crossed by the track, Turanga-i-mua was set upon by the tangata-whenua, who were probably Rangi-tāne, and after a great fight he was killed, whilst most of his party made their way home to Patea. After his death, his people stuck into the ground a matipo post to mark the spot where he was killed, and heaped up (ahu) earth around it, and hence arises the name of this spot (and the track) Te Ahu-o-Turanga, or Turanga's mound. His body, however, was afterwards exhumed and taken to Patea for final burial<sup>3</sup>.*

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<sup>3</sup> The Journal of the Polynesian Society Volume 17 1908 Volume 17, No.2 History and traditions of the Taranaki coast: Chapter VIII, Turanga-i-mua's expedition, p 51-78.



**Figure 5:** Whakapapa showing part of Kahungunu’s and Turanga-i-mua’s lineage

*\*\*Red indicates direct descendants of Tamatea-Ariki Nui Mai Tawhiti*

*=== Indicates marriage*

## 5. *Manawhenua*

### 5.1 *'Ko Ruahine te Maunga, Ko Manawatū te Awa, Ko Ngāti Kahungunu te Iwi'.*

The hapū of Ngāti Kahungunu ki Tāmaki nui-a-Rua have enduring historical connections to the whenua around the Southern Ruahine and Tararua Ranges. Having expanded their territory from Heretaunga, down into Tamatea during the 16<sup>th</sup> century, Ngāti Kahungunu then extended their dominance over into Tāmaki nui-a-Rua through conquest, exerting their mana over the much of the whenua that the new highway is destined to traverse.

5.2 Rangikoianake, the tipuna and eponymous ancestor of the Ngāti Rangikoianake hapū built his pa at Te Wheao, in the hills behind Te Hauke. He was married to Te Kaihou, the daughter of Te Rehunga, and they had three children, who were sent to be raised by various factions of Ngāti Kahungunu. This was intended to help unite the hapū amongst whom there was sometimes dissent due to disputes over natural resources and certain events. Te Karaha was taken out to Waimarama to be raised by the Waimarama people, while Hawea te Marama, was brought into the Heretaunga Plains. For Ngai Toroiwaho of Takapau, Te Kikiri o te Rangi came to live within their rohe, eventually becoming their chief and warlord, and protecting the southern and western boundaries of Ngāti Kahungunu from encroachment by other hapū/iwi. This process of whāngai of the children of Rangikoianake and Te Kaihou became known as Ngā Pou Mataara, and helped to unite the hapū in areas of common interest. It is symbolic of placing sentinels or guardians to watch over and protect various areas of interest and value to the hapū collectives of Ngāti Kahungunu.

5.3 The use of taunaha - the placing of names upon the landscape and natural resources – is an action symbolising mana over the whenua. Numerous places were named by Te Kikiri o Te Rangi and others of Kahungunu descent, some reflecting their origins in Hawke's Bay. Several that persist through to today are Heretaunga Road, and the old Heretaunga Māori Land Block that was divided up and balloted out to returning soldiers under conditions relating to clearing and improving the land. There was an old pa located within the Heretaunga Block and over the years numerous Māori artefacts were uncovered. Te Rehunga is another, also a name of one of a hapū of NKKTNAR and given to a settlement near Dannevirke which eventually had a community hall with Te Rehunga Road leading to it.

5.4 Traditional connections to the whenua and its natural resources are celebrated through Kahungunu waiata, haka, whakatauaki and pēpeha. Our ancestors and whānau have often travelled through the Maunga, formerly using the old Māori trails that connected the Eastern side with the West. They gathered kai and collected from the abundant natural resources that the area provided – it being a pātaka kai due to the food that was available here. It provided timber and fibre for whare, for weapons or clothing. Numerous plants were

used for medicinal purposes. Our people continue to hunt and fish within these areas, although to a lesser degree than previously.

5.5 Some whānau connect through whakapapa to one or more hapū and acknowledge Ngāti Kahungunu as their primary iwi, although they may also have connections to other iwi, either through their own familial links or their partners. Their children will then connect to more hapū/iwi than either of their parents. The hapū who affiliate to Ngāti Kahungunu ki Tāmaki nui-a-Rua are listed in Table 1.

| <b>Ngā Hapū o Ngāti Kahungunu ki Tāmaki nui-a-Rua</b>   |                                   |                                      |
|---|-----------------------------------|--------------------------------------|
| Ngāti Rangiwakaewa                                      | Ngāti Mutuahi                     | Ngāi Te Huki                         |
| Ngāti Pakapaka  | Ngāi Te Rehunga                   | Ngāi Tumapuhia-a-Rangi               |
| Ngāti Ihaka Rautahi                                     | Ngāti Hāmua                       | Te Hika o Papauma o Tāmaki nui-a-Rua |
| Ngāi Te Rangikoianake                                   | Ngāti Kikiri                      | Ngāi Toroiwaho                       |
| Ngāi Tahu   | Ngāti Te Whatu-i-apiti            | Ngāti Kere                           |
| Ngāti Tangimoana  | Ngāti Rakaihikuroa                | Ngāti Tu                             |
| Ngāi Te Upokoiri  | Ngāti Hinemanu                    | Ngāti Te Ruinga                      |
| Ngāi Te Hukairangi                                      | Ngāi Te Opekai                    | Ngāti Rangitotohu                    |
| Ngāi Tumokai  | Ngāi Pakaru                       | Ngāti Whiritoroa                     |
| Ngāi Whaiwhati  | Ngāti Pohoi                       | Ngāi Herukoikiri                     |
| Ngāi Tangihia   | Ngāti Te Riponga                  | Ngāti Te Korou                       |
| Ngāti Hinerarau   | Ngāti Koro                        |                                      |
| Ngāti Kaihi   | Ngāti Kirikohatu                  | <b>Te Ahu a Turanga</b>              |
| <b>Ngā Tipuna o Ngāti Kahungunu ki Tāmaki nui-a-Rua</b> |                                   |                                      |
| Pāora Rangiwakaewa                                      | Wiremu Potangaroa                 | Wiremu Rautu                         |
| Aperahama Rautahi                                       | Tipene Mātua                      | Hoera Potangaroa                     |
| Haami Potangaroa  | Hoera Rautu                       | Turake                               |
| Ngāmana   | Piritarata                        | Hingahere                            |
| Tūpahi  | Rangihirawea                      | Te Maero                             |
| Pokakiri  | Rāpana                            | Maata Te Ope Kahu                    |
| Kōa   | Turangei                          | Te Matau                             |
| <b>Ngā Marae</b>  |                                   |                                      |
| Tahoraiti   | Aotea (Makirikiri)                | Kaitoke Memorial Hall                |
| Whiti Te Ra (Poherau)                                   | Te Ahu a Turanga                  | Te Kōhanga Whakawhaiti               |
| Papauma   | Te Aroha a Aohanga (Ngā Hau e Wha |                                      |

**Table 1:** The key hapū and tipuna of Ngāti Kahungunu with mana whenua and mana moana rights and interests in Tāmaki nui-a-Rua and the project area.

5.6 Some of these hapū originate from Heretaunga, Tamatea or Ahuriri, and further back in time, into Inland Patea. Other hapū have both Ngāti Kahungunu and Rangitāne origins from when Kahungunu asserted their dominance in Tāmaki nui-a-Rua and Wairarapa through warfare and strategic alliances.

**Figure 6:** Tamariki of Tāmaki nui-a-Rua practising kapa haka



## *6. Ngā Vāra o Ngāti Kahungunu ki Tāmaki nui-a-Rua*

### *Wairuatanga*

6.1 Wairuatanga is the action that enables the wairua, the spiritual value and benevolence from Io Mātua that penetrates physical existence, to direct and influence how tangata whenua do things. Containing a strong ethical component, it guides behaviour and affects how tangata whenua interact with the natural world, with each other, and towards manuhiri and other communities. For tangata whenua, it is also reflected in a reverence for the natural environment and all it contains, and an appreciation for the interconnectedness within natural ecosystems. Wairuatanga finds expression through karakia, where it acknowledges the priority setting and order from the divine, down through the Atua, into the physical world and tangata whenua.

6.2 The reciting of karakia over an area or site to impose a state of tapu can resonate through time, while the placing of rāhui (temporary spiritual and physical restriction), assists in upholding cultural values and traditional belief systems, e. g. through allowing time for a natural resource to recover its vigour. Karakia can also be a blessing to guide actions and outcomes when endeavouring to improve a natural resource. When it is part of a process

learned from one's tīpuna, karakia can be very empowering. The concepts of tapu, rāhui and noa, are all part of Wairuatanga, and influence other cultural values including Mauri, Kaitiakitanga and Manaakitanga.

#### *Consideration for Wairuatanga*

6.3 Where former sites of Māori occupation exist within the whenua, where battle sites, pa sites and burial sites are located throughout Te Ahu a Turanga or on nearby land, then appropriate procedures and care should be undertaken. All archaeological sites in Aotearoa are protected through the Pouhere Taonga Heritage New Zealand Act, whether such sites are recorded or not. The ancestors of Ngāti Kahungunu and other iwi/hapū journeyed throughout the Ruahine Range on their hunting expeditions, as war parties and as explorers. There are numerous records of battles between rival hapū and iwi groups.

6.4 For Ngāti Kahungunu, relevant acknowledgment and appropriate protocols and behaviour around such sites is a cultural imperative. This applies to all land disturbance, earthworks and excavation. Even where it is considered 'low-risk', it would be useful for our cultural monitors to be present to observe operations and to help ensure cultural safety.

#### *Atuatanga*

6.5 Atuatanga is aligned with wairuatanga. It is the value that manifests in the relationship between tangata whenua and the Atua<sup>4</sup>. It prescribes power, control and energy towards specific Atua, that each have responsibility for different realms in the physical world. Within the marine and freshwater domains Tangaroa plays a leading role, along with Tawhirimatea (Atua for weather, wind and storms). The relationship between these two creates the environmental conditions under which specific weather patterns prevail, where flora and fauna evolve with the collaboration of Tāne-Mahuta (Trees, forests and birds).

6.6 Other Atua to consider include Rongo-ma-tāne and Haumia-tiketike who have responsibilities over wild plants and resources that are used for food and/or medicine. Often, where there has been a clearing of indigenous plant cover, the first plants that regenerate are the healing plants, as Papatūānuku requires them to repair the whenua and provide shelter for larger species that follow. Seeds can remain dormant in the whenua for several years, awaiting the right conditions to prevail so they can germinate. In the Māori world this is seen as co-operation between Papatūānuku where they will be nurtured and grow, Ranginui who provides the rainfall, and then the alignment with the Maramataka that triggers the growth.

#### *Consideration for Atuatanga*

6.7 The Atuatanga value helps bring order and synchronicity to the manner in which environmental and cultural matters are practiced, evaluated or applied. It assists in

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<sup>4</sup> Within western interpretations, 'Atua' has been given equivalency to 'God', or 'Gods'. Within the Māori world-view they are more spiritual guardians, the children of Ranginui and Papatūānuku, linked to us through Whakapapa and responsible for different realms within the physical world.

understanding how different environmental factors are perceived within the Maori worldview and how they are often connected. For Ngāti Kahungunu ki Tāmaki nui-a-Rua, it underpins a series of relationships and responsibilities that are more easily understood, as they are reflected from within our own reality.

| Atua            | Domain or Realm   |
|-----------------|---|
| Ranginui        | Celestial parent; Sky father; - Above the earth, ozone, cosmic Evaporation/cleansing  |
| Papatūānuku     | Female parent; Earth mother; - Nurturing, providing, whenua, soils, humus, conceptual, synchronicity – alignment of energies and purpose  |
| Ruaumoko        | Earthquakes, Geology: - Volcanoes, rocks and gravel, strata, tectonic uplift, land formations, eruptions, ash soils, silts and sediment in the awa; Layers of different strata in the whenua - aquifers |
| Tāne Mahuta     | Forests and trees; - Birds and other life within the ngāhere<br>Riparian margins, leaf litter, humus, bacteria, fungi, natural nutrients, Rongoā,   |
| Tangaroa        | Seas, Rivers, lakes: - Life forms within these; Connectivity between surface and ground water; Tuna (eels), kokopu, koura, nga ika; diadromous species  |
| Tawhirimatea    | Weather; Wind; Storms – Weather patterns, climate, seasons – Hine-koanga – Spring - rejuvenation/renewal; Hine-hotoke - Winter - frosts (cleansing power), dormancy, rest                               |
| Rongo-ma-Tane   | Cultivated foods and medicines; Kumara, and rewai - other taonga species  |
| Haumia-tiketike | Wild foods: From the ngāhere, from the river margins, he manu, ngāngara   |
| Tumatauenga     | War and man; Utu – reciprocity; Provision for rekindling, restoration of balance, moderator   |

**Table 2:** List of Atua and their realms of responsibility in the physical world.

### *Whakapapa*

6.8 Through Ranginui, Papatūānuku and their numerous offspring, the spiritual whakapapa linkages within Te Ao Māori are acknowledged and reflected through tikanga Māori processes. At its core, Whakapapa is a system of relationships. The Whakapapa value is central to the Mana Atua – Mana Tangata relationship<sup>5</sup>, providing a clear line of priority and direction. Whakapapa underpins both the spiritual and physical realms. Usually applied to the genealogy of tangata whenua individuals or groups, it also has resonance and application across different realms and situations.

<sup>5</sup> Regarded by many tangata whenua as a natural progression of whakapapa that links us to the spiritual world



### *Consideration of the Whakapapa Value*

6.9 This value is particularly important where tangata whenua rights and interests are concerned, with Whakapapa defining both who we are and how we relate to each other, and our relationships with Papatūānuku and our rohe and whenua. Whakapapa assists in determining mana whenua status, with many Māori today having whakapapa linkages to two or more hapū or iwi, but often identifying with one main entity.

6.10 In terms of habitat and the expression of respect and provision for indigenous species, whakapapa also relates to connectivity on multiple levels. Many indigenous freshwater fish species are diadromous, spending part of their lives in the marine or estuarine environment, before heading inland to mature, then returning to the coastal marine area to migrate or spawn. While still at a sensitive and vulnerable life-stage their young then head back upstream from the estuaries running the gauntlet past numerous predators to gain access to spring-fed streams and headwaters or places where there is indigenous bush cover.

6.11 For the whakapapa of these taonga to remain intact, adequate provision is required for each life-stage and what they require in terms of sufficient habitat and flow at crucial times of the year for them - to migrate both upstream and downstream, and complete their life-cycle. Several indigenous fish species are regionally threatened, vulnerable or have declining status in the New Zealand Threat Classification lists. Amongst these are the short-jaw kokopu and inanga. In some areas koura (freshwater crayfish) and the long-fin tuna are also threatened due to habitat loss.

### *Whakapapa o te wai*

6.12 The whakapapa of water is expressed through the water cycle and the Ki Uta ki Tai<sup>6</sup> principle - the connectivity between freshwater environments, emerging from our Maunga (mountains), supplemented by groundwater springs from the underlying aquifers and from tributaries, travelling down to the sea. Natural processes like fish migration rely on the whakapapa of the waters in our rivers and streams remaining connected and intact. Disruption to flows through stream diversion, obstacles in riverbeds or water abstraction are threats to the whakapapa of freshwater resources. Alterations to hydrological function through excavation can result in disruption in natural character and flow paths.

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<sup>6</sup> Usually interpreted as 'from the mountains to the sea' and being considered for application nationally through the National Policy Statement for Fresh Water Management.



### *Whakapapa o te ngāhere*

6.13 This relates to another symbiotic relationship, where the tuakana-teina principle<sup>7</sup> applies. The smaller growing native shrubs have a shorter lifespan than the taller growing species like tōtara, kahikatea, rimu and black maire. While the shrubs (mānuka, akeake, horopito, harakeke, karamu, etc) are growing to maturity, they provide shelter to the seedlings of the larger species until the larger ones are established. Eventually the taller varieties outgrow the others, which go into decline and eventually die off and they get overtaken by the forest giants, which then feed on the rich humus provided by the decaying shrubs.



**Figure 7:** Drilling rig near the railway line at the western end of the Manawatū Gorge. In the background is indigenous bush cover with many varieties of native plants of various ages and sizes – Photo J. L. Kendrick.

6.14 Whakapapa is a cultural value that not only applies to mātauranga Māori me ōna tikanga, (traditional Māori knowledge and practises), but to the stories and kōrero on which they are based. Mātauranga Māori has developed since the Atua descended into the realm of the living. It is the historical and cultural elements that combine to support whānau and hapū identity, helping present generations to understand their origins and their role and responsibilities for now and for future generations.

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<sup>7</sup> Where the older “tūākana” usually a relative, looks after the younger “teina” during their developmental phase.

## *Mauri*

6. 15 Mauri comes from the realm of the creator. It is a spiritual value that expresses itself within the natural world in a particular manner. In the Māori world-view, all-natural things have Mauri, both animate and inanimate. Commonly referred to as the life principle, human activity can diminish or destroy Mauri or assist in its regeneration and enhancement. Tangata whenua sometimes separate Mauri into different types depending on context, or the action it performs<sup>8</sup>.

6. 16 Within marine and freshwater environments and in the ngāhere, the manifestation of Mauri<sup>9</sup> is seen in healthy habitats including the water and all associated natural resources, and healthy and abundant taonga species. Mauri is transmitted as an energy flow, either towards or away from something as part of a natural cycle or process.

6. 17 Mauri can also be considered within a construct of layers. For example, if the Mauri of a specific plant is looked after, then the individual plant will contribute to the well-being of the adjacent plant community. Over time it provides habitat and sustenance for insects and birds, which feed on it or distribute its seeds over a wider area, thus spreading the Mauri from the healthy plant into adjacent locations. A common whakatauaiki is '*He Mauri or te whenua, He Mauri o te tangata*' – The health of the environment is connected to the health of the people. In this context it relates to both spiritual and physical health.

### *Consideration for Mauri*

6. 18 In the Ngāhere – Respect for the symbiotic relationships between plant species and the birds and insects, for the manner in which the indigenous forest naturally grows as a community of plants so the Mauri of the whole benefits from the collective inputs. Care and respect for the sacredness of Papatūānuku, for the waters on which she relies, and acknowledgment of the interconnectedness between the whenua and the different sources of water, where they help to replenish and sustain each other's Mauri.

6. 19 Some aspects of Mauri will require enabling throughout the project duration and following its completion. The monitoring of the state of Mauri pre, during and post project completion can help ensure it remains intact, or where it is weakened or diminished, there should be a requirement to enable activities to restore the Mauri to an acceptable level. Kaitiaki are the guardians of Mauri, as it is a relationship instilled within kaitiakitanga.

6. 20 Minimal use of contaminants or toxins that weaken or destroy the Mauri of the whenua. Where biosecurity issues arise, the position of Kahungunu is that toxins for mustelids, possums or rabbit control should be used as a last resort, particularly where other

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<sup>9</sup> Mauri ti aki, Mauri tuku, Mauri whakahaere, Mauri here: Refers to different actions – the guarding and nurturing of Mauri, Mauri within something or someone, Mauri moving outwards or towards etc.

options are available. Our expectation is that Kahungunu will be included in biosecurity programmes with the project area to uphold or replenish the Mauri within the natural environment. The interaction between plants, birds, fish and humans can also enhance Mauri due to the co-operation, synergy and goodwill that is built around positive action.

### Rangatiratanga

6. 21 Historically Kahungunu as tangata whenua have held mana whenua/mana moana over the lands and waters of Tāmaki nui-a-Rua. This is expressed through whakapapa connections and relationships and is central to our iwi identity, to Kahungunutanga and the well-being of our whānau and hapū. Kahungunu has a long history of participation in traditional and cultural practices from our occupation and engagement within our rohe. Advocating for and supporting a healthy and vibrant community and a healthy environment through traditional and contemporary practices are central to exercising rangatiratanga.

6. 22 Rangatiratanga should not be used as a means to exclude others. For Kahungunu, the emphasis is on the duties and obligations involved in its expression. Underpinning Rangatiratanga are other values such as whanaungatanga, manaakitanga and kaitiakitanga which recognise the importance of stewardship, cohesiveness and reciprocity.

### Considerations for Rangatiratanga

6. 23 Rangatiratanga is the expression of mana, traditional authority and control. It allows for self-determination and the making of decisions over our taonga. In terms of Te Ahu a Turanga it is a shared responsibility where through Te Tiriti and its principles we have a shared role, a partnership with the Crown and NZTA, where it is expected that the mana of Kahungunu will be respected and enabled. This particularly applies to natural resources, the taonga over which we are kaitiaki. Through Rangatiratanga, Ngāti Kahungunu ki Tāmaki nui-a-Rua seek to ensure that we are fully involved in all aspects of the highway project that impact on these taonga, and on our whānau and hapū members.

### Wāhi Taonga

6. 24 Wāhi taonga are places or areas that are highly valued. They collectively comprise all those places that are culturally, spiritually, physically and historically significant to Kahungunu, and include those places that provide natural resources that have been used traditionally by our ancestors and our whanau. Such areas or sites include wāhi tapu, whether identified in district and regional plans or not and the following: -

- Former pa sites and kainga;
- Battle sites where the blood of Kahungunu tipuna has been spilt;
- Ara tawhito – Old trails/pathways where our tipuna travelled;

- Mahinga kai sites and areas – that contain natural resources of value to tangata whenua;
- Stands of native bush and wetlands areas that provide timber, plants for rongoā and for weaving and other cultural uses;
- River reaches and streams that were the dwelling places of taniwha/kaitiaki;
- Rivers and streams that contain natural food resources

6. 25 Wāhi taonga can hold both tangible and intangible values – values that transcend the generations and are passed on to future generations. The location/nature of wāhi taonga can sometimes be highly sensitive and may only be known by a small number of individuals. How this information is kept and who has access to it, is a matter of great importance to Kahungunu. These areas typically contain a broad category of resources used in cultural practices and activities of tangata whenua. Natural resources are also connected to the whakapapa of the natural world, and the whakapapa of our whānau/hapū.

#### *Considerations for Wāhi Taonga*

6. 26 An adequate level of care and protection for wāhi tapu and for areas that contain natural resources of value to Kahungunu. For any area of cultural significance that is uncovered during project enabling works or construction activities, these should be addressed on a case-by case basis, depending on the significance of the find. Should a major archaeological site be uncovered, then potential diversion around the site may be necessary. In some instances, i.e. where cultural artefacts are uncovered then relevant protocols should be undertaken in accordance with an Archaeological Approval, or cultural mitigation provided. In terms of interference with habitat actions could be undertaken to offset or replenish taonga species where their habitat has been destroyed or partially destroyed, or disruption caused to their normal behavioural patterns.

#### **Whanaungatanga**

6. 27 Whanaungatanga is the act of nurturing and caring that emerges from whanau interaction with each other, and the synergy which binds whanau together. It can be strengthened through maintaining connections with whānau members, especially with those who may not live in close proximity. It builds on relating to whanau by identifying and confirming in culturally appropriate ways, whakapapa linkages, past heritage, points of engagement, or other relationships. Establishing whānau connections is kinship in its widest sense. It reinforces the commitment that members of a whānau have to each other while also reminding them of their responsibilities and obligations to all. Whanaungatanga can build family strength and resilience, where whānau members help each other out.

#### *Considerations for whanaungatanga*

6. 28 In terms of Te Ahu a Turanga, tap into the collective whanau knowledge of whānau members who have worked, hunted and recreated within the area over multiple generations.



Consider building on opportunities that can contribute to both the cultural health of the environment through mitigation pathways, and whānau well-being that can augment this. This may include training for employment, health and safety training as well as sharing experiences and knowledge with each other. It would also be helpful to maintain a watching brief for potential employment or environmental/cultural mitigation opportunities, so when they arise whānau members are well prepared in advance.

### Kaitiakitanga

6. 29 Kaitiakitanga lies at the heart of Māori culture. It can be defined as the inherited responsibilities and kaupapa, passed down from tīpuna, for each generation to take care of our taonga tuku iho<sup>10</sup> and each other. It is an obligation of whānau, hapū and iwi to look after and protect the spiritual and physical well-being of natural resources within our rohe. Kahungunu whanau are kaitiaki within each of their hapū rohe and carry the responsibility for ensuring that the mauri of the natural world is maintained or enhanced so that our natural resource base and the areas that contain our taonga remain sound.

6. 30 The practices associated with kaitiakitanga are closely linked with mana and self-determination. Mana whenua is derived from whakapapa and identity, and from connection to the land. At its core is the upholding of the sacred elements important to Te Ao Māori, and to maintaining the ability to carry out kaitiaki responsibilities individually or collectively. It is important that all opportunities to restore the function and application of kaitiakitanga, to ensure the benefits accrued from the natural world, will be available to future generations. In some ways, the traditional knowledge systems aligned with kaitiakitanga have been marginalised for many and diverse reasons. With the passing of our elders much of their traditional knowledge has been either lost or hidden. It is important that Kahungunu address the need for succession planning so that the kaitiaki role is strengthened while maximising the use of mātauranga Māori. Kaitiakitanga includes the upholding and safeguarding of Mauri, so that the health of natural resources is sustained.

6. 31 Within our historical traditions, ‘ira tangata’ is the concept whereby the wairua flows through us all, resulting in a collective wisdom that we share. It connects to Kaitiakitanga through whakapapa and required actions - to nurture and watch over our tūākana – our older siblings, being the trees of the forest, in addition to the birds that reside in the forest, the waterways and the fish that inhabit these, as in the Māori worldview we whakapapa to all these living things.

6. 32 Kaitiakitanga gives first priority to the resource itself, and what it requires to stay healthy in terms of spiritual and physical health, including healthy habitat, and then progresses to species health and abundance. This acknowledges the need to care for mahinga kai (food gathering areas in the broader sense), mahinga mātaitai (seafood gathering places

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<sup>10</sup> Taonga tuku iho – literally ‘God-given treasures’.

and areas), and the food resources and other taonga they provide. The active protection and nurturing of natural resources are also an expression of mana. Kaitiakitanga is a multi-generational approach to ensuring resource provision for now and for those generations yet to come.

#### *Consideration for kaitiakitanga*

6. 33 Access to enable kaitiakitanga has not always been forthcoming to date. Apart from provision for a walkover of the first proposed highway route, then the northern alignment, there have been limited opportunities to observe some of the activities that are currently underway. We have been able to observe and provide feedback on some of the locations/operations for geotechnical investigations and inspect where some stream/river crossings and bridge works are proposed. In addition, our monitors have been shown where most of the access tracks are intended to be constructed.

6. 34 More detailed provision for baseline cultural monitoring by our assessment rōpu has not yet occurred so it is difficult to provide fully informed assessments of the cultural health of streams, their riparian margins, and the likely effects from proposed activities. Reports on ecology have been written by NZTA's consultants following their assessments, which are primarily from a western science perspective. For Kahungunu to properly assess the cultural effects of the numerous proposed activities on streams and their riparian margins, and on the indigenous forest cover would require access for cultural health monitoring of existing cultural health and 'state', and periodic cultural monitoring thereafter so the whānau of Ngāti Kahungunu ki Tāmaki nui-a-Rua can more accurately quantify effects on our cultural values in terms of terrestrial and aquatic environments. This is anticipated to take place prior to construction.

#### *Ki uta ki tai*

6. 35 The Ki uta ki tai value relates to an ethos and holistic approach to management of a river or stream catchment from the Māori perspective. It considers the energy flow of a river, and all impacts including cumulative impacts, from a river's sources down to the sea. There is a priority within tikanga Māori that acknowledges the flow of energy from the maunga where it originates, down through the tributaries into the mainstem of a river. As with many iwi/hapū this is celebrated through our mihi and pēpeha, where the Atua come first, our Maunga second, our river third, then our elders, and ourselves last. This is important in terms of cultural relevance in consideration for the environment that provides for us and within which we live, for acknowledgment of hydrological setting, variations in habitat provision, and the seasonal triggers that taonga species rely on to enable them to utilise different parts of a catchment.

### *Consideration for ki uta ki tai*

6.36 Minimal disruption to the existing natural character of streams and rivers, including their banks, native species of flora and fauna already present, and protection for indigenous biodiversity quantum. Where interference with the status quo is projected, an adequate level of remediation/mitigation.

6.37 Within the hydrological setting there is planned interference through stream diversions and running streams through infrastructure which will impact on natural flow patterns, water quality, and underground flow paths. Detailed design to reduce flood risk, compensate for alterations to the natural flow and include appropriate management of cumulative adverse effects has yet to be carried out.

## *7. Ngā Wai and Ngā Awa*

7.1 Waiora – the life-giving waters. The significance of water to Māori cannot be overstated. It cleanses itself through time and distance, through the water cycle; The constancy of evaporation and rainfall purifies it, taking wai from the whenua and the oceans, and returning it re-energised. All life requires water to survive – humans, animals, plants and microscopic organisms. It exists above the earth, upon the whenua and below it, and is a constant presence around us.

### *Ngā Wai – The source of life*

7.2 Wairua – the spiritual essence, where wai is elevated to the highest level. Signifying the waters both above and below us, within our bodies and outside of us. Often when tangata whenua and manuhiri first meet, one of the first questions asked is ‘Ko wai koe?’ In the normal course of meeting someone it is asking who are you? However, in the literal sense it means ‘from where do your waters flow?’ The question enquires into one’s whakapapa, physical origins and rohe, but also their ancestral river. The process of inquiry helps determine how Māori interact, how we relate to each other.

7.3 The way that Ngāti Kahungunu ki Tāmaki nui-a-Rua view ngā wai (water) is culturally unique. Although other iwi and hapū have similar values associated with water, they are expressed differently, as each iwi or hapū collective have their own histories and kawa (cultural protocols) that underpin their interactions with taonga tuku iho, including with freshwater. Some of the key considerations are prescribed here so that NZTA may gain an understanding and awareness of the cultural values that we associate with freshwater in terms of the management of water resources affected by the project.

7.3 Te Tiriti o Waitangi guaranteed Crown protection of Māori customs and cultural values – a right that extends to the protection of tino rangatiratanga and our relationships with ngā

wai. These rights have not always been upheld by local or central government and iwi/hapū gradually lost influence over decisions that impacted on our freshwater resources. Greater acknowledgment of iwi rights and interests in freshwater is emerging as a result of Treaty claims and ngā wai remains an integral part of our existence - a taonga tuku iho and central to tangata whenua customs and traditions.

7.4 Wai is a living taonga, a sacred treasure; The tears of Ranginui, and the lifeblood of Papatūānuku. It flows through the whenua via underground pathways and above the ground creating wetlands, streams and rivers. Emerging from our maunga waterways connect the mountains with the sea. For Ngāti Kahungunu ki Tāmaki nui-a-Rua the spiritual and physical relationship with our water is intertwined – both elements are essential for the health of our whānau and hapū.

#### *Ancestral relationships*

7.5 We have a duty to our ancestors and to those yet to come, to take care and protect ngā wai. Our awa previously provided natural pathways for accessing inland areas through the dense bush, where many other natural resources could be gathered. From mountain streams, wetlands, river channels and estuaries our whānau used all parts of the rivers at various times of the year. Larger rivers have iconic value, and our cultural and traditional relationships with them have been upheld. Maintaining the life supporting capacity of the Manawatū and its tributaries remains a priority to NKKTNAR today.

#### *He Mauri o te awa*

7.6 Mātauranga requires kaitiaki to safeguard the Mauri of the awa so it will continue to provide for us. Continuing to use customary practises, acknowledging ngā atua kaitiaki before utilising resources connected with wai, and working to enhance the health of our awa will ensure that it continues to provide us with physical and spiritual sustenance. Mauri gives health, natural form and vitality to our rivers and streams. Wairua is the origin of Mauri, as the spiritual and physical elements of wai are joined together by the life force. Therefore, protecting the Mauri and the Wairua of water is the primary management principle for NKKTNAR.

7.7 Kahungunu use tohu (cultural signs or species) as indicators for measuring the cultural health and well-being of water, the terrestrial environments and their constituent parts, and for assessing whether the mauri of each is being enhanced or diminished. The health of a water body is also an indication of the respect given to ngā atua kaitiaki (the spiritual guardians), and to other tangata whenua values. Where water quality has been compromised by human activities, this can have a negative impact on both the mauri of the water and the mauri of our whānau. Ngāti Kahungunu support enhancing the mauri to a level where physical and spiritual health of our waterways are upheld. Protecting the mauri of wai is vital for ensuring it can sustain everyone who lives in the rohe (district).



### *He Taunaha o ngā wai*

7.8 As with other features in the landscape, the names given to the Manawatū River's tributaries are an indication of mana and control over them, and signal ancient occupation of these catchments and the natural resources they provided. The taunaha are evidence of former occupation and importance from our tipuna. Larger rivers and streams were also highways for pre-European Māori, usually allowing for faster travel than through the dense bush. Archaeological research within Tāmaki nui-a-Rua indicates that most of our Pā sites and kainga were also located in close proximity to waterways.



**Figure 8:** The confluence of the Pohangina River with the Manawatū. The Tokeawa and Te Awaoteatua Streams feed into the Pohangina River – Photo J. L. Kendrick.

7.9 The Manawatū is one of the world's more unusual rivers. Its major tributaries drain both sides of the Ruahine and Taranaki Ranges. It starts in Ngāmoko (Ngāmokopuna) an area in the foothills behind Norsewood. Here at the base of the Ruahine it rises from one side of a hill and flows east before trending south, then west to flow through the Manawatū Gorge. On the other side of the same hill, is the source of the Tukituki Awa, which flows eastwards then North to discharge into Hawke Bay. The whakapapa connections between these two rivers is reflected in the whakapapa of Ngāti Kahungunu whānau from Tāmaki nui-a-Rua, Tamatea and Heretaunga.

7. 10 When J.T Stewart<sup>11</sup> first saw the lower reaches in 1858, the Manawatū River was a dark brown colour, the water having seeped through thousands of acres of forest-clad land. In places it was 300 metres wide (rather than today's average of 150) and was shallower and slower flowing. Today parts of the riverbed are more than three metres below what they were in 1935, largely because of the extraction of shingle and the scouring of the riverbed from runoff and flood flows due to loss of the buffering effect from the former wetlands and forest cover in the ranges.

7. 11 On the journey from its source, the Manawatū takes in the combined flows from the Tiraumea which rises in the Puketoi Range, the Makākahi and the Mangatainoka Rivers, and the flows from the Mangahao that drain the northern Tararua Range. Other tributaries from north-east of State Highway 2 contribute to it as well, the Manga-atua, the Manga-manaiā, the Tāmaki and the Manga-papa. These each have smaller tributaries that flow from the eastern side of the Ruahine or emerge as springs from the extensive groundwater resource. that originates in the ranges.



**Figure 9:** Horse and buggy crossing the Manawatū River with Ferry Reserve in the background, still covered in mature forest – Photo by James Bragge, circa 1878

7. 9 There are five tributaries of the Manawatū River that we will look at more closely to provide context and discuss activities and processes related to them. They are the Manga-

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<sup>11</sup> John Tiffin Stewart (1827 – 1913), a government surveyor who surveyed the Ahuaturanga Block and the route for the Manawatu Gorge, as well as designing the early settlement of Palmerston in the Papaeoia clearing.

atua, Manga-papa, Te Toke-awa, Te Awa o te Atua and Manga-manaia Streams. All of their catchments are within or adjacent to the proposed highway route and referred to as places of significance to the hapū that occupied those areas. The names evoke the connections and interdependence of two branches of knowledge – Te Kauae Runga and Te Kauae Raro<sup>12</sup> - the celestial with the terrestrial, and where acknowledgement is given to the Divine and its state of tapu. In places like these, tūāhu (ceremonial places, altars or shrines) would be erected for rituals to be carried out to honour the Atua.

7. 10 The area these streams are located in and their proximity to each other indicate an area of strong cultural/spiritual significance, with the whakapapa from the physical Papatūānuku (Manga-papa) through to te tipua (the spiritual). Papatūānuku e Takoto Nei or Earth Mother, was entwined with her husband Ranginui e tū iho nei our Sky Father in a loving embrace. Living in between were their children or ngā Atua. In time, some of the Atua were not happy with their current reality and wished for change to their living conditions - described as being hot, sweaty, dark and uncomfortable with little potential. They longed for a world of light.

7. 11 Tāne-nui-a-Rangi was the Atua that called a hui of all his siblings. He proposed that they change their situation by separating their parents. Some of his tūākana (older siblings) supported his proposal while others were abhorred at the idea. Based on their discussions Tāne decided to force and push his parents apart. After a tense struggle, they were separated and in came the first rays of light, hence Te Ao Marama - A new reality, one with potential. He proclaimed that it wasn't about the separating of their parents but the opening of the darkness to let in the light. With this new reality came its own set of issues. The yearning of the two parents (Ranginui and Papatūānuku) for one another is how Māori describe how the natural order and systems work. The tears of Ranginui for his partner are the rains, the mists rise from the whenua are from Papatūānuku, while the rumblings of their unborn child herald Rūaumoko, the Atua of Earthquakes.

#### *Atua*

7. 12 The offspring of Ranginui and Papatūānuku, were all male. Tūmatauenga is often described as the Atua of war and conflict. There is also a sense of utu - reciprocity and balance that he provides and we acknowledge him for his courage. In the Māori world-view, all things, all phenomena are Atua-inspired, it is because of this 'tapu' aspect that rituals are performed to acknowledge such sacredness. The term 'Atua' refers to 'something extraordinary, profound and divine' and we must remember all the female deities as well. Tangaroa is the Atua of our waterways, both freshwater and marine, and all the life within them, while Hinemoana (often abbreviated to 'Moana') is the sea. Ira Atua or the Atua principle, reminds us that they are immortal.

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<sup>12</sup> Literally 'the upper jaw and the lower jaw' they are used in reference to how the celestial knowledge of the Atua are connected to and inform the mātauranga Māori (traditional Māori knowledge) tikanga Māori and kawa within the terrestrial or earthly world.



## *Manaia*

7. 13 The manaia is an entity from within Te Ao Māori, is held in the highest esteem and belongs to the world between the spiritual and physical realms. It is shown in various forms depending on tribal affiliation, and often depicted as having a beak-like mouth, a sinuous body and fish-like tail. Manaia symbolise collective knowledge and wisdom from the air, the earth and the water. They are sometimes recognised as kaitiaki or caregivers that patrolled waterways. Like Taniwha, Manaia would prescribe how people should behave in certain places, and require the utmost respect be given to the Mauri or the life-force of places and things.

7. 14 The sacred nature of the taunaha bestowed upon these streams emphasises how important they were to Ngāti Kahungunu and other iwi/hapū and indicates we should treat them with the utmost respect when making decisions that could affect or alter their physical body or their spirit. Disrespect within the spiritual sense can invoke calamity, while good cultural practice means we will make informed decisions that are more likely to meet with success.

7. 15 The new road alignment will replace the current route through the Manawatū Gorge due to growing concerns on risks to human health and safety. This is particularly due to the impacts of continual groundwater seepage that destabilise the hillsides near the site named ‘Kerry’s Wall’. The wall is directly across from where one of the upper catchments’ discharges down a series of waterfalls and into the Manawatū River.



**Figure 10:** Kerry Robb who has worked for NZTA standing at ‘Kerry’s Wall’ – Photo J. L. Kendrick.

### *Ancestral streams*

7. 16 The main streams that cross the new highway route and the indigenous fish life that live in them are all taonga that will be severely impacted during the construction phase, and their aquatic habitat changed forever. These changes will have cultural effects on the hapū that whakapapa to NKKTNAR. It is appropriate that some form of cultural mitigation be provided to address these cumulative impacts.

7. 17 The Manga-manaia Stream receives flows from small tributaries in the Southern Ruahine, some of these being ephemeral. It discharges into the Manga-atua Stream which then flows into the Manawatū River. A few hundred metres upstream of the Manga-manaia confluence with the Manga-atua, the Manga-papa Stream also contributes to the Manga-atua near Franklin Road. The spiritual connotations within this discrete area are strong and reflect the pre-European occupation in close proximity to the proposed bridge over the Manga-manaia stream<sup>13</sup>. The hapū with mana whenua over this area whakapapa to both Ngāti Kahungunu ki Tāmaki nui-a-Rua and Rangitāne ki Tāmaki nui-a-Rua, which has been acknowledged by the Crown during Treaty Settlement processes.

**Figure 11:** The Manga-manaia on the left converging with the Manga-atua Stream at the base of the old lime works near the Manawatū Gorge eastern entrance.



7. 18 The Manga-atua discharges into the Manawatū River at the base of the bluff which once supported the old Ballance Bridge. The headwaters of the Manga-atua rise on the side

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<sup>13</sup> Proposed bridge will be on the river flats at Andrew Bolton's property close to the old State Highway 3 route into the Manawatu Gorge.



of Wharite Peak<sup>14</sup> and combine with Coppermine Creek, then flows through Maharahara West, Papatawa and Woodville to its discharge point into the Manawatū. Another significant point about these streams is that the Manga-papa is used to supply the drinking water for the town of Woodville, while the treated wastewater from the town discharges to the Manga-atua.

7. 19 They all pass through an area which was once part of the 40-mile Bush and surrounding wetlands which have long since vanished with no notable remnants left standing. Prior to it reaching the discharge point from the Woodville Wastewater Treatment Plant (WWTP) the Manga-atua already has high concentrations of contaminants, and any contaminants discharged during the construction of the new bridge across the Manga-manaia will add to this.



**Figure 12:** Coppermine Creek at the base of the Ruahine below Whariti – Photo – J. L. Kendrick.

7. 20 On the western side of the Ruahine just south of Wharite Peak is where Te Awa-o-te-atua rises to flow down to the Pohangina River. With the Manga-atua on the western side, the names of these two streams reflect the significance of where they originate from. The difference is notable in that Te Awa-o-te-atua refers to a single Atua, while the Manga-atua

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<sup>14</sup> Generally acknowledged as being an inaccurate portrayal of the original name. For Māori it is also known by other names – e. g. Whare-iti, Whare-titi, etc.

reflects the presence of two or more Atua. With the Manga-atua , the difference is probably due to one of its tributaries flowing from Maharahara.

7. 21 The other stream on the Western side which the hapū of Ngāti Kahungunu ki Tāmaki nui-a-Rua were familiar with was is Te toke-awa " which literally translated means the stream of the earthworm. In the world of old-time Māori, there was a type of earthworm considered a delicacy. Ngāti Kahungunu hapū would follow an old trail along the Raparapawai Stream, then across the top to the western side and the headwaters of Te Toke-awa.

7. 22 Maori personify the natural world due to our whakapapa connections to it. The earth is Papatūānuku the earth mother, the rivers and streams are the arteries that supply sustenance, while the wetlands are prescribed a similar function as the human kidneys, to cleanse away the waste. Where possible within the project footprint, we should mimic natural processes and utilise wetlands as part of the treatment systems for stormwater and utilise additional wetlands for aquatic biodiversity enhancement to help compensate for losses and adverse effects on aquatic habitat throughout Te Ahu a Turanga from Woodville to Ashhurst. This could be a solution that also incorporates elements of tikanga Māori processes and concepts within design.

**Figure 13:** Te Awaoteatua Stream



## 8. *Tahuhu Kōrero – Historical Discussion*

8. 1 All along the Manawatū River, there are Māori Pa in strategic locations, and mostly within view of adjacent pa. Travel by waka was common to visit whānau or to go on fishing



expeditions and stay at kainga for the fishing season, often for several weeks at a time. In times of war, it was relatively easy to travel long distances to attack or retreat strategically. An early Māori site of occupation exists above the Manga-atua Stream, on the site of the old Settlers' Cemetery near the eastern entrance to the Manawatū Gorge. In some cases, European settlers would bury their dead near old Māori wāhi tapu sites, believing there would be less chance of desecration. This is evident here with the cemetery on top of an old Rangitāne Pa site. Also, at Matamau while settlers' remains were being relocated to allow for the road deviation at Whakaruatapu. Beneath the settlers' graves earlier Māori burial sites were uncovered. Similarly, in Eketāhuna the Eketāhuna Cemetery is located on the old Wiwaka pā site.



**Figure 14:** Part of the western QE2 Block showing diversity of indigenous species

8. 2 In the days of pre-European Māori, the 40-Mile Bush area was an immense pātaka kai, with the lower ground a combination of forests and huge wetlands fed by numerous streams. On the banks of the Manga-atua and other streams the kōwhai (*Sophora spp*), mānuka (ti-tree - *Leptospermum scoparium*), te kouka (*Cordyline australis* - New Zealand cabbage tree), tutu (*Coriaria arborea spp*) and toetoe (also known as kākano - *Cortaderia spp*) were in abundance. The river systems and abundant groundwater from the ranges fed huge tracts of wetland where harakeke (New Zealand flax – *Phormium tenax*) and raupō (native bullrush – *Typha orientalis*) grew in abundance. Māori used many plants in everyday life – Raupō for whare, and insulation, harakeke for weaving and for making rope, toetoe was used in the construction of whare as a type of insulation. Several had medicinal uses as well. Wetlands and streams provided supplies of tuna (New Zealand longfin eel, *Anguilla dieffenbachia*), and koura (freshwater crayfish, *Paranephrops spp*) in abundance.



8.3 This area was also home to the huia, a species of wattle bird held in the highest esteem by Māori. It flourished in vast numbers through the Manga-atua catchment right up to the headwaters which run from the sacred mountain, 'Wharite'. Much of this bush has been destroyed with a corresponding loss of the birdlife. 90% of New Zealand's wetlands have been drained and locally, are now part of large farming operations. The re-establishment of wetland environments as a partial mitigation for adverse effects of the new highway project has the potential to re-ignite mātauranga Māori and tikanga Māori as well.

8.4 The first Europeans recorded as passing through this area, were a party of surveyors with Charles Kettle in 1842, who had journeyed through the Manawatū Gorge in a ship's longboat. This party consisted of six Europeans and six Māori guides, who spent several days camped at the junction of the Mangahao River with the Manawatū. In 1885 John Ballance introduced and legislated the 'Land Reform Special Settlement and Deferred Payment System'. Under this type of tenure settlers were able to acquire the freehold title to their sections at the end of 10 years, by paying one-tenth off each year<sup>15</sup>.

8.5 Woodville was also known as a stop-off point for many travellers passing through. One case was recorded in The Examiner of Monday October 10, 1927:

*'I can just remember, or fancy I remember, the passing through Woodville of Te Kooti and party, about a hundred Māori in all. There must have been some word of his coming, for Mr Murphy locked and barred his hotel against them. They made a stay of some hours, some going to the Central, which was then a Temperance Hotel, and some made a fire on the street between ours and Mr Moore's houses burning part of the school fence. Te Kooti and his three chief men were all masked for fear of Mr Wilson, whose parents he had massacred, so that when they left Woodville, they never drew rein until they left Waipawa behind them<sup>16</sup>'.*

8.6 Europeans often assume that the main mode of Māori travel in pre-colonial times were our rivers and waka, but Māori also travelled substantial distances through the bush on foot. In many cases early roads built by the European settlers are built on top of old Māori Trails. The Saddle Road follows the route of a Māori Trail but then deviates from it on the western side, while the Pahiatua Track follows another ara tawhito (ancient trail). Māori taua \*war parties often used them.

*'So Te Kikiri commenced the campaign against Rangitāne and the Raikāpua Pā was taken, Pohuetai battle was won and Ngatōto Pā, also taken. The war party then climbed over Te Ahu o Turanga (which is the name of the old Māori track starting from near Woodville, that passed over the spurs of the Ruahine Mountains about a mile north of the Manawatū Gorge, and came down on the west side and crossed the Pohangina River a little above the present railway*

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<sup>15</sup> Ballance - between the River and Range 1890-1990. Incorporating Makomako and Mangahao Districts. Compiled by the Ballance School and District Centennial Committee 1990. Refer page 12-13 1842-1886.

<sup>16</sup> This is Woodville, A Chronicle of 81 Town Sections auctioned at Napier 16 January 1875 A business history: Joan McIntyre published in 2013, refer page 13.

bridge) and on the other gained the battle of Te- Wai-whakatahae o Ngāti Kahungunu, the stream where Ngāti Kahungunu blood flowed. In the days of mana Māori, time was an unknown quantity and long names did not require writing down<sup>17</sup>.

8. 7 With the advent of European Settlement Māori land was acquired in tracts of thousands of acres, with whole Māori blocks being purchased at minimal prices and sold on to settlers at a higher price by Crown Land Agents. Following this process, the land was cleared of the bush and swamps were drained to establish a farming industry. Māori culture and tikanga were set to undergo a huge change, as Māori were not only disposed of their lands but also their natural food gathering areas.

8. 8 So as not to fully alienate Māori from their way of life, the Crown established Native Reserves so as Māori could still carry out traditional food harvesting. Across the Manawatū River close to the confluence of the Mangahao, a reserve was established. This was recorded by Tait<sup>18</sup>.

*‘Just across the river there was a patch of native bush about 100 acres in area called the Māori Reserve. The Government had provided areas like this to provide homes for the Māori Tribes, but the area was too small, and the native pigeons were soon killed out. Bands of Māori sometimes camped in the reserve for short periods while they fished for eels in the river’.* This reserve is now only recorded in writings like this one’.

8. 9 With the eventual clearing of the bush the follow-on effect was devastating for the huia, and loss of habitat led to its extinction. These birds were monogamous, and pairs mated for life. Each sex had different beaks, and sourced food together with the cock breaking up the rotting wood with his short stubby beak so the hen could get her long-curved beak in and pluck out insects including the succulent huhu grubs which were a huge part of their diet. Recorded sightings in and around Whariti had four huia still present there up to about 1914.

8. 10 Kererū (native wood pigeon - *Hemiphaga novaeseelandiae*) were plentiful and highly prized by Māori as a food source. Their feathers were used to adorn korowai made for Rangatira as they were valued for their multiple colours. In addition, the underlying feathers from beneath the breast were a source of rongoā. The kererū have a critical role in maintaining the forest's biodiversity, a role known by early Māori as it is the only remaining species that can swallow and disperse some of the larger native fruits and seeds – e. g. from the Matai.

8. 11 Our ancestors were very familiar with their environment; this being attributed to their knowledge of both cultivating food and reliance on the māramataka (Māori calendar) for harvesting natural foods from their surroundings. Each species or sub-species of plant or

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<sup>17</sup> Polynesian Journal Volume 15 1906, Volume 15, No. 2: Incidents in the history of Horehore Pa, Te Takapau, by Tanguru Tuhua, p 69-93. Translated by Percy Smith.

<sup>18</sup> Quoted in Ruawhata 1913-2001: Compiled by Jeanette Rossiter, refer page 7, Before the Ruawhata Settlers.

creature were given different names as well as the different soil types. Over a hundred birds, nearly three hundred plants and they were familiar with eight different worms which brought sustenance. Two of these, 'kurekure' and 'whiti', were the most prized, their sweet flavour being said to remain in the mouth for long periods. One ritual involved feeding this type of worm to a dying person, who would then enter the spiritual world with the taste of them in their mouth. As the earthworm came directly from within the whenua, it also symbolised the spiritual connection between Papatūānuku and Ranginui, and the physical and spiritual.

8. 12 To cook these worms' water was placed in a bowl and warmed with hot stones. The worms were put into the warm water where they would dissolve after a few hours and some cooked puha (sow thistle - *Sonchus oleraceus*) added. Care was required in the cooking method. If the water was too hot the worms would not dissolve<sup>19</sup>.

**Figure 15:** Tokeawa Stream which flows from the western side of the Ruahine down to the Pohangina River – Photo J. L. Kendrick.



8. 13 There is a whakatauki - '*Me mate te tikanga, kia ora ano ai te tikanga*' - meaning that we must put to sleep some of our traditions in order for others to survive. With the multiple changes and pressures of the modern world, hapū and iwi are having to adjust and make decisions that may ultimately compromise some of our values and traditions. However, it is up to ourselves to decide which to keep and which ones can be relaxed or released. It is not something that can or should be imposed upon us by others, as that would undermine our rangatiratanga and our rights to self-determination.

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<sup>19</sup> Māori Food and Cookery by David Fuller; published 1978, A.H Reed Ltd. page 4 and page 10.

8. 14 NKKTNAR are constantly having to grapple with these types of issues. Having lost much of our natural resource base, there is increasing pressures on that which remains. What remains of our freshwater resources are under threat from discharges and leachate from chemicals, nitrogenous fertilisers, stormwater runoff and intensive farming practises. Following the streams down from their sources in the Ruahine Range, their physical and spiritual health are already compromised from existing activities. It is up to us and NZTA to ensure, that additional disruption and effects from the construction of the new highway, does not result in cumulative adverse effects that further undermine the integrity of our natural resource base, or further contaminate the lifeblood of Papatūānuku.

8. 15 A glimmer of hope is provided through the potential establishment of additional wetland sites throughout the new highway corridor to assist with the filtration and treatment of stormwater runoff. If additional biodiversity wetlands were also created, then they would help mitigate for lost habitat and replenish diminishing stocks of indigenous freshwater fish and crustacea. Dairy NZ water quality scientist Aslan Wright-Stow describes wetlands as '*the kidneys of the land*'- they filter, absorb and transform water contaminants, particularly runoff and shallow ground water from farms, and help reduce the amount reaching streams, rivers and lakes. A recent review of scientific studies undertaken by NIWA<sup>20</sup> for Dairy NZ found seepage wetlands can reduce the amount of nitrate in waterways by up to 75 - 80% (reported in the NZ Herald).

#### *Ngā Ika*

8. 16 The Manawatū and its tributaries contain the longfin eel, a taonga species that is native to Aotearoa, and which provided such a large contribution to Māori survival, not only as an excellent and plentiful source of kai and protein, but in terms of customary lore and tradition. The tuna heke (eel migration) was eagerly anticipated with preparations for it started well in advance. In addition, large eel weirs were sometimes constructed, and numerous hīnaki<sup>21</sup> prepared. With the deforestation and the drainage of the wetlands, eel stocks began to plummet. At one stage following the introduction of the rainbow and brown trout, there was a bounty placed on longfin eels, as they were believed disadvantage trout survival. The commercialisation of the eel fishery has also contributed to its decline, as weight was the main determinant and the large breeding females were quickly targeted during the late 1970's and early 1980's. Some of these larger females were up to 100 years old.

8. 17 On July 31, 1888, 5,000 trout were liberated into various Tararua rivers. At the bridge over the Makākahi River 1,500 trout were released, at Tutaekara 500 trout, with another 2,000 released into the Mangatainoka River<sup>22</sup>. C. J. Carle reflected: -

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<sup>20</sup> National Institute of Water and Atmospheric Research.

<sup>21</sup> Hīnaki were the traditional Māori eel trap, intricately woven and designed depending on specific habitat type where they were to be used, and the tikanga/ kawa of the particular hapū.

<sup>22</sup> Forty Mile Bush – A tribute to the pioneers; C. J. Carle; Pahiatua Centennial Committee.

*‘A little trouble was experienced at Tutaekara, the Māori at first refusing to allow the fish to be put in the river giving as a reason that in time they would be prevented from catching native fish’.*

8. 18 Over time with reduced habitat and the loss of refugia for juveniles, they became subject to increased predation, and the decline in water quality would sometimes affect tuna through skin lesions, abrasions or fungus forming on their gills. For Māori this rendered them unclean so tapu, and unfit for human consumption, impacting on the whānau ability to feed their manuhiri which in turn impacted on their mana.

8. 19 Two other examples of the release of trout into Tararua’s waterways are from the New Zealand Mail and the Woodville Examiner<sup>23</sup>: -

*‘The Woodville Angler’s Association has arranged for the distribution of a quantity of trout from Masterton. Between 20,000 and 30,000 have been placed in the Mangamanaia, near Peebles’ old house, in the Mangapapa, below the bridge in Murphy’s Creek, and the balance in the upper waters of the Mangaatua’.*

*‘Mr. W.H. Nelson to-day received 10,000 young trout for liberation in the streams in this district. They will be put in the Mangaatua, Mangarawa and Mangamanaia Streams.*

8. 20 All other indigenous fish within our rohe are regarded as taonga and are therefore of significance to Māori within Tāmaki nui-a-Rua. These include various galaxid species - bullies (common, upland and bluegill) and smelt, the kokopu and Koaro. Many willows were planted along our rivers and streams by the catchment boards in the 1970’s and 1980’s to assist with the stabilisation of the banks during storm and high flow events. Longfin eels and other native fish have adapted to these despite them being exotic species, residing among their twisted root structure and holes in the riverbanks under the water. Some willow species are now seen as a pest plant and many are being removed from riverbanks leading to the disruption of the existing fish habitat.

8. 21 The Parliamentary Commissioner’s Report of April 2013<sup>24</sup> highlighted the threats to the longfin eel and acknowledged water quality decline and loss of habitat as key factors in its reduced populations. In some catchments it is now deemed rare. Any further disruption to its habitat within our rohe should be prevented unless there is a compensatory solution provided. The tuna is as old as New Zealand having evolved over many millions of years. In our world the tuna holds a very special place.

8. 22 Most of our larger tuna have gone. Our ancestors looked upon the larger tuna as kaitiaki due to their great age and some Taniwha are reputed to take the form of large tuna

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<sup>23</sup> Country News - The New Zealand Mail, Issue 1440, 5 October 1899: Woodville Examiner, Volume XXII, Issue 3952, 14 November 1906.

<sup>24</sup> On a pathway to extinction - an investigation into the status and management of the longfin eel: Parliamentary Commissioner for the Environment, April 2013.

and held in awe. At Ngā-awa-purua near the confluence of the Tiraumea and the Manawatū, a large tuna was likened to a Taniwha. He resided in a large hole and was sometimes visible feeding. Over many hundreds of years Māori have had an association with the tuna both as a food source and as a holder of knowledge.

8. 23 For NKKTNAR it is important for us to preserve our cultural traditions and the elements within the cultural landscape on which they are based, as even though some of the resources have been depleted, or are now extinct, the underlying tenets and mātauranga on which they are based remain sacrosanct and based on integrity. If we let our remaining taonga die then we as an Iwi will lose part of our mātauranga that was founded on the actions of our tipuna, and our hapū that rely on us to be their voice within the resource management arena will lose out, as will the generations of whānau yet to come. The ultimate result could be the loss of identity, mana, and mauri.

8. 24 Part of the local kōrero concerning taniwha of the Manawatū Awa is of Whāngai Kaimokopuna, who was revered by the people in and around Motu-iti and they fed him the choicest parts of the tuna that they caught. One day however, most of them went on a hikoi and left strict instructions for the young people left behind to feed Whāngai Kaimokopuna while they were gone. Deciding to play a trick on the taniwha, they instead fed him the heads of the tuna, which enraged him, and he devoured one of the young people whole.

8. 25 When the older whānau returned, a boy was found to be missing, and nobody knew his whereabouts, until the taniwha spewed the boy up. When the body of the boy was seen, the people chased the taniwha away. He raced up the Manawatū River passing through the Manawatū Gorge, stopping at Nga-awa-purua, the point where the rivers from the Southern Taranaki merge with the Manawatū River. As he passed this place Whāngai left a kaitiaki here in a deep hole in the Manawatū, in the form of a large tuna. When the river is at its lowest during drought conditions, under the water can be seen white rocks that glisten through the water. Where these rocks shine through was near the place where the ferry that used to cross the Manawatū River used to be located.

8. 26 Whāngai Kaimokopuna continued his journey up the Manawatū River briefly stopping at Oringi, and in a curve in the river near Puhetai<sup>25</sup> he left another kaitiaki, again in the form of a huge tuna. This place is often referred to as the highest navigable point on the Manawatū River. Still enraged he went crashing into the huge cliffs and then headed west towards the Ruahine Range carving out the channel which is now the Tāmaki River. As he neared the Ruahine they posed an obstacle for him, so he turned and came back down the Tāmaki. At the confluence of the Tāmaki and the Manawatū Rivers stands the hilltop pa Raikāpua, the escarpment in the bank caused by the Taniwha became part of an impenetrable defence on this side of this pa.

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<sup>25</sup> A hill on the true left bank of the Manawatū River. Alternatively called Puehetai, one of the pā of Ngāti Mutuahi a hapū that has both Kahungunu and Rangitāne origins.



8. 27 As he moved up the river he carved out a new channel which is now part of the old riverbed and was the straightest part of the Manawatū River and comes out at Kaitoke forming part of the Mohanga-iti Lake which also has a taniwha that resides in its depths. The people of this place lived alongside the lake in peace, gathering koura, tuna and kākahi (freshwater mussels) from its depths. Sometimes the lake would become dirty and rough and churned up. This was taken as an indication the taniwha was becoming restless and seen as a bad omen, that somebody in the village was going to die. These people were the descendants of Pāora Rangiwhakaewa.

8. 28 Whāngai Kaimokopuna continued up the Manawatū until he took a left turn at Maunga Road carving out the channel which is now the Manga-puaka River. Within the stretch of river where it passes through Ben Nevis Station is another kaitiaki left by the taniwha, again in the shape of a large tuna that has been seen by people during daylight hours.

8. 29 As the taniwha crashed through the landscape forming the Mangapuaka Stream he penetrated through a rock face forming the entrance to the Mangapuaka Gorge. Near the entrance to this gorge reside six huge tuna, dark black and with tusks, all sharing the same lair. They can be summoned by splashing the water with one's hand and reciting karakia. At the headwaters of the Mangapuaka in a waterfall there are large numbers of tuna and people once thought there was a hidden cavern in behind the waterfall. The taniwha who was now exhausted after his long journey stopped and remains here today. The Whangai Range is where he rests, having left kaitiaki at various locations along the river, to look after these places as wāhi tapu.

## *9. He Māramataka me Matariki*

9. 1 Māori seasonal activities and the gathering of kai are strongly influenced by the celestial realm, the māramataka and the position of the stars and constellations. Used for navigation on the epic voyages of our sacred waka, tohunga kept this mātauranga alive and our hapū safe. The stars can indicate auspicious occasions, when food gathering from the awa (rivers) or the ngāhere (indigenous forest) is at its best. They can signal seasonal differences and forthcoming events, and the placement of the stars in the night sky are indicators of potential species behaviour and condition - the different times of the year when tuna migrate, the best time to harvest kuku (mussels from the sea), and when kererū are likely to be in prime condition. This information was used by our ancestors throughout the Tararua rohe and combined with intensive knowledge of their surroundings to assist in making sound decisions. Use of the māramataka is closely aligned with the Atua domain and regulates tangata whenua behaviours and actions depending on the aspect and position of particular stars as observed with the naked eye.

9.2 For Māori the māramataka or lunar calendar begins with **Matariki**, which is when the constellation first appears on the horizon. It is often translated as ‘little eyes’, or as an abbreviation of Mata Ariki, ‘the eyes of the Ariki’, an Ariki being a Chief. It is a constellation that is also revered by other cultures. As with other natural phenomena, for Māori there is the personification of the stars. The star cluster has nine stars, consisting of two parents and their seven children<sup>26</sup>. One individual star is also called Matariki and is female. She is married to Rehua (known to western astronomers as Antares – the red star) whom Māori believe is the paramount chief (Ariki) of the heavens. Matariki and Rehua had seven children, who are the other stars within the Matariki group<sup>27</sup>. Each of the children (stars) has their own purpose in Te Ao Māori.

#### *Tupuanuku*

9.3 ‘*Tupu*’ or ‘*Tipu*’ means to grow, and ‘*nuku*’ is a shortened version for Papatūānuku our earth mother. In simple terms, tupuanuku means ‘to grow in the earth’. This star is connected to all cultivated and un-cultivated foods and is the reason the Matariki cluster is immortalised in the proverb ‘*Hauhake tū ka tō Matariki*’ in reference to the setting of Matariki in the western sky, and ‘*lifting of the crops begins when Matariki sets*’. This occurs over several weeks when Matariki can be observed in the Western Sky at dusk and is traditionally when the harvesting of kumara occurs prior to the onset of winter. Depending on location and latitude within Aotearoa, the harvesting time would vary slightly.

#### *Tupuarangi*

9.4 Tupuarangi is also connected to food but is associated with the food that comes from the sky, including the many birds that our people would snare for food. During the rising of Matariki, kererū were harvested in large numbers and because of the abundance of forest within Tāmaki nui-a-Rua including Te Ahu a Turanga, they were able to provide good supplies to carry them over through winter. The kererū were harvested, cooked and preserved in their own hinu (fat). This custom gave rise to the whakatauaki ‘*Ka kitea a Matariki, kua maoka, te hinu*’ which simply translated meant ‘When Matariki is seen, the fat is rendered’ with reference to the kererū that had reached prime condition during this time of year from feeding on the many fruits and berries from the native bush so the birds can be preserved in their own fat. Tupuarangi is the star that connects the cluster to the harvesting of birds and other elevated foods which are the berries within the bush canopy.

#### *Waiti*

9.5 Waiti is associated with freshwater and all the food resources it provides. The Makākahi, Ngātahaka, Mangatainoka, Tiraumea, Makuri, and Mangahao all flow from the south and into the Manawatū River, while the Manga-atua, Manga-papa, Manga-manaiā,

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<sup>27</sup> Matariki is also acknowledged as the Pleiades (from the ancient Greek), and revered in other cultures. Some people call the group ‘the seven sisters’ as the parent stars are often more difficult to see.

Tāmaki, Raparapawai and Oruakeretaki tributaries flow from the north and east. They each bring their individual Mauri to the Manawatū River. This mixing of the Mauri from the different whenua throughout our rohe brings a flow of spiritual energy and mana to the Manawatū River.

The connection Waiti and Matariki have is reflected in the proverb '*Ka kite a Matariki ka rere te korokoro*'. The korokoro (lamprey - *Geotria australis*) was once plentiful in Tararua but is now rare. Having migrated from the ocean in late winter early spring, then up our freshwater streams to spawn, this process would occur when the star Waiti is seen in the morning sky.

### *Waita*

9.6 Waita means 'saltwater' so is associated with the oceans. When Matariki sits just above the horizon, it has a significant impact on the tides and floodwaters Te Waka Kawatini<sup>28</sup> explained the Matariki (the Pleiades) has much influence in the control of tides when the star group is above the Tuahiwi nui o Hinemoana, the central ridge of the Ocean Maiden where the flood tides meet. This knowledge of Waita was significant for Māori so as to retain consistency around all aspects of the resources and ecosystems in the realms of Tangaroa.

### *Waipunarangi*

9.7 Waipunarangi is the star that has a connection to rain and refers to '*water that pools in the sky*'. The pooling of water on the ground following persistent heavy rain was referred to as '*Matariki tapuapua*'. It is Waipunarangi which links the entire Matariki cluster to rainfall events.

Lying within the rain shadow of the ranges, Tāmaki nui-a-Rua is well known for its prevailing weather patterns and reliable rainfall. When travelling from further north into Tararua, there are often clouds seen gathering over the Ruahine, and the dominance of dairy farming in the area is partly due to the rainfall. Te Ahu a Turanga project is highly likely to experience these heavy rainfall events given that it will straddle the Ruahine Range.

### *Ururangi*

9.8 Ururangi means '*the winds of Rangi (the sky)*'. Uru also means '*west wind*' or '*north west wind*', the winds that persist at certain times of the year and bring specific weather. Cirrus stratus clouds are often present when these winds arrive. Ururangi also heralds the types of wind likely throughout the year. Ururangi had a massive impact during the settlers' clearing of large tracts of the Forty Mile Bush, causing fires to rage out of control and destroy both the felled bush that had been left to dry plus mature bush nearby. Settlers' whare and their stock were destroyed, with some settlers dying from the effects of smoke inhalation. Throughout the project area, the north-westerly winds mean changeable weather.

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<sup>28</sup> Te Waka Kawatini was a kaumatua of Ngāti Hineuru and Ngāti Matepu and a major player in the petitioning for Māori land in Hawke's Bay in the 1860's and 1870's.

### *Hiwa-i-te-rangi*

9.9 This star's name is connected to the promise of a prosperous season. Translated 'Hiwa' means 'vigorous growth' and through their spiritual connections with Hiwa, tangata whenua could gain an indication of the likelihood of their dreams and aspirations for the coming year becoming a reality. Reverence and karakia towards this star would hopefully ensure that the coming planting season Hine-koanga (Spring) would go well, and the subsequent harvest in Hine-ngahuru (Autumn) would be bountiful. Karakia recited by a Tohunga who was an expert in the field of reading the stars, a knowledge passed down from generation to generation, would help ensure the Atua provided for the hapū.

9.10 Much of our tipuna's day-to-day living was based around the Atua Domain in conjunction with the Cosmos, where information and knowledge gained from the stars aligned with the various realms controlled by certain Atua. The relationships with the Atua helped to maintain the Wairua of our hapū, contributing to positive energy and Mauri.

**Figure 16:** The place where the stream on Graham Bolton's farm discharges down through a series of waterfalls into the Manawatū Gorge (Across from Kerry's Wall) - J. L. Kendrick.

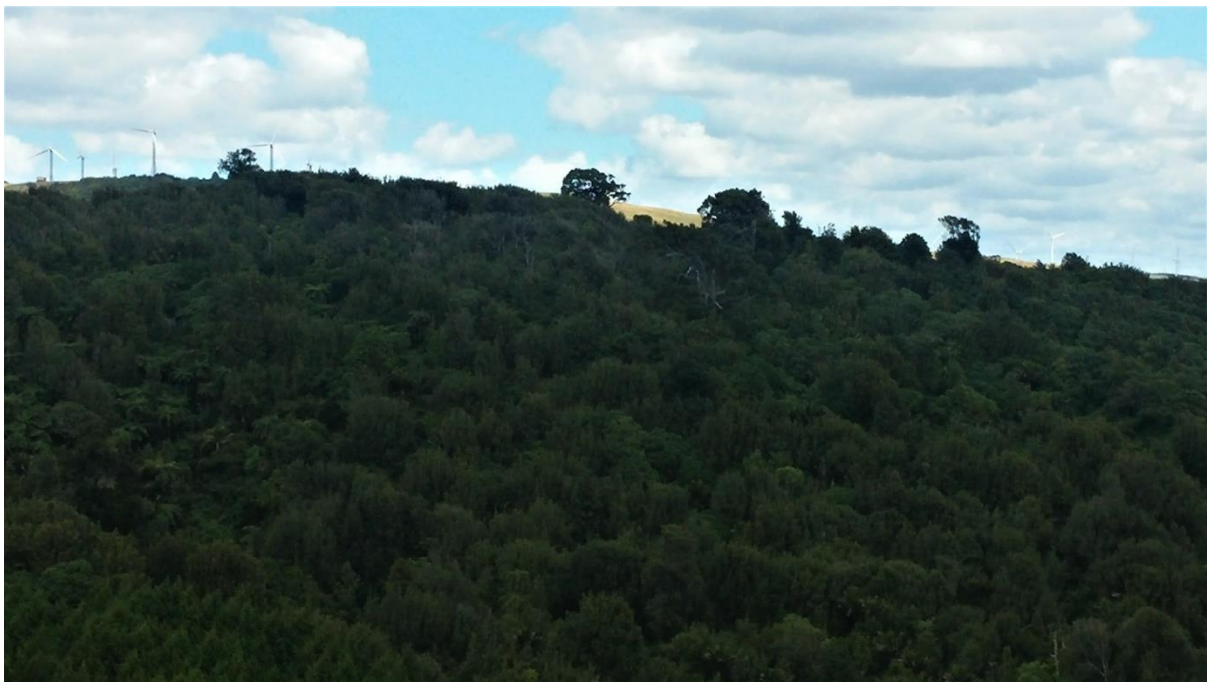




## 10. *Ngā Rākau*

10.1 Throughout the new highway route, there are very few tracts of the original old growth forests left. There is the grove of swamp maire below the escarpment on the western side near the Manawatū River, and the QE2 Trust Blocks on private land and protected by covenant, although latest information is that part of these will be felled, but far less than what was previously planned for during the Notice of Requirement process.

10.2 In addition, the removal of indigenous regrowth and shrubs is also projected. The NOR process prescribed an Ecological Compensation Ratio for loss of indigenous plant cover, which was graded in ecological terms, but without considering input from tangata whenua on cultural assessment, priority setting or potential cultural mitigation. In some ways, this is similar to colonialism where the coloniser makes decisions on behalf of tangata whenua, without allowing tangata whenua to inform the process until after the decisions, in this case on ecological mitigation, have already been made. That said, the proposed designation conditions did provide for the finalised package of measures to be devised in collaboration with tangata whenua.



**Figure 17:** Showing the regrowth in the foreground with older trees on the ridgeline which are suitable for seed collection

10.3 Tangata whenua values or priorities associated with the ngāhere and its ecosystems, are an integral part of mātauranga Māori me ōna tikanga. All hapū and iwi have a long and enduring history of relationships with the ngāhere and the rākau. These have informed tikanga and kawa, assisted in the gathering, determining and confirmation of our mātauranga

Māori and associated values and attributes. The manu are closely aligned with and dependent upon the ngāhere, and how it is integrated into the overall highway project. Any change that occurs to these taonga and to the whenua around them can have an impact on them and on us. The indigenous plants and trees within the ngāhere are the tūākana to Kahungunu ki Tāmaki nui-a-Rua through our whakapapa ties.

#### *Ngā tini o Tāne – the multitudes of Tāne*

10.4 The numerous varieties of indigenous trees grow in a symbiotic and co-operative manner. They depend on and look after each other. The smaller growing trees and shrubs generally mature earlier than the forest giants that live for hundreds of years. The smaller varieties are like a kōhanga and provide shelter within which the longer-lived rākau germinate and grow. They are therefore sheltered during the early stage of their growth. Over time as the larger varieties mature, they tower above the others and block out the sunlight. Eventually the smaller varieties die off and provide sustenance for the large podocarps. The forest floor is covered in humus from decades of leaf litter, twigs, decaying plants and fungi, and microscopic organisms that break these down forming a unique blend of nutrient ideal for nurturing the forest giants as they mature, while blanketing the forest floor to help insulate and protect Papatūānuku. The gardeners of the forest, the native birds thrive within this environment and spread the various seeds out over a wider area.

10.5 The layers of different rākau create an ambience, they moderate temperature and act as a buffer to protect the whenua from extreme heat or cold, and from stormy weather. The ngāhere acts as a korowai or cloak to protect Papatuanuku. The forest floor contains a seed bank for all the rākau within the area. Ancient rimu are present outside the designation but will be within easy access once the road has been built. For these giants of the forest - for many years only Māori ventured up to these 'Tipu' – a name given to the greatest and purest of trees. Prior to colonisation, Māori were a very healthy people, living off the food sources provided by the Atua and the ngāhere, by the rivers and the streams, with periodic hikoī to the coast along ara tawhito.

10.6 In some places regenerating matai are present in large numbers, predominantly on the western side of the range close to where the proposed eco-viaduct will be located to carry the road above the swamp maire and adjacent wetlands near the Manawatū River. In February 2019 an extremely heavy mast (seed production) was taking place, with the Matai loaded with berries. This attracted a large number of kererū, with 15 sighted in one small area. Rimu (*Dacrydium cupressinum*) and Kahikatea (*Dacrycarpus dacrydioides*) were also laden with berries.

10.7 One potential negative effect from the heavy mast this year is that with the huge quantities in food on the forest floor, there is a corresponding increase in rodents and mustelids, posing a risk to survival for young native birds. The Department of Conservation (DOC) is looking at using 1080 to address this but with plenty of food around the pests are likely to leave the 1080 baits preferring the other sources.



10.8 Some potential positives from the construction of the new road will be the establishment of new stands of native plants enabled by NZTA. The creation of wetlands for stormwater treatment could also be combined with construction of biodiversity wetlands for increased habitat potential for wetland birds, particularly given the policy in the OnePlan stipulating ‘no net loss of indigenous biodiversity’ and the preference of NKKTNAR for biodiversity enhancement.

#### *Karamu (Coprosma robusta)*

10.9 This section describes some of the plant species observed within the designation area. Karamu is a common plant growing in many places. It is unique its application for its rongoā capabilities and was used by Māori as an antibiotic to fight off infection and in some remote places is still used by Māori today. It is one of an assemblage of plants whose whakapapa takes it back to one of the select plants the atua created and gave priority too. It is usually one of the first plants to re-generate after a landslip has occurred, after a bushfire, or where the bush has been cleared, because it is a rongoā which gives healing to the whenua. Māori realised that if the plant was healing the whenua then its attributes may have similar value to provide rongoā to the whānau. When used for rongoā, the juvenile leaves facing the rising sun are picked, as these are the purest leaves on the plant. As usual, while harvesting for medicinal use karakia are recited to invoke well-being from the atua and give thanks for this taonga. The leaves are cleansed in water and sliced, then placed in water and simmered gently over a hot fire. After cooling the liquid is then taken orally. Birds also feast on the karamu berries and assist with seed dispersal around the ngāhere.

**Figure 18:** Matai tree with seeds forming, February 2019 – Photo J. L. Kendrick.



#### *Koromiko (Hebe salicifolia)*



10. 10 This plant is extremely plentiful around the perimeter of the ngāhere and often grows near Karamu. It is also a rongoā that helps to rejuvenate the whenua and helps in providing sustenance and stability to the land. It prepares and nurtures the whenua for the re-growth of the large podocarps. This process can often take many years. Koromiko was also used as a vapour bath or a treatment for venereal ailments. Its flowers are predominantly white with variants having light purple flowers.

*Poroporo (Solanum aviculare)*

10. 11 To date and having traversed much of the designation landscape, these were only found in two places. One is where the enabling works will take place on Access Track 2. The plant was used by Māori as a bonding agent for the paints we mixed up from other natural elements like soil, clay paru (a type of dark glutinous mud from swamps) or ground rock. Poroporo was also used for rashes to prevent or ease itching, scabies and for treating ulcers. The juice from the plant was extracted and mixed with soot, then rubbed onto wounds produced by tattooing. At times this plant was very scarce and knowledge of some of its traditional uses is disappearing as the last of the people with the true knowledge of the how it was prepared pass on.

**Figure 19:** Kahikatea in fruit March 2019 – J. L. Kendrick



*Nikau (Rhopalostylis sapida)*

10. 12 The nikau was a valuable source of food for Māori who ate the developing flower head and the immature leaves. It was used as a rongoā by pregnant women to avert morning sickness. A preparation made from the pith of the plant can relax the muscles during childbirth, and the sap was drunk to make childbirth easier. A more concentrated concoction

has laxative properties. The nikau is somewhat out of place in the Manawatū Gorge area as it is more often found in Northern region of New Zealand where it is a characteristic feature of the landscape.

*‘A story told to me by one of the older people from Woodville refers to the farmer Mr Graham Bolton building his new house up on the top of the saddle where his large farm is. He has farmed his property since 1959 having broken the land in. Apparently Graham put in a large garden which is still visible today around his house and planted nikau palms in this garden. Over the years the nikau has dispersed throughout the gorge due to the prevailing winds, and the kererū and other birds feasting on the fruits of the nikau palm have helped to distribute the nikau over a wider area.*

One is able to observe the growth rough line of nikau downwind of the original garden. The nikau does not grow anywhere else in the gorge apart from around this particular area but adds immense value to the diversity of the ngāhere.

#### *Te Kōuka (Cordyline australis)*

10. 13 Many people refer to this tree as the New Zealand Cabbage Tree. Due to its abundance it was a reliable a source of food for Māori and when water is scarce it is possible to suck the moisture from the pith as the tree stores water there. As a rongoā, it was used to treat dysentery. If the leaves are scraped, the scrapings can be applied as an ointment to the cuts and cracks in the skin and to sores.

The pure inner shoot and tops of the stem were boiled and eaten by mothers nursing babies and were also given to children for colic. This tree is rather plentiful both inside Te Ahu a Turanga designation and on adjacent land.

#### *Rata (Metrosideros robusta)*

10. 14 The rata is a rather dominant tree in the ngāhere in the Manawatū Gorge and in places dominates the skyline. It is a good indicator around possum numbers as when numbers are high the rata is targeted by these pests and the damage to them can be easily observed. This is when it will struggle to flower and produce fruit, but pest numbers have been controlled so the tree flowers extremely well producing plenty of fruits for native birds.

The northern rata starts out life as an epiphyte attaching itself to a host plant and grows up around it using the host for sustenance. The southern rata (*M. umbellata*) rarely grows as an epiphyte.

As recorded in the book ‘Balance’,

*‘. . . with the survey completed, a contract was let to clear the area of heavy bush. However, the contractor was unable to complete the job owing to the great number of large Rata trees. Mr Girdwood finished the job and left Rata standing. The fallen bush was burnt in February, the grass seed sown in March’.*

This gives some idea of the dominance of the rata once in this area. Māori used the Rata as a rongoā plant, making a lotion from the bark to use for the treatment of ringworm. Other applications were for aches, pains and open wounds. The young leaves were also chewed for toothache, and the nectar from the flowers used to ease sore throats, as they both have antiseptic qualities.

#### *Matai (Prumnopitys taxifolia)*

10. 15 On the Eastern side of the new highway corridor where the main bridge climbs up from the Manawatū River, the dominant podocarp is Matai or Black Pine. These trees are a great source of food for kererū, and on numerous site visits to this spot flocks of kererū numbering 20-30 birds have been observed feeding on these trees. Matai was used by Māori to make weaponry, as it is a durable timber. Matai could also be tapped to produce a liquid for use as an antiseptic and was sometimes used by Bushmen to produce what they called 'matai beer'.

This last year (2019) was a bumper season was a huge season with huge quantities of berries being produced, hence the large amount of kererū feeding and breeding in this locality. This large tract of Matai is regenerating and covers the large hill sides.

#### *Rimu (Dacrydium cupressinum)*

10. 16 Rimu or Red Pine is dominant on a ridgeline across the top of the range accessible from Mr Graham Bolton's property. It forms a backdrop to the large pond that draws from a land catchment of 1200 acres. The pond's outlet passes through this large stand of rimu which can be referred to as Old Growth forest. In the Māori world this stand of trees is referred to as 'Te Uru Taumatua', which signifies a whānau group very similar to a Māori whānau, all growing together. The rimu can be seen as prospering in a supportive environment with successive generations of rimu growing around the matriarchs in the group.

Te Uru Taumatua are held together under the ground by their genetic bond, their root structure intertwined so they feed from the same piece of whenua while helping to support each other. Similar to a Māori whānau, if you start losing the kaumātua the strength of the whānau diminishes with the loss of knowledge, aroha and support.

Besides providing food for the kererū, the gum from rimu was used to assist with stopping the flow of blood from wounds. A piece of red gum the size of a walnut dissolved in water and taken internally can allay bleeding of the stomach and lungs. An infusion was used to heal running ulcers, and the leaves were used as a poultice on sores.

Settlers saw the huge value in the rimu timber and used it for building houses, and cabinetry.

#### *Tōtara (Podocarpus tōtara)*

10. 17 Tōtara was the predominant tree of what was referred to as the Seventy Mile Bush, or the great forest of Whatonga. Scattered throughout the Tararua districts are remnants of these large tōtara trees, while the forest adjacent to the designation contain some large

tōtara trees. The tōtara was used by Māori to construct huge waka but was also used in the many carvings on whare tipuna (meeting houses) as it is a wood that splits easily and suitable for carving.

As a rongoā, the smoke from burning the wood was used to treat paipia a skin disease, venereal disease in women and for piles. The exterior bark could be peeled off trees and used as splints for broken bones, the bark would mould around the area of the break and give rigidity to the limb and was tied in place using harakeke. The inner bark of tōtara and mānuka were boiled and the extract kept in a closed bottle or hue for a week. The cooled liquid which was sweetish in taste was used to reduce fever.

#### *Ongaonga (Urtica ferox)*

10. 18 This is the native stinging nettle and is scattered throughout parts of the ngāhere outside of the designation. The plant was used to treat eczema and venereal disease, where the juice from the boiled bark was applied.

Considered to be lethal to horses and dogs and there is a recording of a man dying from poisoning from the plant. Modern science is currently experimenting with the plant to treat rare diseases (Guillin Barre syndrome) and ongaonga is the main source of food for the native red admiral butterfly.

#### *Karaka (Corynocarpus laevigatus)*

10. 19 Although the karaka is growing in parts of the designation, it is generally not an inland tree, and usually grows in coastal areas. Its presence in Te Ahu a Turanga is probably an indication of previous sites of Māori occupation. On the western side of the Manawatū Gorge groves of Karaka are plentiful and were bearing good yields of fruit during site visits during the summer of 2019. The karaka was a highly prized source of food, with the fleshy orange part of the berry eaten. The kernel is highly toxic, but during preparation an expert could boil the toxin out of the nut. The resinous part of the kernel could be dried and ground up and used by Tohunga ta moko as a binding agent for the ink used in the moko. The karaka also was a medicinal plant as well, with the leaves healing when applied to wounds, *'but care must be taken to place the shiny green upper surface to the wound, as the under surface draws equally as the upper surface heals'*.

#### *Aruhe (Pteridium esculentum - Bracken Fern)*

10. 20 The bracken fern is plentiful throughout the designation. Aruhe is the edible rhizome, the fernroot and was the most reliable source of food Māori had as it was always accessible. This provided basic nourishment in the absence of other and more palatable foods. In the Māori cosmology of the Atua Haumia-tiketike presided over only the root of the fern, its stalks and fronds remaining under the domain of Tāne.



### *Tutu (Coriaria spp)*

10. 21 There are several varieties of tutu and it was used by Māori as a source of food, drink and rongoā. The tutu was deemed very toxic and it was in the preparation and the removal of the seeds that then enabled it to be used for food. The tender shoots were plucked in certain seasons in relation to the Maramataka. These were used to treat dysentery.

A mixture containing juices of the pith was used for insanity as well. Tohunga of the highest rank would create a sacred brew to heat which would generate steam and this was inhaled. Being hallucinogenic it would connect the tohunga with the spirit world to receive direction. Other uses were for making poultices for cuts, bruises and boils. People would bathe in tutu juice mixed with water to help heal aching joints and broken bones, but after a soak in tutu the body needed a place to rest as this treatment would drain the body of all energies. Tutu was used to dye flax a black colour to be used in weaving.

Tutu is a dominant plant in some areas of the designation and large enclaves of the plant appear on the outside of the designation on banks where they grow alongside other rongoā plants.

**Figure 20:** Mature tōtara tree near one of the access tracks





### *Puku-Tawai (Laetiporus portentosus)*

10. 22 The Puku-tawai is a type of hard fungus which grows on the trunks of trees, usually the Beech, and is visible in a couple of places inside the designation. It is growing out of an old beech tree within the area that the main bridge will come up over the Manawatū River and up through the wetland area.

*'The puku-tawai came about with the beech tree getting very sick in its puku (stomach) and spawning this fungus out of its puku and the tawai attaching to the exterior of the tree'.*

*The Puku - tawai has a whakapapa back to Mahuika, goddess of fire, with this fungus being one of the selective teina to hold onto fire for Mahuika.*

Old Māori used the Puku-tawai to carry fire, as the fungus can be lit, and a small piece will smoulder for weeks on end. When a new fire needed, the Puku-tawai was placed in a pile of dry fern and then blown on like blowing on an ember in a smouldering fire, which ignited the dry fern.

*'In the time of the 2nd World War Māori soldiers would carry this fungus around in small tins, they used this to light their smokes rather than having to carry matches, as this fungus would smoulder even if the Puku-tawai became moist'.*

This taonga is becoming scarce in the lower North Island and is only found on old or decaying beech trees. Once quite plentiful, as the host trees decline, so does the Puku-tawai.

## *11. Ngā Manu*

11. 1 Many different birds were abundant in the large indigenous forests of the Tararua in pre-European times. Several are now extinct including the huia, with the last recorded sighting in 1907.

11. 2 Different species are recorded in the ngāhere within Te Ahu a Turanga, with most being identified by NZTA ecologists and during cultural monitoring of the various NZTA activities in the designation. The birds are either resident or cross over from nearby forest in the Conservation Estate and from the refugia provided under the QE2 Trust. Indigenous birds are recognised as traditional taonga to Ngāti Kahungunu ki Tāmaki nui-a-Rua and are in some places becoming more visible while in others, some are becoming scarce. The invasion of pests, resultant predation on birds and human encroachment are some of the causes of population decline.

11. 3 Ngāti Kahungunu ki Tāmaki nui-a-Rua have concerns around the cultural impact the new highway will have on some bird species, due to the disruption to flight paths and normal feeding patterns caused by increased traffic, and the loss of mature trees and indigenous regrowth. An additional road through the ranges will add to adverse impacts on the birds.

Although the gorge road is now shut off to through traffic, there has been a huge increase in use by walkers, tourists and mountain bikers, so that the decrease in disturbance from reduced traffic through the gorge, has been over-compensated for by the large increase in recreational use.

11.4 Although loss in bird habitat will eventually be addressed through a mitigation process, the decrease in habitat will be quite serious as it will take decades for the trees in the replanting programme to attain maturity and bear fruit. In the interim, the decrease in food sources, and the noise and disruption from construction activities, are likely to drive large numbers of resident birds out of the designation.

**Figure 21:** Kererū in the Western QE2 Block



11.5 The concern around disrupted flight paths requires some concentrated attention. Reduced access to tracts of bush for feeding once the new highway is built will be substantial, Planting and cultural mitigation, plant maintenance and replacement over a period of time could be a role undertaken by Kahungunu to enable kaitiakitanga.

#### *The Origin of Manu*

11.6 Tāne Mataahi took this name to bring ngā manu into the realms of creation, but before he could achieve this, his first task was to clothe his mother Papatūānuku with vegetation and trees. Under Tāne Mahuta seeds were obtained from the repositories of ngā atua '*Te Rarataungatere and Hukahukatea*'. With the voice of karakia and the breathing of mauri into

the trees, they became fertile and were able to produce berries and other fruits, thus being able to reproduce through seeding.

11. 7 Tāne acquired the basket of knowledge '*te kete aronui*' this being the basket of love containing knowledge of the whenua, ngāhere and ngā manu. The trees of the forest are referred to as '*ka hua a Tāne*' - the fruits of Tāne. Having transformed his mother Papatūānuku with an adornment of living green which provided the ability to fruit and reproduce, Tāne then produced a unique variety of offspring, ngā manu – those that fly by night like the ruru and the whiro, as well as manu that fly by day such as the kererū, titipounamu, tui and piwakawaka, to name a few varieties that are resident around the designation. The following birds are considered more in-depth as they have been observed around the new highway corridor and in adjacent areas.

#### *Kererū*

11. 8 Currently kererū are quite plentiful in places, with large numbers observed some days when they were feeding on the matai berries at the site of the proposed 'eco-viaduct'. With 28-32 birds seen in one flock, this number could be attributed to the mega-mast, where all trees in the bush were producing large quantities of berries and seeds due to the favourable conditions. It is probable that a season like the one just past will not occur again for at least another 4-5 years, as the trees will require time to re-energise and rebuild their Mauri. This is a natural process and noticeable also with the manuka where commercial honey producers will have a bumper crop one year, a mediocre one, then two or three average seasons before another great production year.

11. 9 The origins of the kererū in Māori tradition relates that they originally had white plumage and the coloured plumage came from Maui-tiki-tiki-a-Turanga, who changed himself into a kererū and pursued his mother Taranga, to the Underworld to find out where she went in the light of day. Maui's visit is still remembered by many of the old people but is not kōrero that is related often now. When spoken about figuratively it is as a symbol of Mauri wairua and is known to have the power to foretell the future because the wairua of Maui remains within it.

11. 10 The white breast of most kererū signify the '*maro*' (short apron) worn by his mother. The finer breast feathers were also used by Māori as a rongoā, with the quill being the repository of a clear fluid which was removed and given to tamariki who had stagnated growth. The clear liquid has a growth hormone in it (which has been validated by western science) and is a possible reason why some Māori men were quite tall in the old days. In Māori lore, the dark plumage around the kereru neck resembles a belt, and the black feathers beside the throat, the belt fastenings. There is also an ancient tradition that the coloured plumage of the kereru comes from feasting on resinous berries of the matai.

11. 11 Kererū feathers were used to adorn *kākahu* and *korowai*, the ceremonial cloaks worn by Ariki - those of high rank. Some of these older cloaks are held in storage at Te Papa

Museum in Wellington. Kererū were the most plentiful source of kai and large numbers were preserved for the winter months in *taha* (containers) or *hue* (gourds). Methods of cooking and preserving varied between hapū/iwi and it was sometimes possible to tell the origin of preserved kererū from the taste and texture.

11. 12 On several of our hikoi up to Te Ahu Turanga – kererū would fly from across the river parts of the bush to feast on the matai on the western side of the gorge. They are the natural gardeners of the ngāhere, as they are one the few birds left large enough to devour a karaka, tawa or matai berry whole, digest the flesh of the fruit then excrete the seed out in other parts of the forest allowing for natural dispersal of the plant throughout the ngāhere.

#### *Piwakawaka (Fantail)*

11. 13 These small friendly birds were seen in most locations in the designation and outside of it where enabling works have been underway. It is a very social species and flits around when people enter the bush, sometimes feeding on the insects that are disturbed as you walk through the bush. The greatest presence of the bird was noted below the Gorge Carpark at the start of the walking track, where both the multi-coloured fantail (Pied Fantail) and the Black Fantail were abundant. Steeped in Māori tradition the fantail sometimes promotes fear in many Māori, where it is seen as a bad omen should a fantail enter a house. Māori have different dialectal names for this bird depending on the reo of the Iwi where the bird resides.

11. 14 *‘There were large numbers of piwakawaka as we walked down towards Parahaki Island and they could be acknowledged as the kaitiaki of this island through the connection with Hine-nui-te-po because often this bird is referred to as the messenger of the goddess of death. As there are many people buried on this Island, so in the Māori world each of these small birds could be representative of the wairua of the individuals who rest in peace on this piece of whenua’.*

#### *Karearea (New Zealand Falcon)*

11. 15 During our site visits the Karearea was sometimes seen but more on the Western side of the designated route, with the odd bird flying solo scoping out its prey. Māori looked at the karearea as the tohu or indicator of the various weather patterns on a daily basis, hence one of its names *kauaua* is associated with the onset of rain. Early European settlers would sometimes refer to the falcon as ‘the rain bird’.

An old whakatauki attributes the onset of rain with the karearea: -

*"Ka tangi te karearea ki waenga o te rangi pai, ka ua apopo, ka tangi ki waenga o te rangi ua, ka paki apopo’.*

*‘If the falcon screams on a fine day, it will rain on the morrow, if it screams on a rainy day it will be fine on the morrow’.*

11. 16 This bird is scarce in its natural environment and can be distinguished from the harrier hawk the colouring of its plumage and its smaller size when mature. It usually flies at higher altitudes than the Hawk. The other difference is that the karearea has a more gracious style of flight with its chest pushed out and it is more aerodynamic than the Harrier. In Māori tradition the old Maori kites that were sometimes used to relay messages from one hapū to the next, were sometimes modelled on the shape of the karearea but with a human head.

*NKKTNAR have concerns around the risks and threats posed to the karearea from predation on the highway where it may go to access animals that have been killed by traffic – rabbits, hares, possums.*

#### *Kōtare (King fisher)*

11. 17 The Kōtare was observed throughout Te Ahu Turanga designation and on the outskirts. Often seen perched on powerlines or in trees overlooking a waterway, kōtare are territorial and are often seen as individuals and have startling iridescent blue and yellow plumage. During our hikoi to assess the impacts of the enabling works we would see a single kotare perched in a tōtara overlooking what we were doing. Kōtare feed on a diet of small fish and crustacea but will also source small birds, insects, lizards and rodents. The kōtare captures its prey in its beak and dashes against its perch to kill or stun its prey before swallowing it headfirst.

*‘On the Meridian Block, five kotare were viewed flying around the two ponds. The catchment of 1200 acres is drained by several streams all merging into one which flows into a large pond on Graham Bolton’s block, outside of the designation. This catchment obviously provides good habitat for the kotare to live in and an ample supply of food.*

11. 18 In the early years of the Acclimatisation Society a bounty was put on kingfishers because they had been attacking the common sparrow. Some species are native while others were introduced from Australia and Britain to deal with insect pests which were having an impact on pastoral land once the bush had been cleared and pasture established. The kōtare was one of the few birds not reliant on the bush as its food supply, and it is often observed in open areas.

#### *Korimako (Bellbird)*

11. 19 Both within and outside the designation, we noted the Korimako on numerous occasions, mostly around the site that was noted as high value on the western side of the alignment near the new bridge and eco-viaduct will be built. On numerous occasions we noted 4 - 6 korimako, possibly male/female pairings. This bird is recognised as having one of the most melodious voices of all indigenous birds in New Zealand.



11. 20 Captain Cook gave the Bellbird its English name and referred to it in one of his diaries as, '*a concert in eccentric parts*' with reference to the birdsong and chorus, with Joseph Banks one of Cook's officers likening the song of the bellbird to '*small bells exquisitely tuned*'. Sadly, the chorus is seldom heard now.

11. 21 The korimako has an impeccable whakapapa extending back through *Tāne-te-hokahoka* and *Kahu-purauri* to *Rehua*, an attendant to Io, the Supreme being in Māori tradition. *Punaweko* and *Tuwhaia* are also kaitiaki of this Manu. Traditional Māori acknowledged the korimako as a '*manuhiri*,' a visitor and '*a bird of passage*'. Māori greeted the korimako saying '*Haere mai ra e te manuhiri tuarangi*' (Welcome stranger from afar), as an acknowledgment of its whakapapa and spiritual origins. Our tipuna were known to be able to enter into a dialogue with the birds, with certain notes in the korimako's song of a tohu, an indication of rain approaching.

11. 22 The korimako is a manu of wairua, able to carry messages to ngā Atua. In some more solemn rituals, the korimako was killed and placed on the '*ahurewa*' the sacred post or altar of sacrifice as an offering to the Atua. Such events and the presence of the korimako within close proximity to Whariti, which is also an ancient ahurewa and place of traditional sacrifice are of huge significance to Kahungunu ki Tāmaki nui-a-Rua and other Iwi who whakapapa to Te Maunga Ruahine

11. 23 In traditional tikanga, when a tamariki tāne of Rangatira/Ariki nui status was named, a large hāngi would be prepared for manuhiri, a second hāngi prepared for female assistants of the tohunga, and a third small hāngi for ceremonial use. In this a single korimako was cooked and the flesh of the korimako eaten by the tohunga so that the newly born tamariki tāne might have a sweet voice like the korimako and become a *Kaikōrero* of mana. As the Rangatahi Ariki grew and approached manhood, he was periodically fed on the flesh of the korimako, so he might acquire *ngā koha*, and when successful orator status was attained, he was referred to as a korimako.

11. 24 Māori would sometimes feast on the korimako, with many birds required where after plucking, the birds were cooked whole with intestines intact in the hāngi. This led to a decline of korimako. Along with the loss of habitat and competition for food from introduced birds like crows and blackbirds, which were driving them off as roads were gradually cut through the bush. The introduction of bees as well, competing for nectar from the same flowers that the korimako fed from, and the increase in mammalian pests like rats who savaged the korimako's young. More recently the korimako has adapted to feeding off exotic species like bluegum and other introduced species.

#### *Titipounamu (Rifleman)*

11. 25 This is New Zealand's smallest bird and was visible on the western side of Te Ahu a Turanga, where the Eco-viaduct will be sited. Two birds were seen possibly a breeding pair.

We have not seen the bird anywhere else on the edges of the ngāhere outside the designation.

In terms of Māori traditions, the titipounamu was sometimes seen as a messenger to the Atua despite its size. Translated, titipounamu comes from *titi* meaning a mirage or a vision, and *pounamu* meaning greenstone, which was highly valued. It can also refer to the green plumage on the upper body of the male of the species. The voice of the titipounamu is very high pitched. The other name for the titipounamu was the *pihipihi*.

#### *Ruru (Morepork - owl)*

11. 26 During one of our site visits to the new alignment, while walking along the edge of the bush line a large bird swooped across the top and perched in a tawa tree. This bird was an owl, cloaked in heavy brown plumage, and with large eyes staring at us.

They are quite plentiful in and around the bush canopy with good habitat and a good sources of food, mainly nocturnal it often feeds at dusk and through at night. When seen during the day it is likely being protective of its territory.

11. 27 The ruru is often referred to as the '*hidden bird of Tāne*'. Māori see the ruru as one of the birds that owes its allegiance to Tāne Mahuta, Atua of the ngāhere – '*Te ruru noho motū*' - the owl which resides in the depths of the forest. There are several traditional accounts of how the ruru came to live on the earth and in the bush.

One account is that ruru the owl is gifted as the son of 'Te Arawaru' who in turn is a son of Ranginui and Papatūānuku. In traditional times Māori looked on the ruru as a bad omen, and fear of the bird still exists among Māori today, who still understand the old ways. Sadly, many of these old traditions are categorised as myths by some and not acknowledged in terms of their application within the natural world, where they help to maintain balance and integration between the spiritual and the physical – Te kauae runga, te kauae raro - the human world with the world of the Atua.

11. 28 The Ruru was also regarded as an omen, foretelling death, particularly the sight of an albino ruru perched outside one's house. Two familiar whakatauaiki are: -

*'Ko te ruru tangi po ko te manu whatuapua'* - An owl that cries in the night is a demon bird', and *'Kua puta ano ruru'* -The owl is out of its hole again', indicating the need for caution.

11. 29 The ruru was believed to be a bird associated with the power of '*makutu*' the power of witchcraft as practised by some tohunga. The ruru has unique eyes, with a membrane that Māori call a '*karukaru*'. These are like shutters, close and open horizontally and are said to protect the eyes from the light. If the ruru was eaten by Māori, its eyes were not. Some traditions go back to when Māori arrived in Aotearoa. On seeing the ruru and its large eyes, it was credited with being associated with the supernatural and the spiritual world. The '*pukana*', a feature of traditional kapa haka, is said to be derived from the ruru. Other oral

traditions around this bird concern the voice of the bird being heard at the junction of two bush tracks – when it was an indication that a *taua* (war party) was on the move within the vicinity.

11. 30 Māori identified the male bird from the female bird by their voice, with the male bird called the '*Koukou*' its voice is '*tanohu*' of deeper tone. Heard during daylight it is a sign of impending rain, storms or gales. The female is called the '*Peho*', and its voice '*tiere*'. The ruru is deemed a taonga of Ngāti Kahungunu ki Tāmaki nui-a-Rua as it is for many other Iwi due to its connection to the spiritual world.

11. 31 There were many other bird species viewed during our site visits, both native and introduced, but this select group help portray the significance of the area as a cultural landscape, a place sacred to us. From a cultural perspective as opposed to an ecological perspective, NKKTNART view each and every one of these birds as being connected to us through whakapapa.

11. 32 As the manu are our taonga (as for other iwi/hapū), Ngāti Kahungunu ki Tāmaki nui-a-Rua seek the opportunity to have a greater presence in the monitoring and recording of these birds as part of their cultural impact assessment, to help analyse how the construction of the new road alignment will impact on the these and their habitat – from a cultural perspective. This may require continual cultural monitoring both during and following the completion of the highway. Other assessments of effects on avifauna have not considered the impacts from a cultural or tikanga Māori perspective.

## 12. He Kōrero Whakawhiti - Discussion

### Enabling works

12.1 There are numerous activities proposed for Te Ahu a Turanga Project. Some of these are described as enabling works, parts of which are located outside of the designation corridor. They are required to provide the necessary infrastructure and access to different sites and areas, for the conveyance of drilling rigs and support vehicles, earthmoving and road construction machinery and transport for staff<sup>29</sup>.

### Enabling works activities

12.2 Enabling works will include land disturbance, removal of vegetation and works within surface water bodies including: -

- The widening and strengthening of existing farm tracks by up to 2.5 metres
- The construction of new tracks
- Excavation for and construction of drainage channels to convey stormwater
- Creating better access to stream crossings
- Repair and strengthening of existing stream crossings
- Construction of new stream crossings including excavation of stream beds
- The construction of bridge supports and placement of box culverts in the stream bed
- Preparation of hardstands for machinery
- Phase 2 and Phase 3 geotechnical investigations including drilling and excavation of pits of 5 metres depth or more
- Removal/destruction of mature indigenous trees and plants
- The excavation or disturbance of land associated with indigenous plant removal,
- Excavation, removal and disposal of soil and overburden

### Actual and potential effects

12.3 The effects of the activities of the enabling works are: -

- An increase in spatial extent of impermeable land cover and increased runoff from these areas and from upgraded tracks
- Increase in stormwater volume and contaminant discharge to surface water
- Higher concentrations of contaminants due to more traffic movements
- Loss of indigenous plants and biodiversity
- Effects on the existing natural character of streams and effects on their values (as prescribed in Schedule B of the OnePlan)
- Disruption to fish spawning and fish passage during works in streams
- Temporary discharge of sediments to streams during excavation of streambed
- Permanent change to stream flow characteristics
- Disturbance/ disruption to indigenous bird life

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<sup>29</sup> An array of machinery including bulldozers, diggers, scrapers, drilling rigs, trucks and trailers, and staff transport vehicles, etc.



- Effects on cultural values and their attributes, including: -
  - Effects on Mauri, where some of the activities are Mauri diminishing in terms of destruction of indigenous plant cover
  - Effects on the Mauri of waterways in that they will diminish or disrupt the natural character of streams, existing habitat, and their life-supporting capacity
  - Interference with the prevailing hydrological state, and the potential to disrupt fish spawning and fish migration, and
  - Adverse effects on indigenous birds including their numbers, cohort, diversity, breeding patterns and capability, and their food resources
  - Adversely affect the relationship that Ngāti Kahungunu have with natural resources in accordance with tikanga Māori.

12.4 The activities are across a range of different sub-catchments that eventually converge with and flow into the Manawatū River. The main sub-catchments affected by proposed activities within the Tararua District are the Mangamanaia Stream which is part of Mana\_9c in Schedule B of the OnePlan, and Mana 10a which includes the Upper Gorge section. The Manga-manaia flows into the Manga-atua Stream before its confluence with the Manawatū River

12.5 The effects from the enabling works were assessed as being ‘less than minor’ by NZTA’s planners. We agree with their assessment with the exception of: -

- The land disturbance required for widening of existing farm tracks and the placement of channeling for the conveyance of stormwater
- The works associated with the placement of box culverts across streams where they are in catchments with Mauri, Sites of Significance – Aquatic or Natural State values
- Any removal of mature indigenous trees unless appropriate mitigation can be achieved within the immediate area, and
- The works associated with the diversion of streams and use of culverts and pipes as conduits for streams
- The management of stormwater
- The deposition of sediments into streams

### Construction and related activities

12.6 The construction of the new highway and related activities that will be undertaken as part of the new highway project include: -

- Bridges and the Manawatu River
  - The occupation of space above the riverbed
  - Occupation of space/riverbed within the river channel
  - Excavation activities associated with the above
  - Vegetation removal including taonga species

- Construction of an 'eco-bridge' and support structures and associated occupation of space
- Excavation for the supports
- Effects on native fish and on trout
- Effects on fish passage, fish spawning and on freshwater crustacea
- Diversion of river to another channel (for some proposed bridge designs)
- Bridges, culverts and tributary streams
  - The occupation of space above the streambed
  - Occupation of space/stream bed
  - The placement of culverts in the streambed
  - The diversion and/or confinement of streams within structures
  - Land disturbance and vegetation removal
  - Excavation activities associated with the above
  - The removal and/or disposal of soils and other substances
- Constructing access tracks and connections to and from other roads
  - Cuttings and deviations and the removal of soils and substrate
  - Disposal of soils and other substances
  - Destruction and removal of part QE2 block including mature trees and shrubs
- The disposal of soils along the highway corridor and on adjacent land
- The removal of water-bearing layers in streambeds and on land, some of which may be outside of the designation
- The removal of indigenous trees (taonga) and plant cover
- The discharge of stormwater to land and to water
- The discharge of other contaminants associated with stormwater
- Construction of infrastructure - swales and channels to convey stormwater and contaminants
- Activities in rare or threatened habitats
- The disturbance of whenua within a cultural landscape
- The potential disturbance or destruction of archaeological sites

12.7 There are several assumptions made in the resource consent applications. Some of these contribute to conclusions that may not be entirely accurate, and conclusions are then applied to mitigation related activities that do not address the whole range of effects, e. g. those effects on cultural values and attributes.

12.8 Ngāti Kahungunu ki Tāmaki nui-a-Rua have not been able to spend sufficient time on site to carry out cultural health assessments on the numerous streams that traverse the new highway route. Ecologists have been commissioned to do various studies of the streams and have drafted reports related to their research. From these they have deduced 'value' and graded scores for the streams or for different reaches of them, that infer a specific 'value' or 'rating'. These have then been used to quantify the significance of each stream or stream reach, and this process has then informed an offset, an ecological compensation ratio and/or a mitigation response. Each grading, stream score or mitigation has been assessed in the

absence of a cultural assessment for each of the streams or stream reaches taking into consideration ecologists don't look through a cultural perspective.

12.9 In similar fashion, the terrestrial/ecological evaluations and resultant environmental scores, gradings and mitigations for indigenous or exotic plant cover, have also lacked appropriate levels of cultural evaluation or assessment, which is instead contained in this document. The ecological work was undertaken to inform the Notice of Requirement process and the stream work undertaken by EOS Ecology and Boffa Miskell from February 2017 onwards.

### Stream diversions

12.10 These activities will affect over 13.4 kms of streams and the aquatic habitat and species within them. The diversion of streams will result in the loss of sinuosity which is a part of the natural character of streams, which provides vortices and variety of habitat throughout a stream. Through their action vortices act as moderators of temperature as they contribute to the mixing of the shallow water with the deeper water on stream bends. They also assist with oxygenation of the water, while straightening out of streams diminishes their natural action as well as their mauri.

12.11 Fish rely on differences in flow to assist them in swimming upstream and/or to cooler parts of the catchments, while the straightening out of streams restricts this natural pattern and requires more energy from fish to travel.

12.12 NZTA plans to run streams through culverts and/or pipes to traverse the highway or to divert them further down the catchment. Within the Resource Management Act, a river is:

*'...a continually or intermittently flowing body of fresh water; and includes a stream and modified watercourse; but does not include any artificial watercourse (including an irrigation canal, water supply race, canal for the supply of water for electricity power generation, and farm drainage canal)'*

Where NZTA proposes running a stream through a pipe, then that would logically be an artificial water course and the water emerging from it would be a discharge to the environment.

12.13 Ngāti Kahungunu would like to be involved in and resourced for involvement in all stream diversions or stream work and discharges to streams within the Tararua District, including for:

- Designing of the diversion(s) to ensure they mimic natural processes as much as possible
- Minimising adverse effects on hydrology
- Fish capture and release where these are proposed
- Minimising adverse effects on aquatic taonga species and their sensitive life stages

- Riparian enhancement programmes and site rehabilitation
- Ensuring fish passage is provided for especially during spawning and migration periods
- Cultural monitoring and assessment of streams
- Ensuring the Mauri of streams is not diminished excessively

### Terrestrial activities

12. 14 The main areas of concern here are with the potential: -

- Destruction and interference with archaeological assets
- Appropriate management of processes and taonga associated with the above
- Removal of indigenous vegetation and its management
- Allowance for suitable trees and saplings to be used for cultural purposes
- Planting programmes and involvement in these both pre and post construction
- The discharge of stormwater and stormwater management
- Appropriate restrictions on soil disturbance and management of bare areas during inclement weather
- Soil and aggregate disposal sites and their location and management
- Cultural monitoring of on-site activities
- Monitoring of mitigation programmes
- Interference with the natural hydrology of the area
- Cultural safety and awareness

12. 15 To date, NZTA has been operating without the safety net of an Accidental Discovery Protocol or Archaeological Authority, with recent activities inclusive of excavating pits of up to 5 – 6 metres deep<sup>30</sup>. If these are to continue as part of the operations, it would be helpful if our representatives could be present especially during the excavation of the first metre, or the first 2 metres if these pits are on flat land and/or adjacent to streams. NKKTNAR have been consulted on the proposed Archeological Authority, but the process seems to be out of synch with landuse activities, and not likely to be approved before late March or April 2020.

12. 16 The removal of indigenous vegetation will be ongoing as a key part of Te Ahu a Turanga project. NKKTNAR seek the right to select specific trees for future cultural uses where they lie within the designation. As articulated earlier in this report, these are our taonga and part of our whakapapa connection to the whenua. It would be useful to also have access to small shrubs and saplings that have regenerated within areas required for the highway and/or its infrastructure, or within soil disposal areas. We would also like to be involved with indigenous biodiversity enhancement programmes and utilise tikanga Māori methods to help implement these.

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<sup>30</sup> Stage 2 and Stage 3 geotechnical investigations.



12. 17 The disposal sites within valley settings are a potential problem where they intersect with or have the capacity to disrupt existing natural hydrology and intermittent streams. Inappropriate use of these sites can reduce aquatic biodiversity in that they impose barriers to fish migration and fish recruitment within middle and upper catchments. Detailed design of disposal sites in conjunction with NKKTNAR will be important.

12. 18 Ensuring appropriate stormwater treatment and disposal will be a major part of Te Ahu a Turanga project. In addition to stormwater treatment ponds, the creation of biodiversity wetlands alongside stormwater treatment facilities would provide the opportunity for cultural mitigation and educational pursuits. It would also help to address the 'no net loss of indigenous biodiversity' policy in the OnePlan.

12. 19 We note that there is a restriction on earthworks whereby some are restricted to the months October to April. This is a sensible approach and something that is reflected in other regions. NKKTNAR would like to see this embedded within outline plans and subsidiary plans, and strictly adhered to given the high rainfall events that commonly occur within Tararua and Manawatū Districts, particularly within the Ranges.

12. 20 The cultural monitoring of NZTA activities by our team of monitors has been restricted in the past due to the health and safety requirement to have an NZTA employee alongside our team. It would be useful to look at this requirement for the duration of the project, as with the likelihood of multiple sites operating simultaneously throughout the highway route, we would need to increase the number of cultural monitors from NKKTNAR to four. This would ensure our ability to cover multiple sites in a safe manner.

12. 21 In some instances, NKKTNAR are asked to respond to new issues, designs and proposals from NZTA within a turnaround of one week or less. NKKTNAR operate through our own governance structure which is our Board of Trustees. For the highway project to date, and for appropriate oversight and cultural safety, our BoT would need to have the appropriate information on which to base a sound decision, and then the outcome could be relayed to NZTA. The current methodology and timeframes are not really appropriate. It is better to take the time required to make a sound decision on all relevant information, rather than make a decision in haste and then have to come back and readdress it because all potential issues have not been contemplated or resolved through sound decision-making. That said, NKKTNAR acknowledge the importance of the project and the urgency with which it is being progressed.

12. 22 We note that the outline plans and subsidiary plans required have not yet been drafted. As they will include significant detail on how specific actions and responses will be managed for the upcoming works, and how they will be monitored and reported on, then it is necessary to have these plans available in plenty of time so that iwi organisations and others can peruse them and assist where necessary. The Tangata Whenua Values Monitoring Plan is one such plan.

### *13. He Korero Whakatau – Conclusions and Recommendations*

13.1 The key issues from a Kahungunu perspective are the ability for the project to be both inclusive and supportive of Iwi participation at appropriate levels, and in a way that allows sufficient time for all levels of engagement and robust decision-making. With the timeframes and the pressures they create, it is like Iwi organisations are constantly in arrears in terms of timely supply of information, timely access to sites and areas, the availability of NZTA staff to accompany our whānau for site visits of specific areas, and some works or programmes being underway before our monitors have been given the opportunity to attend.

13.2 The different elements of the project are progressing in sequence, with the CIAs being sought prior to project design completion (in order to inform the design), and finalised afterwards. The difficulty in quantifying the project's effects from a cultural perspective has related to an inability to spend adequate time on site to undertake the assessment, as discussed above.

13.3 Cultural safety does not seem to be given the priority it requires, with both the Archaeological Authority and Accidental Discovery Protocol still requiring participation and approval from the statutory bodies and iwi partners. Resourcing to cover the time and expertise required for participation at an appropriate level to cover all matters that intersect with cultural values and attributes, is uncertain. The following recommendations are made on a without prejudice basis while taking into account that not all information necessary to undertake a full cultural impact assessment of Te Ahu a Turanga project and its multiple activities has been accessible or available. As a consequence, the assessment of all cultural/environmental effects arising from the project is not possible at this time. The recommendations are therefore made on an 'interim' basis.

13.4 In reference to Appendix K Ngāti Kahungunu ki Tāmaki nui-a-Rua Cultural Impact Assessment – NZTA Response table. The proposed responses are in progress and are easing concerns providing a clear pathway to resolving and working through remaining concerns and issues in a manner that appropriately manages effects.

## Recommendations

### 13.3

- Prioritise the drafting and release of the Outline Plan and the Tangata Whenua Values Monitoring Plan
- Prioritise the Archaeological Authority and its approval from Pouhere Taonga Heritage New Zealand
- Facilitate the drafting of the Tangata Whenua Values Monitoring Plan as soon as practicable given the requirement for it to inform both the enabling and construction works as per Condition 30 of the Designation
- Enable cultural monitoring and assessment of the aquatic environments and their margins by NKKTNAR
- Enable tikanga o Kahungunu processes, procedures and concepts for both terrestrial aquatic data collection
- Increase the number of cultural monitors for Ngāti Kahungunu to 4 persons so as to be ready for the recommencement of the enabling works 2020
- Ensure more timely provision of information from NZTA to iwi partners with an appropriate level of resourcing and sufficient time provision for iwi internal decision-making processes and informed input
- Incorporate more Māori concepts into project design elements
- Ensure that OnePlan provisions/values for streams are provided for
- Enable tikanga o Kahungunu processes, procedures and concepts for Taonga discovered and/or removed throughout the entirety of the project which includes where it will be stored or returned to the appropriate place agreed to by NKKTNAR.

## 14. Glossary

|                           |                        |
|---------------------------|------------------------|
| Ara tawhito               | Manga                  |
| Atua                      | Maui                   |
| Hīnaki                    | Taniwha                |
| Hinu                      | Taunaha                |
| Kainga                    | Taonga                 |
| Karakia                   | Taonga tuku Iho        |
| Kererū                    | Mahinga kai            |
| Korowai                   | Mahinga mātaitai       |
| Tuahu – altars or shrines | Tūākana                |
| Rūaumoko                  | Tutu – coriaria aborea |
| Ranginui                  | Waka                   |
| Papatūānuku               | Tuna                   |
| Kaitiaki                  | Tuna heke              |
| Te Ao Marama              | Matauranga Māori       |
| Hui                       | Tikanga Māori          |
| Tapu                      | Te Ao Mārama           |
| Tuakana                   | Kākahi                 |
| Wahi tapu                 | Makākahi               |
| Rongoā                    | Mangatainoka           |
| Tuakana                   |                        |
| Tipu                      |                        |



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**Page 36** - Ballance - between the River and Range 1890-1990. Incorporating Makomako and Mangahao Districts. Compiled by the Ballance School and District Centennial Committee 1990. Refer page 12-13 1842-1886.

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**Page 39** - National Institute of Water and Atmospheric Research.

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**Page 40** - Country News - The New Zealand Mail, Issue 1440, 5 October 1899: Woodville Examiner, Volume XXII, Issue 3952, 14 November 1906.

On a pathway to extinction - an investigation into the status and management of the longfin eel: Parliamentary Commissioner for the Environment, April 2013.

**Page 44** - Te Waka Kawatini was a kaumatua of Ngāti Hineuru and Ngāti Matepu and a major player in the petitioning for Māori land in Hawke's Bay in the 1860's and 1870's.

## Appendix A

### Enabling Works Report

After the site visits, in conjunction with the documentation circulated prior to the site visit contained all of the relevant data which enabled Ngāti Kahungunu ki Tāmaki nui-a-Rua to be able to make an informative decision around supporting the proposed enabling works, with a couple of concerns which we can work through to satisfy both Treaty Partners.

#### Access Track 1

This track is within the rohe of Raukawa however Ngāti Kahungunu ki Tāmaki nui-a-Rua have had a presence here in the distant past with the major stream that the proposed enabling works is moving away from the ford in the stream to a culvert and a clean-up of this stream.

*"The war-party then climbed over Te Ahu-o-Turanga " ( which is the name of the old Māori track starting from near Woodville , that passed over the spurs of the Rua-hine Mountains about a mile north of the Manawatū Gorge, and came down on the west side and crossed the Pohangina River a little above the present Railway Bridge.) and on the other (west side of the range ) gained the battle of **Te Wai-whakatahe-o-Ngāti Kahungunu** (the stream where Ngāti Kahungunu blood flowed- in days of the mana-Māori time was an unknown quantity and long names dis not require writing down.)*

*Ref: Incidents in the History of Horehore Pa Page 30 Polynesian Journal 1913*

Referencing only came about with the advent of colonisation, as stated in days of old Māori was an Oratory language passed on generationally, with historical events recorded this way, only a few of the names have been saved and recorded by early surveyors, who mapped much of this area.

**The mitigation with a general clean-up of this area and plantings of native plants will offset anything that maybe lost with the enabling works.**

#### Access Track 2

The concern around earthworks and the impact silting up will have on streams and the flow on effect into the Manawatū River, " this can be highlighted by a narrative from the Parliamentary Commissioner for the Environment report of 2013 around the Long-Fined Eel quoting " from the first settlement to the current day, people have changed the New Zealand landscape.

Early Māori burned large areas of forest, and in drier areas the forest did not regenerate, leading to an increase in erosion. European settlers felled trees for timber and later resorted to burning vast areas of forest to hasten the conversion to pasture. Without trees to hold the topsoil it was washed off land by heavy rain- ending up in waterways. Successive Governments continued to subsidise the clearance of land until the 1980s. Historical Documentation shows whole area was subject to large scale burning of the bush in the early days of colonization.

***This work should be monitored in all phases of the proposed enabling works***

### **Access Track 3**

Similar concerns as Access Track 2, Noted alongside one of the streams on our site visit was and old farm rubbish dump/offal pit leaching into this stream.

**The option of creating a new access track in this area should lead to this being cleaned up.**

### **Access Track 4**

Is of major concern to Ngāti Kahungunu ki Tāmaki nui-a-Rua because of its location and an increase in width, as this track passes over the beginning of the watercourse that ultimately feeds down into the Manawatū River, this catchment is 1200 acres, also with in the vicinity of this track is the old Woodville landfill which should not be disturbed, Ngāti Kahungunu ki Tāmaki nui-a-Rua accept over time leaching from this old landfill will have added to the pollution of these watercourses.

**As noted, this is the beginning of a series of ponds and waterways, that make a valuable series of ecosystems with immense "Taonga " to Ngāti Kahungunu ki Tāmaki nui-a-Rua.**

**Ngāti Kahungunu ki Tāmaki nui-a-Rua would like to place Fyke nets into the 3 ponds and into some of the streams prior to the commencement of an enabling works, to scope if Long Fined Tuna are present, as to date no real analytical data has been shown to disprove this, Ngāti Kahungunu ki Tāmaki nui-a-Rua see the Tuna as one of their most prized Taonga.**

From the viewpoint of Ngāti Kahungunu ki Tāmaki nui-a-Rua as a Treaty Partner with NZTA in this project I see no real issues around not supporting works as long as we have the opportunity to carry out the Cultural monitoring regarding the ponds and the streams prior to the commencement of any enabling works as well as a team of cultural monitors to be present during this process.

## **Appendix B**

### **Northern Alignment Report**

#### **1. Site visits and reduced impacts**

Accompanied by NZTA planning and engineering staff. Members of Kahungunu have been able to visit the various QEII Blocks that will potentially be affected by the designation. Following a site visit on Friday the 23 August 2019 we understand the following:

- That as a result of the proposed re-alignment of the designation corridor, that only a small portion of the QEII Block 1 will be lost, and much more of the regeneration forest will be saved;
  - With the advent of a replanting program to take place bordering the QEII Blocks, and the introduction of the Ecological Compensation Ratio, eventually a greater acreage of regenerating forest will be enabled, and
  - That QEII Block 2 will no longer be impacted at all
- Kahungunu ki Tāmaki nui-a-Rua support the alteration to the designation to move around the edge of the QEII Blocks, thus reducing the adverse environmental impacts of the designation and the subsequent Te Ahu a Turanga project.

Kahungunu support the new alignment however, are cognisant of the on-going challenges with the lack of a reasonable highway impacting not only on the economic base of Kahungunu and other iwi, but also on our social well-being, along with that of others in the Tararua District. Effective social cohesion and access to adequate health services is reliant on a sound transport link to Palmerston North Hospital.

#### **2. The natural environment and potential impacts**

Ngāti Kahungunu have seen many sacrifices around their natural environment in the past, and often they have had little opportunity for input to land management decisions, however for this project we consider that we have been satisfactorily consulted. We acknowledge that sometimes for the betterment of progress and the general well-being of all, sacrifices sometimes have to be made. We see this as being one of those times. Through engagement processes with NZTA staff and numerous

site visits with their representatives, there has been greater recognition given to the cultural values we hold, and we have highlighted specific areas we particularly have concerns about as well as places where we consider a higher level of protection is necessary. Although we have some concerns regarding the new alignment, we believe the majority of adverse effects can be mitigated or offset for a net environmental gain overall.

Concerns have been raised by some of our whānau members around the increased impact from the alteration to the alignment on an un-named stream. Other concerns relate to the portion of ngāhere to be removed from the western QEII Block. Through cultural monitoring and site visits, representatives of Kahungunu have had the opportunity to scope out most of the land area designated for the new alignment and also some areas outside the designation corridor as this is where Ngāti Kahungunu believe the greatest impacts on the ngāhere, on the streams and on bird life will occur.

Following the reconfiguration of the new alignment, the loss of less habitat within the QEII Blocks will result. This is seen by us as a positive and practical approach. This approach retains much more of the ngāhere, than the previous option.

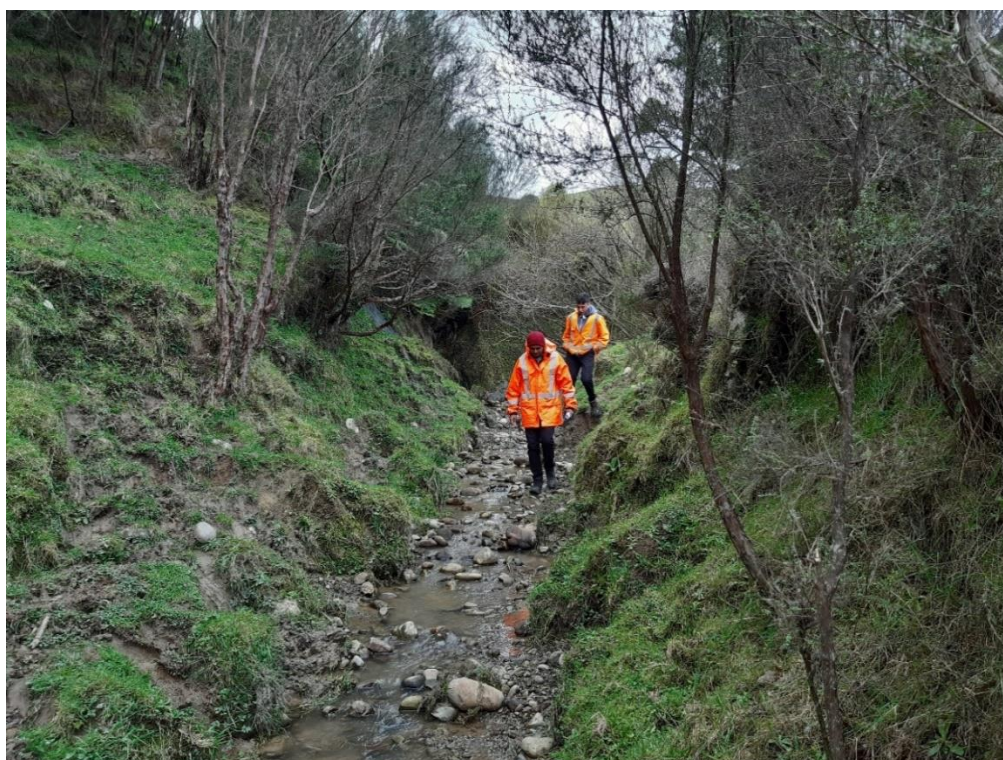
Prior to the commencement of earthworks or the felling of any trees/shrubland, Ngāti Kahungunu would like a blessing carried out to honour our tūākana (namely the indigenous trees). Also, for works within streambeds and/or stream diversions. In addition, we request the right to harvest the saplings growing under the bush canopy so they can be utilised for cultural purposes or replanted in and around the completed alignment.

On the edge of the QEII Block closest to the western side is a large Tōtara. With the removal of this tree, timbers from this tipu should be given as koha to Iwi. In addition to this, prior to any construction work occurring Ngāti Kahungunu would like to harvest seeds from this tree. In similar vein, the ngāhere to be removed includes an old nikau palm. Ngāti Kahungunu would like to harvest seeds from this nikau palm.

On 6 September 2019 representatives of Kahungunu went on a hikoi (walk) accompanied by NZTA staff to study the stream that will be most impacted by the new alignment. The team walked the length of this stream and felt pōuri (sadness) for the way the stream had been abused. There was a large herd of beef cattle in the paddock and with unfettered access to the stream. In places the stream banks had collapsed, and the cattle had desecrated the waters and stream margins by urinating and defecating around and within this stream.



**Figure 1:** Incised stream channel and small waterfall



**Figure 2:** Inspecting the stream that flows down towards the Conservation Estate.



The team then followed the stream to where it enters the Conservation Estate and flows through it polluting the ngāhere before discharging into the Manawatū River. The Iwi felt disheartened by the state of the stream here as much of the conservation lands contain many taonga which are held in the highest esteem by Ngāti Kahungunu. Most of the springs that feed this stream have been trampled through by stock. We considered the entire area a disgrace. Where the stream bank was exposed, fully intact fossils (ancient shells) in the banks were present. In one particular area where a side stream flowed into the mainstream, a beautiful waterfall was visible with some unique plants traditionally used by Māori for medicinal purposes.

On the banks of this stream a plant was found that Māori have used as a rongoā for aiding child-birth and assisting women during menstruation. It also has characteristics that help with the clotting of blood. Women were often referred to as *whare tangata* and the female reproductive organs are regarded as the doorway between the physical and spiritual worlds.

One other concern Ngāti Kahungunu have is with the potential impacts on the stream north of the proposed alignment during construction or enabling works. This stream is significant to Ngāti Kahungunu as the old Māori trail followed the stream down to its discharge point into the Pohangina River.



**Figure 3:** Close up view of the discoloured water at the base of the small waterfall and the presence of fossils



**Figure 4:** Some of the degradation caused by livestock.

### **3. Recommendations**

- **The fencing off and replanting of stream margins/riparian areas for the betterment of stream health and to uphold tikanga Māori values for generations to come.**
- **In addition, cultural monitoring for 5 years post project completion as many of the cultural impacts and mitigation activities Ngāti Kahungunu have concerns about will need to be monitored closely for effectiveness.**
- **Allowance for cultural practices (karakia/blessings) prior to the commencement of tree felling or clearance of shrublands.**
- **The ability for Ngāti Kahungunu representatives to harvest seedlings and saplings from the ngāhere remnants targeted for clearance, including for enabling works**
- **The right to select indigenous trees for timber recovery and for cultural purposes where they are to be felled as part of the project.**
- **Collection of seeds from selected trees or areas that are due for land clearance or modification.**

## RECOMMENDATIONS

As well as highlighted recommendations throughout the document listed below are provided on a “without prejudice” basis as they are considered to be culturally appropriate, and/or capable of enabling greater co-operation between all parties engaged as contributors to the project.

- The use of appropriate karakia, to acknowledge the spiritual realm, our origins, our ancestors, and to imbue the journeys we undertake together with spiritual, physical and cultural safety at the start, during and to the finish point when work commences;
- Adherence to an accidental discovery protocol<sup>31</sup> drafted in consultation with tangata whenua should any cultural taonga be uncovered during proposed works, particularly during planting projects, fencing activities or re-alignment of tracks.
- Planting teams and volunteers could be instructed on the requirements of the protocol prior to commencement of the restoration programme or parts thereof;
- Consideration of a calendar for planting and pest management that aligns with the start of Matariki, and with the Maramataka;
- As required, the inspection and stabilising of plants to assist with plant survival;
- Where possible, align different parts of the Cultural Restoration Programme.
- Adoption of educational and community projects that involve school students on a regular basis;
- Surveys and monitoring of habitat and taonga species that includes elements of cultural monitoring.

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### **Additional document to Appendix B**

NKKTNAR are receiving numerous documents that describe additional activities. One of these is for a water take from the Manawatū River, which is part of a package of enabling works for the project. Perusal and assessment of the relevant documentation does not form part of this assessment, but the following comments are made on the regulatory framework.

There is still water available within the core allocation for the part of the Manawatū River that NZTA proposes to abstract water from, so that isn't a problem normally, as core allocations are regulated through the minimum flow of 12,240 lps at the Teachers' College monitoring site, and most abstractions of water from this zone are required to cease when the river falls below that level. The minimum flow and total core allocations are set to help uphold the values in Schedule B of the OnePlan. These include Mauri (Mau), Aquatic Ecosystem health (AE), Sites of Significance - Aquatic (SoS-A) and Assimilative Capacity A (the ability to dilute/assimilate contaminants). The minimum flow at Teachers' College is also inclusive of inflows from the Pohangina River and Aokautere Stream, both of which are below the proposed site for the water take. The Pohangina contributes significant flow to the Manawatū River.

NZTA proposes taking water when the flow is below the 12,240 lps level, so therefore would detract from the values stated above. The proposal is a non-complying activity, and there is a presumption that NZTA taking water when the awa is below the minimum flow will have 'less than minor' effects, but there are also numerous existing water takes for permitted or essential activities that continue when the river is below its minimum flow – e. g. domestic use, stock water, municipal supply, so there is a need to consider the cumulative effects of all these activities, plus what NZTA proposed taking below the minimum flow<sup>32</sup>. The cumulative total and instantaneous rate of take could be substantial.

There is also the need to convey the water from the awa to three reservoirs which will require installation of infrastructure - pumps, pipes or hoses, land clearance and construction of the reservoirs, and land disturbance to install the pipes from source to storage.

In consideration of the water take proposed for when the minimum flow is below 12,240 lps (1000lps @ 40 lps), has the potential to cause effects that are more than minor, particularly during the summer/autumn period. As it will cause adverse effects on aquatic habitat to an increasing degree the further flows recede below 12,240 lps, we offer two potential mitigations: -

- With the effects on habitat and cultural values, one mitigation could be through enhancement of species populations, through building the reservoirs slightly larger than originally planned with a separated bunded area to be used for biodiversity and cultural enhancement purposes
- Limiting the 1000 lps to two alternative timeframes to reduce cumulative impact. As 100 m<sup>2</sup> per day would take approximately 7.4 hours to extract at 40 lps, split the water take into two durations of 3.7 hours each and separated by a period of 4 hours. In this manner the river would be less adversely affected.

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<sup>32</sup> 1000 cubic metres per day at a rate of 40 lps when the river drops below 12,240lps.

## Appendix C

### Spoil site Report



# Ngāti Kahungunu

## ki Tāmaki nui-a-Rua

### Report:

**Proposed spoil sites on the Eastern Side of the proposed roading alignment Te Ahu a Turanga : Tararua Manawatū Highway Project**

**Prepared by James Kendrick - Cultural Monitor KKTNAR**

**Site visit date: 13/01/2020**

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**Report proposed spoil sites on the Eastern Side of the proposed roading alignment Te Ahu a Turanga : Tararua Manawatu Highway Project**

**Prepared by James Kendrick - Cultural Monitor KKTNAR**

**Site visit date: 13/01/2020**

**Overview**

Prior to drafting any cultural written report Ngāti Kahungunu ki Tāmaki nui-a-Rua will always engage with the whenua, Papatuanuku our earth mother, by physically walking the proposed sites. A visual control is recorded of the area, more importantly it enables the kaimahi to spiritually re-connect with our mother Papatuanuku, our other siblings, our tuakana and seek guidance from them around the viability of the sites visited and how the overburden will impact on them and their homes.

The reference of tuakana refer to the trees of the ngahere, the manu that glide through the skies and use lakes and streams as places to feed as well as in the case of some the ground to nest on, the native fish that seek refuge in some of these streams, by walking the sites we are able to re-connect with each other as through whakapapa we connect as whanau.

In the Kahungunu world every living thing created by ngā Atua has a presence, a reason for being here, in many cases the reason is yet to be discovered, often the reason is found when they disappear. By working together on projects like this we get an understanding of the importance of having arterial routes connecting communities together, not much different to the old Māori Trails that many of the present roads have been built on, but the old Māori trails had minimal impact on the whenua and its inhabitants, through this process of engagement we learn from each other, we as tangata whenua acknowledge to move forward for the betterment of all we must make some sacrifices, this has always been our philosophy we are prepared to sacrifice to enable others to survive.









This pictures look at the Eastern side of the new road alignment and highlights some of the terrain and gullies which have feral streams present. Visible is some of the habitat in the main gully with the mix of scrub and some regeneration occurring, but the area of high traditional value is the stream that flows through here, having its source higher up in the valley surrounded by some nice examples of regenerating forest sheltered by some large pine trees and poplar stabilising the hills, this stream provides habitat for various fish species.

### **Spoil Sites:**

Our hikoi started from the top of the range following the proposed alignment and on the way down spoil sites were pointed out, and photographed and an explanation given as to why these sites were selected in conjunction to the bunding and construction of the road.

Also, discussion took place around the Geotech drilling operation that was taking place around the Mangamanaia Stream as well as the work around the test pits, on this part of the alignment.

Working our way down from the top coming off the Saddle Road before the main passing lane which sweeps around the top and ends at Cooks Road, near the old Woodville land fill site.

During our walkdown it was great to have Clare, Tristan and Tony from Goodman's with me as they were able to explain the alignment, and point out the proposed spoil sites.

**The first spoil site** is up a gully with a man-made dam for drinking water for stock, this is the proposed spoil site. Ngāti Kahungunu ki Tāmaki nui-a-Rua would like to put Fyke nets in and if present relocate any Tuna or any other fish life to other locations, apart from this I have no issues around this being a spoil site, it will help enhance the landscape, and could provide a place to do some indigenous plantings.



Spoil Site 1 looking towards the top of the range towards the Meridian complex





**Spoil Site 1** from a different view not being obstructed by the fence, as noted possibly spring fed but no streams feeding into it, also note the vegetation is scrub with poplars visible in the background, in behind this pond when walking up to it from the Western side is a gully that runs down towards the Manawatū River, this will not be impacted on by the initial alignment but care should be taken as there are some remnants of the indigenous ngahere left.

**Spoil Site 2** is located in a gully that follows the alignment down towards Woodville. There is a feral stream located within this gully and the majority of vegetation is scrub and gorse. This gully exits out into the main gully coming off the top visible from the Saddle Road as you travel to the top.







**Spoil site 2** - this photo shows where the gully to be filled in enters the main stream.

Note at the confluence are an array of regenerating indigenous trees, we believe these will not be touched as the fill stops short of this area.



Looking back up the gully proposed to be filled as Spoil site 2

**Spoil site 2** shows the gully as it runs down towards the main stream which is in the Gully to the left in behind the ridge, with alignment coming down the ridge on the right, as the photo highlights the varieties of vegetation which are exotic. This will give the landholder added plateau land for their farming operation, also at the end of the gully could be an opportunity to do some planting of the bigger podocarps like Rimu, Totara and matai.



**Spoil Site 3** is to the right of the ridge shown in the above photo with a farm dam at the top of the gully to be filled in, this will add value again to the property owners farm



This photo gives a good overview of the area to be used as a spoil site within the confines of the visible ridges, please note the photographer is standing on a ridge taking the photo. The hard right of the photo is where the alignment comes down from the top.



**Spoil site 3** - as can be seen this whole area is to be filled this photo shows a cluster of pine trees mid centre at the top, there is a dam on the other side of these trees, this will not be impacted on by the spoil site, but will create a large area of flat land for the property owner adding value to the property.



**Spoil Site 4** - runs up from the Mangamanaia stream, this spoil site will have minimal impact on the stream, but caution needs to be taken when construction begins as this stream is of significant cultural value to Ngāti Kahungunu ki Tāmaki nui-a-Rua.



**Spoil Site 4** is behind the pine trees but more to the right of the photograph

**Conclusion:** After a very successful site visit I am in a position on behalf of Ngāti Kahungunu ki Tāmaki nui-a-Rua *Conditional approval* to proceed with the proposed spoil sites with some points raised at each paragraph written around each spoil site.

These spoil sites are confined to the Eastern side of the alignment with no spoil sites being viewed across the top of the alignment or the Western side of the alignment.

***Recommendations:***

-That Ngāti Kahungunu ki Tāmaki nui-a-Rua is notified promptly on accidental discovery protocols during excavation operations.

-As previously requested Ngāti Kahungunu ki Tāmaki nui-a-Rua would like to set fyke nets in this dam and if present relocate any Tuna or any other fish life to other locations.

Spoil site 1 - care should be taken as there are some remnants of the indigenous ngahere left

Spoil site 2 - opportunity to do some planting of the bigger podocarps like Rimu, Totara and matai



## Appendix D



### AEE Document-Adjustment of wording for Ngāti Kahungunu ki Tāmaki nui-a-Rua

#### AEE document 2.2.5

*The Crown and Ngāti Kahungunu ki Wairarapa Tāmaki Nui-a-Rua initialled a Deed of Settlement in March 2018. The Deed, and accompanying documents similarly describe the relationship between Ngāti Kahungunu ki Wairarapa Tāmaki Nui-ā-Rua and their area of interest, including land that is subject to the Project. Ngāti Kahungunu ki Tāmaki nui-a-Rua continues to claim manawhenua interests in the boundaries set out in the DOS for Ngāti Kahungunu ki Wairarapa Tāmaki nui-a-Rua Settlement Trust.*

## Appendix E



**James Kendrick**

### **Feedback notes for the draft sketch (map)**

#### **Mangakino**

The trail, which appears to have been plucked out of the blue, comes off a part of the Saddle Road and skirts the edge of the stream which sits in a ravine. Rangitāne refer to this as 'Mangakino'. Ngāti Kahungunu refer to it as 'Te Wai-whakatahe-o-Ngāti Kahungunu' – 'The stream where Ngāti Kahungunu blood flowed'. This kōrero was passed on to me 20 years ago by a Kaumātua in his 80's, Ray Edwards, my wife's grandfather. This kōrero is also referenced by Tanguru-Tuhua in the Polynesian Journal, as an explanation of old history of Horehore Pā, Te Takapau, which his father, Tuhua, passed on to him in 1865.

#### **Manga-Atua stream**

The map depicts the Manga-Atua stream. This stream is in fact the furthest stream from the new alignment. The map must also include the Manga-Atua and the Manga-Manaia streams as these streams are within the closest proximity to the new alignment and will therefore be most impacted upon. The Manga-Papa stream is near the old Woodville cheese factory and is also the source of the Woodville town water supply. The Manga-Manaia is the stream which the new bridge will cross over and will therefore be most impacted upon. This stream should be a focus. The Manaia is the serpentine figurine often referred to in Māori mythology as the messenger to the Atua (Gods).

#### **Huia**

The Huia is a sacred bird to Māori and was obtained from the heavens by Tawhaki so his wife could adorn her hair with its feathers. Due to the sacredness of the Huia, only Rangatira of rank were permitted to adorn its feathers.

Huia feathers were tapu. Huia, in times of creation, were one of four Kaitiaki to the kuaha (door) to the 12<sup>th</sup> heaven. The Huia had twelve tail feathers. Huru-te-arangi, Atua of the winds, was called upon to affix the twelve tail feathers to the Huia. These signify the twelve months and the twelve periods of darkness of a year, as well as the twelve stages of development of a child before birth. The white feathers of the Huia were also attached to the neck of the Koko (Tui) and the twelve spines to the Nohu (Fish).

#### **Toke**

Not mentioned on the map is the trail which follows the Rapawai stream up over the Ruahine range to the head of the stream that discharges into the Pohangina river, called Te-toke-awa (the river of the

earthworm). The presence of the toke (earthworm) here is significant. The toke was fed to old people with mana whom were on the verge of death. The toke were named kurekure and whiri and were both prepared so they could be consumed by the old people before passing over. The preparation of these toke, which were very large worms, caused them to dissolve in water and were then fed to the old people as soup. The belief being that when the wairua left the body to transcend to the other world it did so with the sweet taste of food still in the mouth. Ngāti Kahungunu people tracked across to source these toke. The headwaters run from Oruahiore (Ross Peak). Due to their significance, the toke should also be depicted on the map.

### **Two sisters**

If the two sisters are to be depicted on this cultural map it must reference to the realms of Te Ao Māori.

### **Significance of the area**

There were seven traditional pathways right up to Rangiwahia/Taihape. A pathway that Ngāti Kahungunu used was a peak called Maharahara. This was also a recorded encounter of a battle that took place by Māori from Piripiri and from Arahuri over hunting grounds around the Makiekie creek.

The pond on Graham Bolton's property has 7/8 streams which feed it from a 1200-acre catchment. This is in the middle of the new alignment, the manawa (heart) of the new alignment. The large cluster of trees present there are Te Uru Taumatua, old growth rimu through to small babies. The uniqueness of the seed propagation here is determined by the wind that blows from the west to the east. Some of the trees present here are as significant as the Giant Kauri Tane Mahuta. They are the tipu, the oldest of the oldest.

The connection with the wairua ngā Atua in this area is recorded in the names of the streams. The name of the peak Wharite depicts the Atua connection with the Huia, the ngahere and the manu with the bird that exists in this area, the Titipounamu (the Rifleman), the smallest bird who, along with the Huia, was one of four Kaitiaki to the 12<sup>th</sup> heaven.

The peak had a significant vantage point as from this point the visibility across the area was vast. Maunga Ruapehu, Ngaruhoe Taranaki, Pukehou – the sacred hill that juts out of the Tararua range, the large sand dune that overlooks Levin, Kapiti Island, the hill that overlooks Putiki/Kaitoki in Whanganui are all visible from this vantage point.

The east side overlooks Pukaha, Whangai range, Mount Tuturewa, the gorge of the Māori trail to Porangahau, the three trails that come from the coast over the Puketoi range, the view of the Manawatū River and the Pā that are strategically located.

Karaka scattered through the area around the stream beside the raupo wetland. Raupo are a source of food and building material e.g. roofing on whare.

There are caves up in behind tier were the eco-viaduct/main bridge will sit.

The Matai grove in this area is where Kereru are prominent during fruiting with a flock of 32 kereru viewed in February 2019.

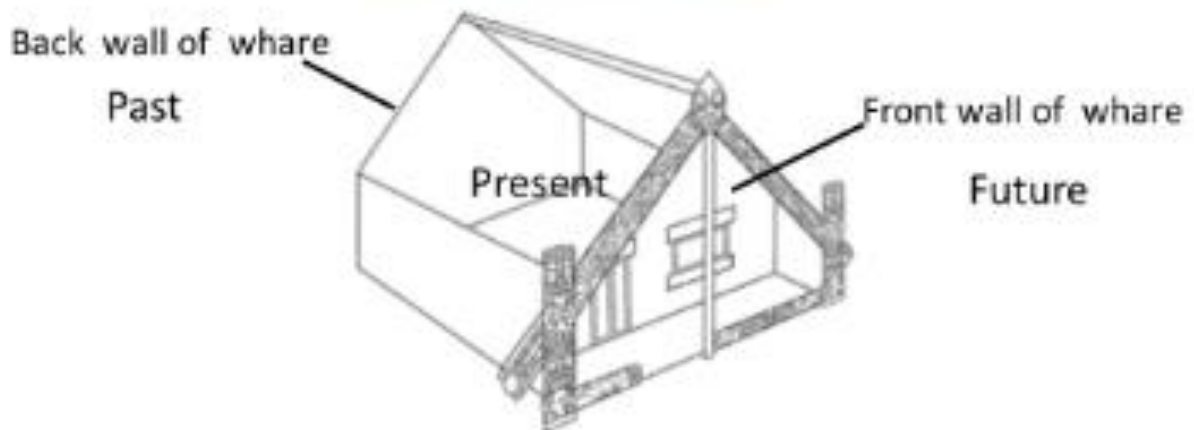
The entire area has immense spiritual significance and is the sacrificial altar to the Atua. The point where both the mortal world and the spiritual world came together.

There are large gardens at either end at the confluence of the Pohangina/Manawatū Rivers, due to the make up of the soils and flat land gouged out by the river leaving terraces. The same is evident at the Woodville end at the confluence of the Manawatū /Tiraumea, again on the flats. Kumara, Taro, Hue were grown.

There are five known Urupā between Ashurst and Woodville.

### Regarding the diagram with the circles of the past, present and future

The whareniui through the tahuhu gives us this depiction as well as in the figuration of the design. The design in a traditional old whare and is never complete. It does not have an end point as it allows for the further growth of the future.



The walls of the whare, back and front, separate us who live in the present from the past and future. The poho of the whare is the present, the now. This diagram is more appropriate and should replace the circles.

### Whatonga

Whatonga led the Kurahaupo waka and is an ancestor who several Iwi descend from. Rangitāne are one of those iwi. As Whatonga came before Rangitāne we question the 'Rangitane explorer' description, unless you are talking about another Whatonga which is highly unlikely as you use 'Te Tapere Nui o Whātonga'. To label him as a Rangitāne explorer could be seen as an insult to other iwi.

We would advise you look at this.



## Appendix F



### Water Take Feedback

Ngāti Kahungunu ki Tāmaki nui-a-Rua do not agree to take below the minimum flow for the following reasons as stated in previous emails

The minimum flow and total allocation is set to help uphold instream values including mauri, aquatic ecosystem health, Sites of significance - Aquatic and assimilative capacity (the ability to dilute / assimilate contaminants)

NZTA proposes taking water when the flow is below the 12,100 lps level, so therefore would detract from the values stated above

*Recommendation:*

- Cultural mitigation - part of this could be additional small dams next to the water storage dams or a buffer separated part for project koura or something similar.
- Extend the size of plan to build a bigger dam to accommodate and pull from a river that can accommodate flow rate
- When the existing dam that gets to a quarter of capacity look to weather forecast if no rain is forecast for the following week then start trucking in water.

## Appendix G



*Erosion and Sediment Control, Stormwater Management and Water Quality*

### *Feedback*

*There are a couple of points that we would like to raise from these documents*

*Tikanga Māori is defined in the RMA as meaning “Māori customary values and practices” and the same definition is used in the One Plan.*

*There is no mention of Tikanga Māori values throughout these documents and two of the documents there was no mention of iwi consultation at all.*

- (a) sedimentation effects from earthworks;
- (b) potential water quality impacts from vegetation clearance;
- (c) potential water quality impacts from use of concrete; and
- (d) stormwater discharges from long-term operation of the road.

### *Recommendation:*

- *The vegetation clearance management plan should include cultural monitoring of all above areas.*
- *This management programme should include cultural monitoring before construction, during and post construction works beginning.*

## Appendix H



Ngati Kahungunu ki Tamaki nui- a- Rua

Feedback for

### TE AHU A TURANGA: TECHNICAL ASSESSMENT

#### TERRESTRIAL ECOLOGY OFFSET AND COMPENSATION RESPONSE

**Below is a clause from the Resource Management Act 1991 that safe guards Māori Taonga, this needs to have more focus as it has mana in the above legislation and is overshadowed all the time/councils/crown have a responsibility to comply with (6) e**

Section 6 RMA 1991

(6) Matters of National Importance

In achieving the purpose of this Act, all persons, exercising functions and powers under it, in relation to managing the use development and protection of natural and physical resources, shall recognise and provide for the following matters of National Importance.

subclause (e)

The relationship of Māori and their culture and traditions with their ancestral lands, water sites, waahi tapu and other taonga

This references all taonga species in none of the documentation is it seen where this is emphasised and this clause comes from the RMA taonga include tuna, manu, rakau / non of the report references from a Maori perspective.

- *No inclusion of iwi participation throughout the document*
- **Page 5 - 12** *Where is the Cultural mitigation mentioned?*
- Spelling errors Ngāti Kahungunu ki Tāmaki nui-a-Rua and Ngāti Raukawa
- **Page 8 29(h)** *Recommendation of wording that could be altered to include: **And Traditional tikanga offsets compensation package to achieve this.***
- **Page 9 – 35,36** *Kahungunu are in agreeance with the One Plan Chapter 6*
- **Page 12 (k)** *Equity is around iwi rohe. Sharing the rights, responsibilities, risks and following traditional tikanga protocols rewards of an offset. Cultural redress through loss and sacrifice by iwi of some taonga species for the betterment of the project.*
- **50 (c)** *Xx ecosystem type??*

- **(e)** In conjunction with a management developed by iwi to minimise iwi values customary values
- **51 (a)** Cultural importance around rongoa plant types
- **51 (c)** Our tuakana this needs to be monitored as this has already happened on the western side through matai forest
  
- **Page 13 – 54** DOC potential value is different to Māori value of Ngahere
- **Page 14 (a)(b)(c)(d)** Also need to be viewed from a Māori perspective
- **Page 14 – 59 (a)(b)(c)(d)** Ecological vs traditional Māori
- **Page 15 – 64** Culturally meaningful and measurable
- **Page 15 – 65** Was this measured from a cultural perspective?
- **Page 16 – 67** Māori values result in a high Māori value ecological condition
- **Page 17 – 74 (d)** Inclusive seeding of old growth podocarps
- **Page 18 – 77** Has a compromise been done from a traditional Māori perspective that has a key focus on all aspects of the environment working in conjunction with each other from a whakapapa/tuakana/teina view. How Māori view is different to a westernised approach/ecological approach
  
- **Page 29 – Conclusion**
- No mention of cultural redress
- Input around this from iwi as we have grown with the ngahere and we do not look at them as ecosystems but as whanau.
- Consultation and guidance from iwi around this
- Where is the mentioned iwi input?
- Use of perpetuity is misleading reference to the crowns over ride around the QEII blocks which were vested in perpetuity
- Māori were not ecologists/ does this also refer to Māori or is it all around western science
- Iwi input needs to be acknowledged and shown throughout dialogue

## Appendix I



### Enabling Works Lizard Management Plan

#### Feedback

Please find below Ngāti Kahungunu ki Tāmaki nui-a-Rua feedback for the Lizard Management document; Page 8 – 35. Felled kanuka must be made available for use by Rangitane o Manawatū

#### **Recommendations:**

*Discussion at the Iwi Leaders Working Group regarding equal distribution of kanuka when felled when clearance work is taking place.*

**Below is a clause from the Resource Management Act 1991 that safe guards Māori Taonga, this needs to have more focus as it has mana in the above legislation and is overshadowed all the time/councils/crown have a responsibility to comply with (6) e**

Section 6 RMA 1991

(6) Matters of National Importance

In achieving the purpose of this Act, all persons, exercising functions and powers under it, in relation to managing the use development and protection of natural and physical resources, shall recognise and provide for the following matters of National Importance.

subclause (e)

The relationship of Māori and their culture and traditions with their ancestral lands, water sites, waahi tapu and other taonga

This references all taonga species in none of the documentation is it seen where this is emphasised and this clause comes from the RMA taonga include tuna, manu, rakau / non of the report references from a Maori perspective.

*It is noted that there is no inclusion of iwi participation throughout the document;*

#### *Recommendations*

- Cultural Monitors should be included in all monitoring/clearance/relocation processes;
- Tikanga protocols (karakia etc.) need to be included before clearance work begins, in ADP protocol and relocation processes also Lizard injury or death;
- Relocation sites should be identified in the document;

**Page 13 - 3.7** Accidental discovery protocol

- ADP Protocol should include iwi/cultural monitors



## Appendix J



### Ecological Management Plan Document feedback

- Loss of Māori Rongoa plants is not highlighted  
Overlapping of
- Lizard – vegetation clearance to occur between 1 October and 30 April
- Bats – Vegetation clearance to occur between 1 November and 30 April
- Birds – Peak breeding season to occur outside of (September to December 31<sup>st</sup>)

Clearly there are overlapping timeframes for vegetation clearance and peak breeding season of birds. What is the mitigation approach for these timeframes? How does the vegetation clearance dates for Lizard and Bats impact on the Peak breeding season?

- Page 32 3.5 Cultural Use of significant trees  
What Mill will felled trees for timber be transported to?
- Page 36 4.3.6 Cultural Planting programme to be included
- Page 39 5.3.1.1 Discovery protocol and management approach
- Training programme to be developed to include training of cultural monitors and other iwi members will to participate
- Page 40 & 41 Training programme to be inclusive of cultural monitors and iwi members for training in 5.3.2.1, 5.3.3, 5.3.3.1, 5.3.4
- Page 6.2 Responsibilities and competencies
- Notification of 4 weeks minimum to be adhered to
- Inviting iwi to participate in and support an translocation deemed necessary  
Page 45 6.3.3 Effects management for lizards
- Long term pest control of? Cultural programme to be included training developed  
Page 49 6.6 Vegetation clearance protocols
- Cultural monitors to be included in inputting into the protocols  
Page 55 7.5.1 Focussed Bat surveys
- Cultural monitors should be included in these surveys  
Page 61
- 8. Avifauna Management Plan  
Page 62 – contact cultural monitor
- 8.1.2 Responsibilities and competencies  
All personnel including the cultural monitors
- 8.2.2 Avifauna ecological effects
- Potential effects – what are the mitigation approaches to these?
- 8.4.1 Pre-clearance compliance monitoring and reporting
- 8.4.2 Incident monitoring  
Will iwi be included in this reporting process?
- Page 72  
Reporting to the Cultural monitoring advisor
- Page 76 Snail surveys  
No inclusion of cultural monitoring in this process

## Appendix K

Ngāti Kahungunu ki Tāmaki nui-a-Rua Cultural Impact Assessment – NZTA Response table

| Issue   | Mitigation request  | Project Mitigation / Response   | Condition (where applicable)   |
|---|---|---|--|
| <b>Para 11.32</b>   | Request greater presence in monitoring and recording of birds during and following completion of highway.   | <p>The Ecological Management Plan includes protocols and includes for the involvement of cultural health monitors during monitoring and recording activities.</p> <p>The Transport Agency and the Alliance is committed to the ongoing involvement of iwi partners in the implementation, delivery and opening of the Project.</p>  | Conditions proposed require ongoing involvement by iwi in monitoring and recording activities.   |
| <b>Para 12.18 Concern about effect of project on streams, and of changes in water environment including stormwater runoff</b> | <p>Want to be involved in and resourced for involvement in all stream diversions or stream work and discharges to streams with the Tararua District including:</p> <ul style="list-style-type: none"> <li>- Design</li> <li>- Minimise effects on hydrology</li> <li>- Fish capture and release</li> <li>- Minimise effects on aquatic Taonga</li> <li>- Riparian enhancement programmes</li> <li>- Ensuring fish passage is provided</li> <li>- Cultural monitoring</li> <li>- Ensuring mauri of streams not diminished</li> </ul> | <p>The design of stream diversion and of stream offsets is to be undertaken by the Alliance in partnership with iwi partners.</p> <p>Cultural health monitors are proposed to be on site prior to and during stream works, including works that propose discharges to streams.</p> <p>The Transport Agency and the Alliance are committed to the ongoing involvement of iwi partners in the implementation, delivery and opening of the Project.</p>  | <p>Conditions are proposed requiring involvement in stream diversion and offsetting design.</p> <p>Conditions are proposed requiring cultural health monitors to be on site during construction phase.</p> |
|   | Involvement in planting programmes pre and post construction  | <p>The Ecological Management Plan requires iwi involvement in planting programmes that are required to be undertaken. This entails involvement in the design process, involvement in the planting and in the subsequent monitoring and maintenance period.</p> <p>Iwi have been involved in the development of the Ecological Management Plan through invitation to comment on drafts, and involvement at an ecological management plan workshop.</p> | Conditions proposed require ongoing involvement in ecological activities, as requested.  |

| Issue  | Mitigation request  | Project Mitigation / Response  | Condition (where applicable)   |
|--|---|--|--|
|  | Right to select specific trees for future cultural uses where within designation. Also would like access to small shrubs and saplings | The Ecological Management Plan includes protocols that allow for vegetation that is needed to be cleared to be made available for cultural uses. The Iwi Working Group are to develop a protocol to determine distribution of materials that become available for cultural uses.   | Conditions of consent require vegetation that is cleared to be made available for cultural uses, and in the absence of consensus will specify that material be made available to partners on a shared basis. |
| <b>Cultural monitoring required to cover all work, across multiple sites operating</b> | Increase the number of Ngati Kahungunu monitors to 4 so as to be ready for recommencement of enabling works in 2020                   | Monitors are proposed to be involved across the site during the construction process. Their presence and support of the project is welcomed.<br><br>The training up of and making available 4 monitors is welcomed to help ensure that cultural monitoring is available at all times.  | Conditions proposed require appropriate cultural monitoring to be undertaken (with specifics to be agreed as part of the Tangata Whenua Values Management Plan).   |
|  | Prioritise the drafting of the Outline Plan and TWVMP (facilitate drafting)   | The drafting of the Outline Plan is programmed to occur later this year and the assistance of kaimahi will be requested during this process.<br><br>The Iwi Working Group (made up of representatives of each iwi) is tasked with developing a programme for the development of and the delivery of the Tangata Whenua Values Management Plan.   | No specific /new conditions required.  |
|  | Prioritise the archaeological authority application   | The drafting of the Archaeological Authority is currently underway with input from Iwi Partners and it is planned to be lodged in the next few months (once relevant research tasks have been completed).<br><br>Notably the Iwi Working Group (made up of representatives of each iwi) is tasked with developing protocols that will apply should cultural or archaeological items be uncovered as part of project works. | No specific /new conditions required.  |
|  | Enable cultural monitoring and assessment of aquatic environments by Ngati Kahungunu  | Monitors are proposed to be involved across the site during the construction process, including required monitoring and assessment. Their presence and support of the project is welcomed.   | Conditions are proposed requiring cultural health monitors to be on site during the construction phase.  |

| Issue | Mitigation request  | Project Mitigation / Response   | Condition (where applicable)   |
|-------|---|---|--|
|       | Enable tikanga o Kahungunu processes, procedures and concepts for both terrestrial and aquatic data collection.   | <p>The Ecological Management Plan protocols for working in streams and in respect of activities that effect water. Iwi have been involved in the development of appropriate protocols through invitation to comment on drafts, and involvement at an ecological management plan workshop.</p> <p>The Transport Agency and the Alliance are committed to the ongoing involvement of iwi partners in the implementation, delivery and opening of the Project.</p> | Conditions are proposed requiring cultural health monitors to be on site during the construction phase. This includes cultural health monitoring of the awa. |
|       | Ensure more timely provision of information from NZTA and provide iwi with an appropriate level of resourcing and sufficient time for internal decision making. | The Transport Agency and the Alliance are committed to the ongoing involvement of iwi partners in the implementation, delivery and opening of the Project.  | No specific /new conditions required.  |
|       | Incorporate more Maori concepts into project design elements  | Provide opportunities for Maori concepts to be incorporated into the Project design. Opportunities to be identified in the CEDF. The Iwi Working Group to advise on agreed on narratives and cultural stories to be told through any carving.   | No specific /new conditions required. Detailed design is an Outline Plan / territorial matter and is provided for by the proposed designation conditions.    |
|       | Ensure One Plan provisions / values for streams are provided for.   | The Transport Agency fully intends to meet all policy and legislative requirements.   | No specific /new conditions required.  |

