

RUATANIWHA WATER STORAGE SCHEME: ARCHAEOLOGICAL ASSESSMENT

Report prepared for
Hawke's Bay Regional Investment Company Limited

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With a Historical Contribution by Pat Parsons

FINAL
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EXECUTIVE SUMMARY

Potential Environmental Effects

The Ruataniwha Water Storage Scheme (RWSS) proposed by Hawke's Bay Regional Investment Company Limited (HBRIC Ltd) has some potential to destroy, damage or modify archaeological sites. This potentially applies to:

- Previously unrecorded but visible archaeological sites.
 - As yet unknown archaeological sites that might be exposed by earthworks.
-

Assessments Undertaken

Clough & Associates have carried out an archaeological survey and assessment of the areas affected by the RWSS (the reservoir, dam, headrace corridor and reticulation network).

The assessment involved:

- A search of the NZ Archaeological Association's site record database (ArchSite) and the Central Hawke's Bay District Plan schedules for information on any recorded or scheduled archaeological or other historic heritage sites.
- A search of early Survey Office (SO) Plans and Deposited Plans (DP) held by Land Information New Zealand (LINZ) for information on former land use.
- A brief review of literature and archaeological reports relevant to the area.
- Meetings with Dr Benita Wakefield and staff of Te Taiwhenua O Tamatea, and Pat Parsons regarding the cultural and historic heritage aspects of the RWSS. Historical background information provided by Pat Parsons has been included in this report.
- An initial visual inspection of the dam area on 7 September 2011.
- A more detailed archaeological survey covering the larger footprint of the dam and reservoir in January 2012. Where possible, this involved close examination of the ground surface for evidence of former occupation or use.
- A desktop assessment covering the route of the proposed headrace and associated irrigation infrastructure.

Clough & Associates did not include an assessment of effects on Maori cultural values. Such assessments should only be made by the tangata whenua, and Maori cultural concerns may encompass a wider range of values than those associated with archaeological sites. These assessments have been undertaken separately.

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EXECUTIVE SUMMARY, CONTINUED

Results of Assessments

No archaeological sites had been recorded in the immediate vicinity of the proposed dam and reservoir prior to the assessment, although sites including two Maori pa are recorded approximately 7-10km away. The density of archaeological sites previously recorded in the wider area around the proposed dam site is low.

No Maori or other pre-1900 archaeological sites were identified during the field survey. The area of the reservoir and dam does not appear to have been a favoured location for pre-European settlement for topographic reasons, and the tangata whenua have not identified any archaeological sites of significance to them in the immediate vicinity. However, the possibility that pre-1900 subsurface archaeological remains may be encountered during earthworks cannot be completely excluded.

One archaeological site of early 20th century date was identified within the RWSS area – the site of Gardner and Yeoman’s Sawmill, located on the southern bank of the Makaroro River near Dutch Creek. Various remains of the mill operation were noted, dating from the period 1920s-1950s.

The mill site is of local historic heritage significance based on its archaeological values, its historical values and its educational potential. However, its heritage values are considered to be moderate rather than high in view of its relatively late date and limited integrity. It is not scheduled for protection on the Central Hawke’s Bay District Plan, or registered as a historic place by the NZ Historic Places Trust.

The site of the mill would be permanently flooded by the RWSS.

No recorded archaeological sites in the vicinity of the proposed water distribution network will be affected.

Desktop assessment did however identify a number of archaeological sites near the water distribution channel in Zone M, east of Waipawa.

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EXECUTIVE SUMMARY, CONTINUED

Suggested Approach for Effects Identified

As it would not be possible to protect the Gardner and Yeoman mill site in situ, the following measures are proposed by way of mitigation:

- Archaeological investigation and further recording of the site should be carried out prior to flooding.
- A report on the history of the mill (based on oral and archival sources) and the results of the archaeological investigation should be prepared and deposited in the local museum and library and the NZHPT library.
- An interpretation plan should be prepared and interpretive signage detailing the location and history of the mill should be installed in a suitable location (or locations) near the dam and reservoir that is accessible to the public. This could be associated with the existing Yeoman's Track.
- The boiler and any other significant industrial remains should be removed from the site prior to flooding and deposited in a local museum or installed on higher ground nearby in a location accessible to the public as part of the interpretation of the site.

Although the potential for archaeological remains to be exposed during construction is low, it is also recommended that comprehensive Accidental Discovery Protocols should be developed in consultation with the NZHPT and tangata whenua. These would ensure that if koiwi tangata (human remains), taonga or sub-surface archaeological evidence is uncovered during construction, work would cease in the immediate vicinity of the remains so that appropriate action could be taken. A field survey of the water distribution network (including the Zone M channel) should also be carried out by an archaeologist prior to earthworks as a precaution in case any unrecorded sites are present.

If modification of an archaeological site does become necessary, the effects could be appropriately mitigated under the provisions of the Historic Places Act 1993. An Authority to modify an archaeological site would be required before any work could be carried out that would affect an archaeological site. It would be possible to apply for a general Authority from the NZHPT prior to earthworks as a precaution to minimise delays should archaeological remains be accidentally discovered.

A Workshop on a potential integrated Mitigation and Offset programme associated with the physical effects of the RWSS on the environment was held on 6 March 2012. This was attended by DOC and Iwi representatives as well as the authors of the recreation, landscape, archaeology and Terrestrial ecology reports.¹

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¹ Isthmus (May 2013), Opus (May 2013a), Kessels & Associates (May 2013)

EXECUTIVE SUMMARY, CONTINUED

**Suggested
Approach for
Effects
Identified,
*continued***

The recommendations contained in this report were discussed at the workshop and HBRIC Ltd have prepared a separate report entitled 'Ruataniwha Water Storage Scheme – Integration and Mitigation and Offset Approach' (May 2013f) which should be read in conjunction with this report.

Proposed conditions of consent give effect to these recommendations by requiring the progressive implementation of the recommendations in this Report upon commencement of construction of the Scheme, and the adherence to a specific Cultural/Accidental Discovery Protocol.

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INTRODUCTION

Project Background

Hawke's Bay Regional Investment Company Limited Council (HBRIC Ltd) is planning a large water storage scheme (Ruatanuiha Water Storage Scheme, Scheme or RWSS) to provide irrigation water for the Ruatanuiha Plains in Central Hawke's Bay (Figure 1). The Scheme will require a dam which will flood an area along the Makaroro River, and additional infrastructure associated with the distribution of the water.

Clough & Associates was commissioned to assess whether the dam, reservoir, and water distribution network (Figure 1-Figure 4) are likely to impact on archaeological values. This report has been prepared as part of the required assessment of effects accompanying a resource consent application under the Resource Management Act 1991 (RMA) and to identify any requirements under the Historic Places Act 1993 (HPA). Recommendations are made in accordance with statutory requirements.

Methodology

The NZ Archaeological Association's (NZAA) site record database (ArchSite) and the district plan schedule were searched to determine whether any archaeological or other cultural heritage sites had previously been recorded in or in the immediate vicinity of the proposed Scheme area (Figure 9). Early Survey Office (SO) Plans and Deposited Plans (DP) showing the area of the dam and reservoir were searched for information on former land use. Literature and archaeological reports relevant to the area were consulted.

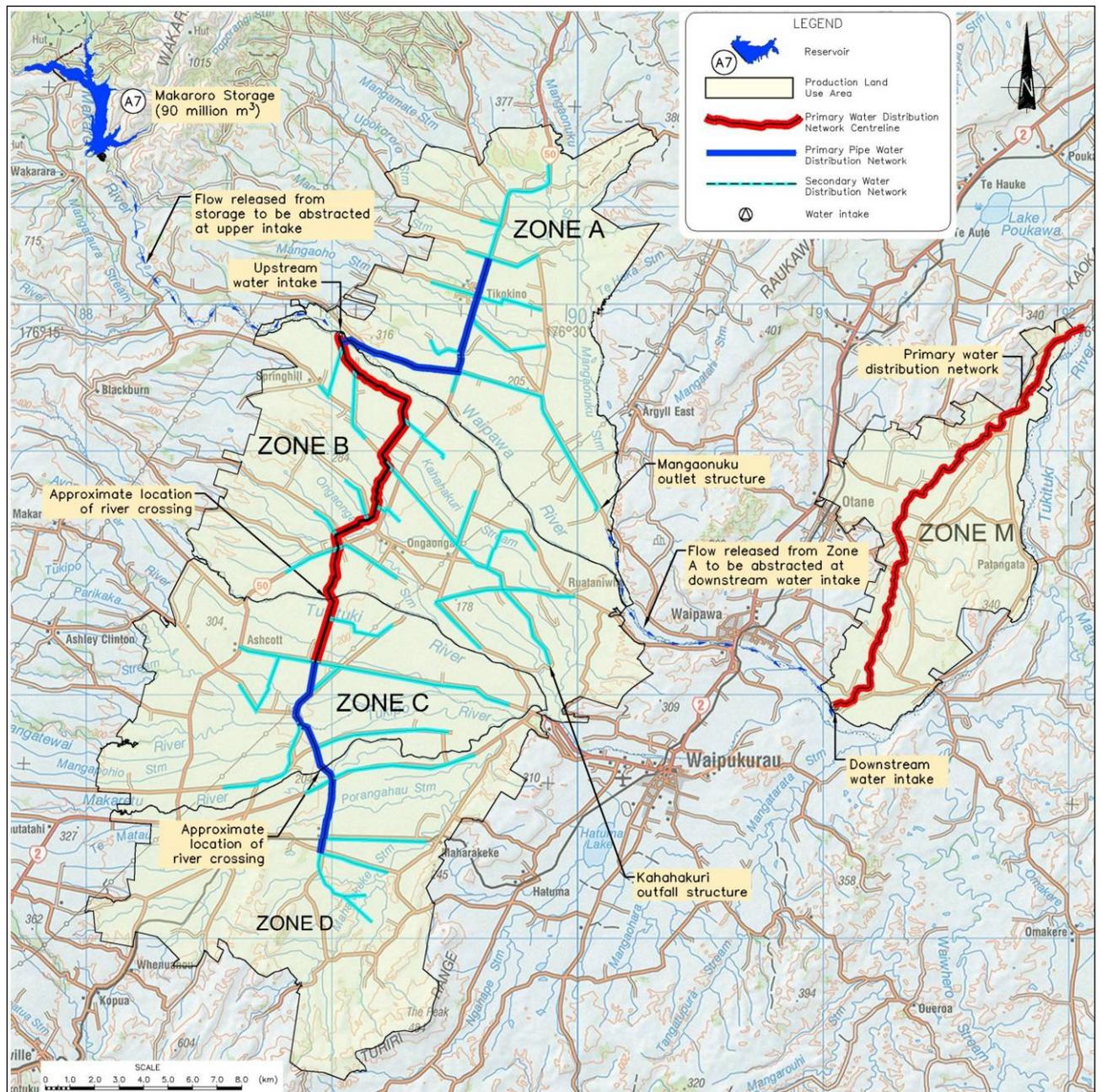
An initial visual inspection of the dam area was conducted by Simon Bickler with Stephen Daysh and Graeme Hansen on 7 September 2011. Subsequently, in January 2012, an archaeological survey was carried out by Bickler and Rod Clough, covering the larger footprint of the Scheme. Where possible, the ground surface across Scheme footprint was examined for evidence of occupation (in the form of shell midden, depressions, mounds, or other unusual formations within the landscape, or indications of 19th century European remains). Exposed and disturbed soils were examined where encountered for evidence of earlier modification, and an understanding of the local stratigraphy. Photographs were taken to record the topography and features of interest.

Meetings with Dr Benita Wakefield and staff of Te Taiwhenua O Tamatea, and Pat Parsons regarding the cultural and historic heritage aspects of the Scheme were held. Historical background information provided by Pat Parsons has been included in this report.

A further desktop assessment was carried out to assess the likelihood of archaeological remains being uncovered during earthworks for the water distribution network to the east of the dam (Figure 1). This was updated in 2013 to include the Zone M concept plan.

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INTRODUCTION, CONTINUED



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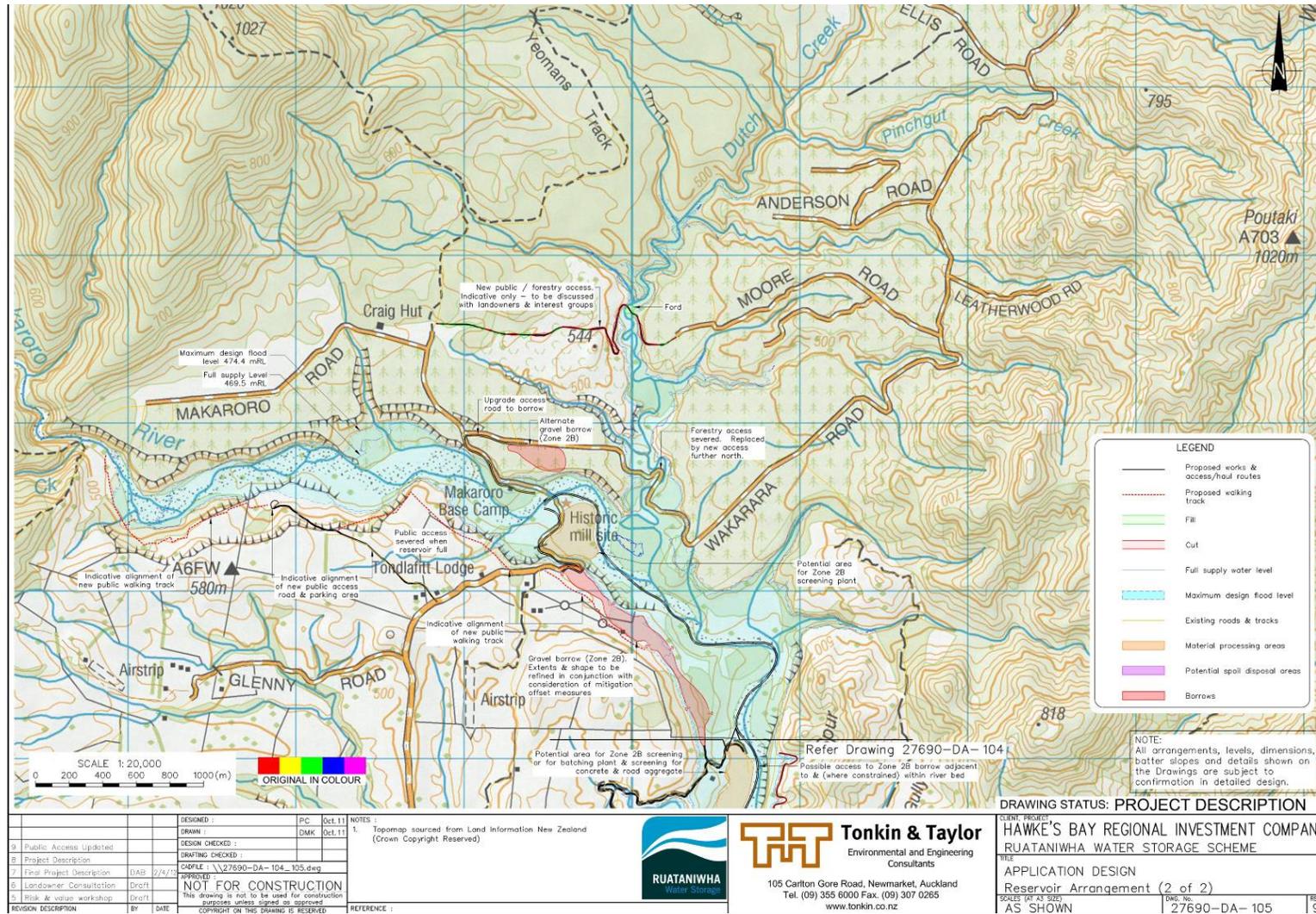


Figure 2. Plan of Dam footprint and infrastructure (northern end) (Tonkin and Taylor [2013] Figure 27690-DA-105 Rev 9)

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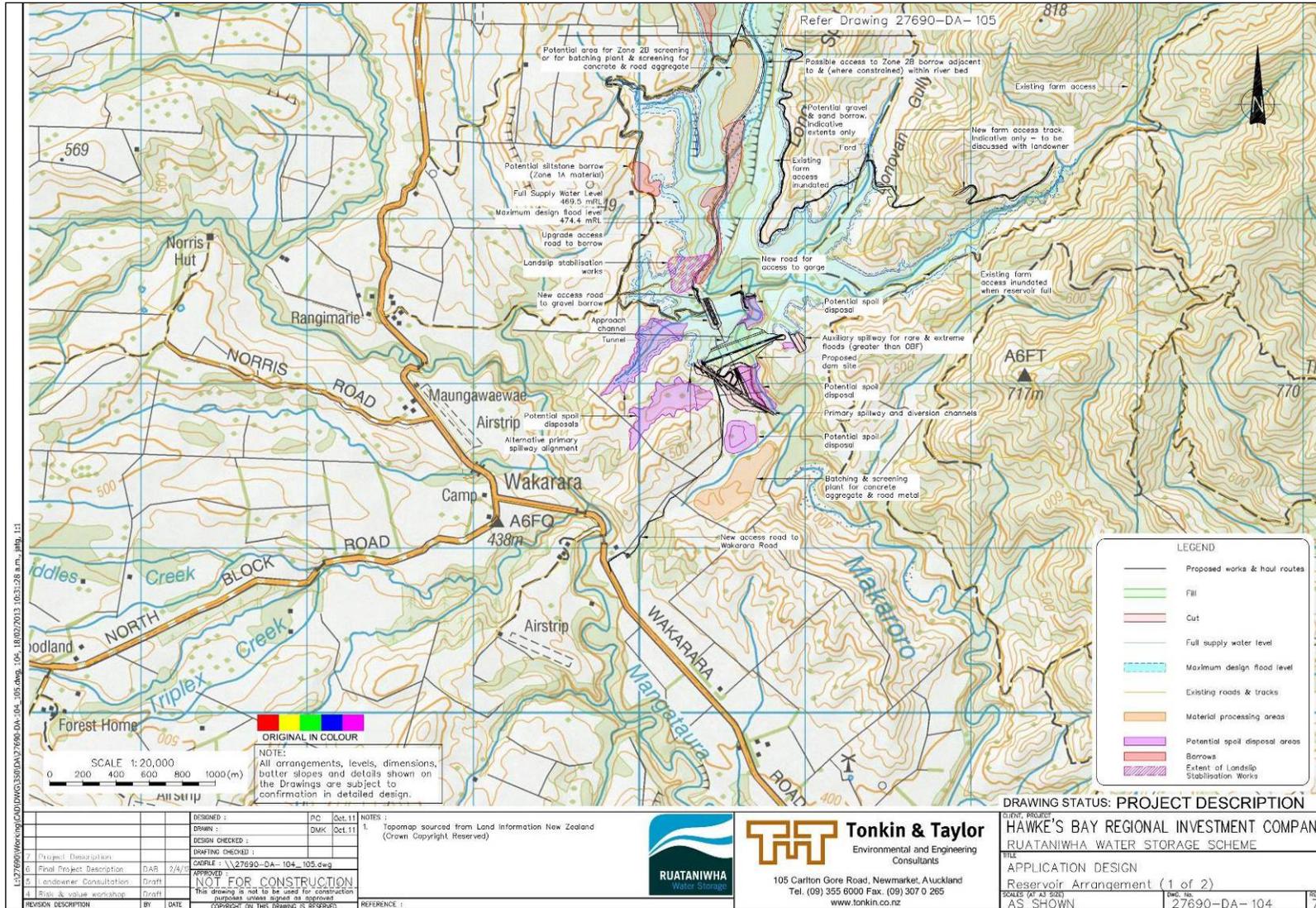


Figure 3. Plan of Dam footprint and infrastructure (southern end) (May Tonkin and Taylor [2013] Figure 27690-DA-104 Rev 7)

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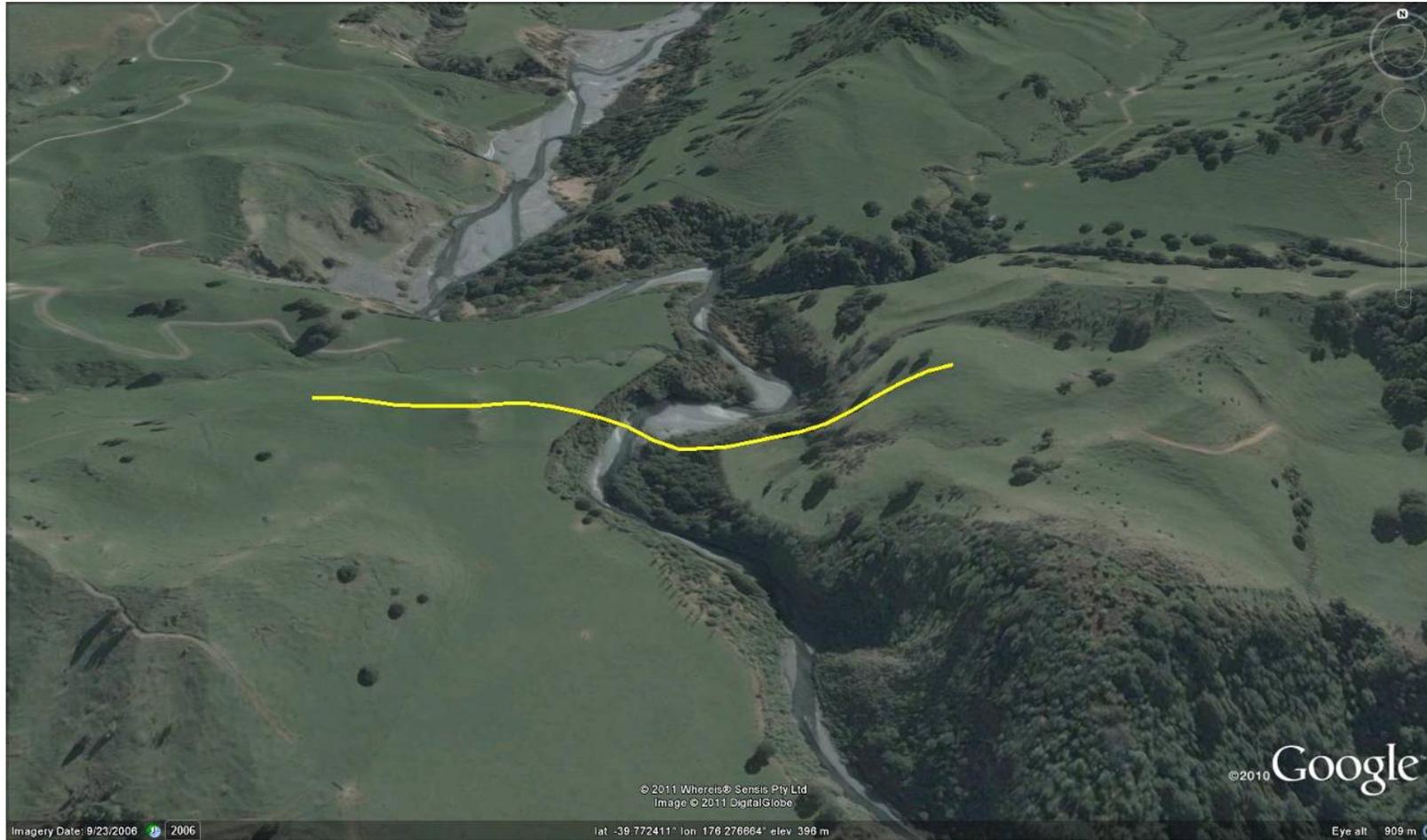


Figure 4. Oblique Google Map showing location of proposed dam

HISTORICAL BACKGROUND

Introduction² Historically the Scheme area lies between the Wakarara (originally Ngawhakarara) and Ruahine ranges at the south-west edge of the Wakararas. This locality forms part of the Ruataniwha North and Ruahine block which was purchased by the Crown on 27 June 1859.³ The territory was remote and bush-clad and evidence suggests it was only occupied by early Maori on a seasonal basis. Even today it is known mainly to fishermen, trampers and hunters. In the days prior to the occupation of Ngati Kahungunu, it belonged to Ngati Ruapirau, a sparse, nomadic people who lived mainly in the vicinity of the Omahu lakes. By ancestry they were a hapu of Ngati Whatumamoā who lived around the shores of the Ahuriri inner harbour.

Early Ancestors The earliest reference to the district concerns the naming of the Ruataniwha plains. An ancestor by the name of Houmeataumata set out in pursuit of Ngati Hotu to avenge a killing.

‘Houmeataumata conquered the Ngati Hotu. Tunui was killed, murdered by Hotu. Tunui was an ancestor of all the people in this district. A war[party] under Houmea-taumata started from Waipuhi (near Clive) and they took a taniwha with them.’⁴

It appears they encountered another taniwha on the plains and their taniwha engaged in a fierce fight, the outcome being that either one or both perished. This was the origin of the name of the Ruataniwha plains. Houmea continued his pursuit of Ngati Hotu to the Wairarapa where he eventually overtook and defeated them.

Ngati Whatumamoā and Ngati Awa At the time of the Ngati Kahungunu occupation of the mid-1500s several tribal groupings are known to have resided in the Heretaunga district. Tribal historians identify Ngati Whatumamoā and Ngati Awa as the principal influences on the lands extending west and south-west from Omahu. Maraekakaho, Aorangi, Kereru and the Wakarara ranges, all to the south of the Ngaruroro river, were among these. A marriage connection existed between Houmeataumata and Whatumamoā (Figure 5). Two quotes illustrate the influence of the above tribes.

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² The Historical Background has been contributed by Pat Parsons

³ Turton’s Deeds Vol 2, pages 531-532.

⁴ Napier Min Bk 9, page 131. Mangaohane hearing. Ev. Raniera Te Ahiko.

HISTORICAL BACKGROUND, CONTINUED

**Ngati
Whatumamoa
and Ngati
Awa,
continued**

Raniera Te Ahiko states:

‘The whole country from here [Heretaunga] to Patea belonged to Whatumamoa. Taraia came afterwards. Te Whatumamoa are descended from Tangaroa o Te Kore. Te Whatumamoa and Te Orotu did not come in a canoe.’⁵

Noa Huke says:

‘At the coming of Taraia the lands all about this neighbourhood belonged to Turauwha and Ngati Awa and Koaupari. There were many other hapus here when Taraia first came but I forget them.’⁶

Several generations before the arrival of Taraia I and Ngati Kahungunu, his great great grandfather Tamateapokaiwhenua made a journey of exploration up the Ngaruroro river. He was accompanied by his young son Kahungunu. Many place-names were bestowed on the land and it is believed that Ngati Whatumamoa acted as guides. The place-names Owhiti, Omapere, Matapiro, Aorangi, Tiwhakairo and Otakuao all date to this great explorer chief.

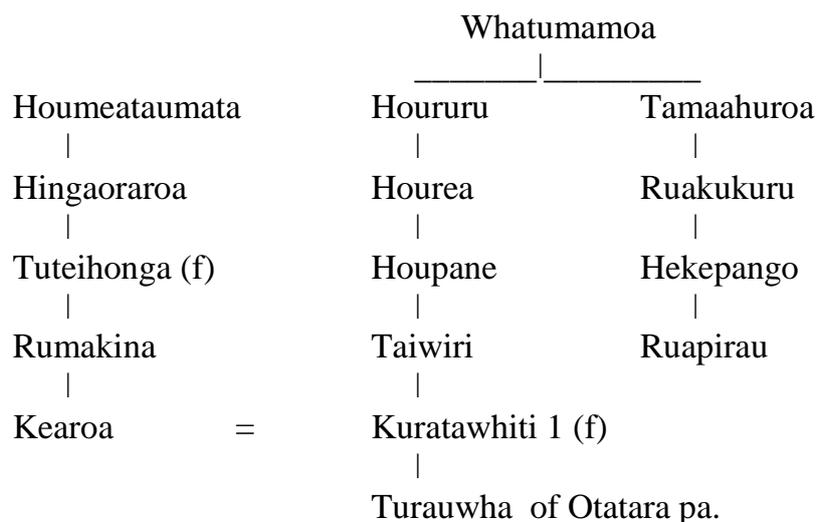


Figure 5. Genealogy showing connection between Whatumamoa and Houmeataumata

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⁵ Napier Min Bk 16, page 240. Ev. Raniera Te Ahiko.

⁶ Napier Min Bk 17, page 225. Ev. Noa Huke.

HISTORICAL BACKGROUND, CONTINUED

Ngati Kahungunu Occupation – circa 1550

Taraia I led the Ngati Kahungunu migration. Turauwha mentioned above, principal chief of Otatara pa, belonged to Ngati Awa on his father's side and to Ngati Whatumamoa on his mother's. Taraia assumed Turauwha's authority upon the arrival of Ngati Kahungunu. The impact of this occupation took longer to reach the fringes of the territory.

By 1600 Taraia's grandchildren were growing up at Oueroa pa between Waiohiki and Omahu. Taraia had settled Te Hika a Papauma, the descendants of his father's first wife, on the lands to the south of the Ngaruroro river. Strictly speaking the Wakarara ranges lay in their territory but Taraia II, grandson of Taraia I, still held influence across the river from his headquarters at Okawa.

A small sub-tribe of Ngati Whatumamoa continued to live on the lands inherited by Taraia II. They were known as Ngati Ruapirau, and while they were subject to his authority they disregarded it as much as they dared. They took eels from the swamps at Oingo and Okawa. During the bird-snaring season they camped on the edge of the Kereru bush, a renowned food resource.

A breach of their terms of occupation led to the downfall of Ngati Ruapirau. They had been instructed to provide relish for the food of Taraia II's wife during one of his absences. This they disregarded with predictable results. Taraia II attacked them at Matapiro, killing Tuanewa, their principal chief. 'They became wanderers on the face of the earth – wandering over hills, through forests, on the shingle beds of the rivers.'

In the days of Taraia II the resources south of the Ngaruroro river appear to have been shared with Ngai Takaha, a hapu of Te Hika a Papauma. In particular the ancestor Te Apunga is identified as having rights at Aorangi and Kereru. His principal dwelling place was at Raukawa. He was a contemporary of Taraia II, but there is no evidence of enmity between the two men.

On the south side of the Ngaruroro river Taraia II's interests included Maraekakaho, Aorangi and Otakuao, the latter two formerly possessions of Ngati Ruapirau. The probable reason for the harmony between Ngai Takaha and Taraia II was the fact that they inter-married and lived together. In later generations they fought together under the collective identity of Ngai Te Upokoiri. The relationship is shown in Figure 6.

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HISTORICAL BACKGROUND, CONTINUED

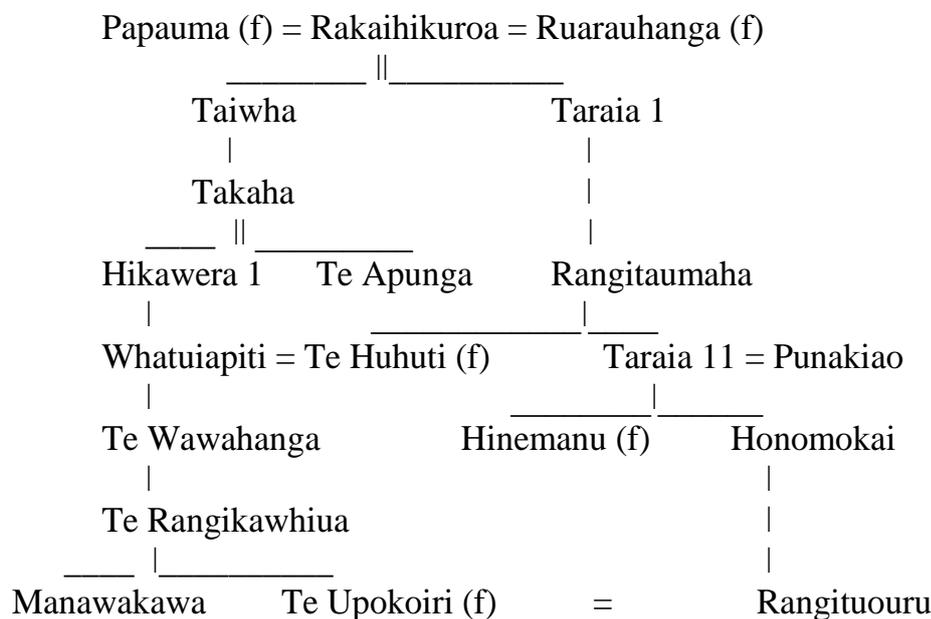


Figure 6. Genealogy of Ngai Takaha and Taraia II

Children of Taraia II

Because of the extent of their landed inheritance the children of Taraia II became prominent. In particular Hinemanu, Mahuika and Honomokai extended their influence over the land. Hinemanu married back into Inland Patea, her mother's territory, and the hapu name Ngati Hinemanu is still in use today.

Mahuika married Rapuiao of Ngati Ruapirau, thus uniting the two tribes. He had strong interests along the north banks of the Ngaruroro extending from Owahi to Omahaki and into Inland Patea.

Honomokai married Te Aopupururangi of his mother's people. He is the ancestor of Ngati Honomokai and Ngai Te Upokoiri. He was influential on both sides of the Ruahine range. In time, the site of the proposed irrigation dam at Makaroro fell under his influence.

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HISTORICAL BACKGROUND, CONTINUED

Ngai Te Upokoiri

The history of a tribe is told mainly through the lives of its chiefs. Among the descendants of Honomokai it was Ngai Te Upokoiri, the fighting branch, who were mostly in the news, not always for the right reasons. They had a reputation for marrying for strategic advance or territorial gain, although this could be said of most tribes. They were often at loggerheads with their relatives down on the plains, and their mountain territories in the Wakararas and the foothills of the Ruahines became a retreat where few cared to venture. Figure 7 traces the descent of the principal chieftainship.

The hapu name was taken from Te Upokoiri, the wife of Rangituouru. She was born at Raukawa and though her landed interests are not well-defined, they extended west towards the Wakarara and Ruahine ranges. Of their seven children Te Mumuhu was the eldest male. His life is not well-documented. He married Hinenui of Tuwharetoa and Ngati Raukawa. which gave the tribe access to a considerable fighting force, a force they were to call on regularly in future generations.

Te Atakore and Whareau, the two elder sisters of Te Mumuhu, married men from Rakautatahi near Takapau. This provided Ngati Honomokai and Ngai Te Upokoiri with a corridor extending along the foothills of the Ruahines from their pa sites at Ngaruroro to Rakautatahi. By using this corridor they avoided the Ruataniwha plains and followed their preferred routes through the forests to the west.

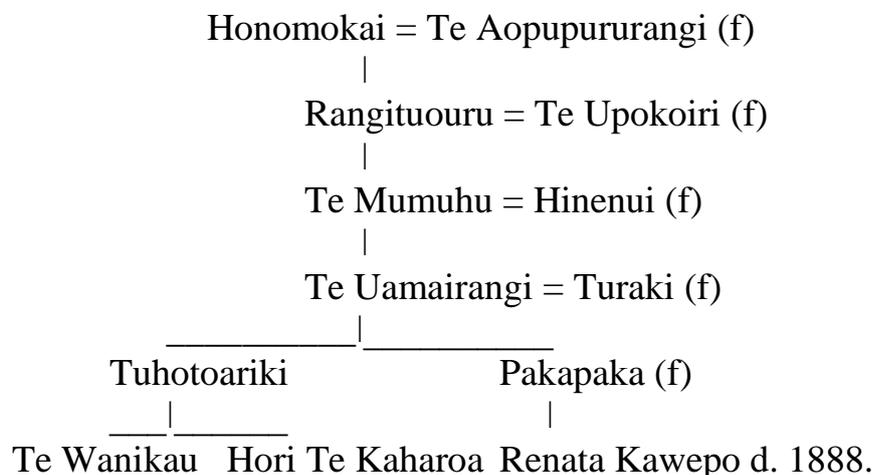


Figure 7. Genealogy tracing the descent of the principal chieftainship, Ngai Te Upokoiri

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HISTORICAL BACKGROUND, CONTINUED

Ngai Te Upokoiri , *continued*

Scattered along this corridor was a chain of fortified sites and kainga or open settlements. Several of them can still be identified today. Starting from the Mangleton valley west of Wakarara, they extended south across the headwaters of the Makaroro and Waipawa rivers, down the Waipawa to Springhill, along Springhill road and across to Petit's valley road. A fortified site on Tukipo stream links the route to Rakautatahi.

The Era of Te Umairangi

The eldest son of Te Mumuhu was Te Umairangi who lived to be an old man. His death can be dated quite accurately because Renata Kawepo was born shortly before he died at Taumata o he and the historian Raniera Te Ahiko was present. It was about the year 1808. Te Umairangi lived at a time when the population of Heretaunga was increasing and sub-tribes were assuming stronger identities. Smaller hapu were vulnerable to the ambitions of stronger neighbours and often chose to place themselves under the protection of a prominent chief.

In this climate the descendants of Honomokai and Mahuika elevated Te Umairangi to the status of tribal chief. In times of war they fought as Ngai Te Upokoiri, travelled with them and shared their sorrows.⁷ Although Te Umairangi had access to the eeling grounds of his relatives at Kawera, he chose through preference to live in the upper reaches of the Ngaruroro river. His principal pa was Whanawhana at the junction of the Ohara and Ngaruroro rivers. A second retreat was Mangarakau pa on a stream by the same name, about half a day's walk from Whanawhana.

Te Ua married Turaki, a woman who was not a chieftainess. There has been speculation over his choice but her tribal connections included Ngai Takaha and Ngati Pouwharekura, which gave her husband and children increased influence at the Kereru bush and on the Ruataniwha plains (Figure 8).

Te Umairangi utilised these links onto the northern portion of the Ruataniwha plains, constructing the Kihiao and Hakiuru pas on Matheson's road and Mangataiorea on Guavas road. Other sites appeared up the Waipawa and Makaroro rivers. All of these sites are located on the west side of State Highway 50 between Maraekakaho and Wakarara road.

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⁷ Napier Min Bk 36, page 289-290

HISTORICAL BACKGROUND, CONTINUED

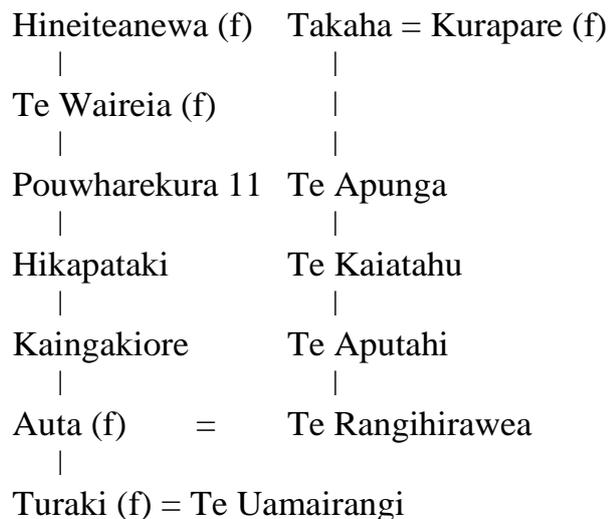


Figure 8. Genealogy of Turaki

The Era of Te Umairangi , *continued*

In later days he moved down to the milder climate of Taumata o he pa on the cliffs a short distance from the mouth of the Mangatahi stream. Among the sub-tribes who lived there under his protection were Ngati Hineiao, Ngai Takaha, Ngati Kopua, Ngati Mate, Ngati Uranga and a section of Ngati Mahu. Contemporary leading chiefs of Heretaunga with Te Umairangi were Hawea and Rangikamangungu.

To the south of the Ngaruroro river a buffer zone was provided by Ngai Te Upokoiri cousins. The descendants of Hikatorehe occupied the lands inherited from Te Upokoiri between Ngatarawa and Raukawa. Their pa sites were Ongaru, Omana, Puketaniwha and Whakapirau. Umuwhakapono's descent lived on the upper Waipawa river and on the eastern slopes of Wakarara at Te Rai o Te Maro, Matatoto and Ponapona. Te Umairangi kept three pa sites himself to the north of Tikokino: Hakiuru, Kihiao and Mangataiorea.⁸

Te Umairangi led an eventful life during the period 1750-1800. He was remarkable in that he lived to old age, a rarity in the world of fighting chiefs. His success owed much to the fighting forces he was able to muster from within his mother's people. Another factor was the mobility of his men. They were masters of the lightning raid and rapid retreat. There were individual warriors of renown as well, such as Whiuwhiu Hoia.

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⁸ *West to the Annie*, by the RD 9 Historical Committee, page 43.

HISTORICAL BACKGROUND, CONTINUED

The Era of Te Uamairangi, *continued*

A series of events occurred in Te Ua's time which demonstrate the range of situations faced by leading chiefs. While on a visit to his mother's relatives at Whakatane to collect a prized greenstone he heard that food was being stolen from his hunting grounds at Tahunui. Left unchecked, such liberties would only escalate, so he sent Te Paku o te Rangi of Ngati Mahu to drive them off.

Another event with wide repercussions was the killing of his younger brother Te Amiowhenua. Te Weka of Ngati Mihiroa was implicated in the battle which took place near Korongata. Te Uamairangi narrowly escaped with his life and was taken into Opunua pa near Roy's Hill in a highly distressed state. He was close to his younger brother and wept over his death and the others slain. He announced his decision to abandon Heretaunga.

This caused considerable alarm to Ngai Te Upokoiri and the hapu under their protection. A young Ngati Hinemanu warrior named Mataora made his way to Tanenuiarangi pa near Clive to persuade the chiefs Hawea and Te Tahatu to intervene. They set out for Parewaiehu, Te Weka's pa on the Tukituki river and attacked it, killing many. Although Te Weka escaped, Hawea felt that sufficient revenge had been gained to make Te Ua change his mind. However he was not to be placated and when Hawea visited him at Opunua he placed his lands and people under Hawea's authority and made preparations to leave for Whakatane.⁹

Tauwhitu, a younger brother of Te Ua tried to persuade his brother's children to stay but they followed their father into exile. In his brother's absence he assumed the chieftainship himself and established himself at Taumata o he pa. He had no son so he adopted Rewharewha of Ngati Rangikoianake to be his heir. Hawea raised no objection and returned to Te Awanga. Tauwhitu seems to have gained general acceptance by the people as leader of Ngai Te Upokoiri.

A period of time lapsed during which two of Te Ua's daughters married into Ngati Awa at Whakatane. Eventually his thoughts returned to his homeland and people at Heretaunga. There was no inheritance for his eldest son Tuhotoariki at Whakatane and he still felt his brother's death had not been sufficiently avenged. He prevailed upon some of his Tuwharetoa relatives to assist him in this matter. They attacked Ngati Hori at Mangaroa killing Tutapora, a younger brother of Takotoroa.

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⁹ Napier Min Bk 19, page 105. Omaha hearing. Ev. Meihana Takihi.

HISTORICAL BACKGROUND, CONTINUED

The Era of Te Uamairangi, *continued*

After the return from exile, Te Uamairangi and his son lived at Whanawhana, some distance up the Ngaruroro river from his former pa at Taumata o he. Tauwhitu was not willing to budge and Tuhotoariki had territory to recover.

Tuhotoariki, Son of Te Uamairangi

Tuhotoariki engaged his uncle in several ritual challenges with spears, sometimes one winning, and sometimes the other. One day when Tauwhitu was absent, he and his father seized the opportunity to recover his pa.

Then there were the eeling grounds at Kawera now in the domain of the Ngati Hineiao section of Ngai Te Upokoiri. Te Uamairangi had placed part of this hapu under the protection of Hawea before leaving Heretaunga. Another section had invited Rangikamangungu, principal chief of Ngati Parau, to be chief over them. Neither chief was willing to surrender rights to one of the best eeling grounds in Heretaunga. Tuhotoariki foresaw difficulties in removing them and so resorted to strategy: marrying two women of Ngati Hineiao.

He further pressed his advantage by setting up camp on the Pukehamoamo side of the Kawera swamp. A series of events followed in quick succession which confirmed Ngai Te Upokoiri's reputation for provocation. Tuhotoariki's tohunga had a dream which was interpreted by Ngati Hawea as a curse. Hearing that a war party was on the way, Tuhotoariki sent his followers into the bush and awaited the arrival of the war party with his young son Te Wanikau. It was a bold tactic and it paid off. There was no mana to be gained by killing one man and a boy so the war party returned to Hawea. When he heard what had happened he instructed his warriors, "Leave the place of your younger relative to him and cease trying to take another man's land!"

Relations became strained with Ngati Parau when Tuhotoariki committed adultery with the wife of Te Hauwaho, the principal chief. Ngati Parau killed Rakautawa of Ngati Hineiao for poaching eels at Lake Rotokare. Ngai Te Upokoiri were believed to have been implicated. Soon after, Tuhotoariki's two children of by his Ngati Hineiao wives were bewitched and killed. Such actions hardened Ngai Te Upokoiri and entrenched their warlike nature.

These tit-for-tat encounters escalated tensions. Tuhotoariki and his warlord, Tareahi of Ngai Takaha, escorted Te Uamairangi's workmen to Lake Oingo, disregarding his instructions, crossing the lake at night and raiding the eel weirs of Ngati Hawea and Ngati Parau.

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HISTORICAL BACKGROUND, CONTINUED

Tuhotoariki, Son of Te Uamairangi, *continued*

They were seen however and at first light the following day they were attacked leaving Te Urukahika of Ngai Te Upokoiri and two of his warriors dead. A woman of the raiding party was staked to a post at Hauhau to warn off other raiders. A similar circumstance resulted in the death of Te Kiipatu at Taumata o he.¹⁰

Te Wanikau assumes the Chieftainship – circa 1810

Te Uamairangi passed away at Taumata o he, an old man. His death coincided with that of his son Tuhotoariki, who predeceased him by a short interval. Shortly before these deaths a grandson was born at Taumata o he. He was later to achieve fame as Renata Kawepo. His elder cousin Te Wanikau, son of Tuhtoariki, served as principal chief from 1808 to 1840.

Te Wanikau was sufficiently astute to know that he would not be able to control the Kawera swamps or the Ohiwia stream from Taumata o he. He took possession of the high hill separating the Kawera and Hurimoana swamps, where he built Te Horo pa. It commandeered the upper reaches of the Ohiwia stream. Ngati Hawea took exception to his bold action and came to drive him out. Bloodshed was only prevented by the timely intervention of Te Wanikau's wife Waipu, a grand daughter of Hawea, who used her influence to make peace. Te Wanikau retained possession.

The history of Ngai Te Upokoiri is littered with confrontations and it is difficult to isolate the ones which advance the story. One was the battle of Mangatoetoe. Ngai Te Upokoiri killed Kaiwaru.

'That fight was called Tapuaerau. Ngati Rangikoianake went to avenge his death. They went and caught stragglers outside the pas of Ngai Te Upokoiri and went back. The pas were Kihiao, Hakiuru, Ponapona [and] Te Pa o Tamahika. These were the pas that Rangikoianake went to at Ruahine.'

Upon their return Ngati Rangikoianake formed a large war party and marched to Whakapani a te Koparetao, where they camped. Ngai Te Upokoiri had anticipated their arrival and advanced to Mangatoetoe, east of Gwavas homestead where they camped the night. During the night Rangikoianake drew near and in the morning charged the Ngati Upokoiri:

Continued on next page

¹⁰ Napier Min Bk 19, page 228. Omahu hearing. Ev. Raniera Te Ahiko.

HISTORICAL BACKGROUND, CONTINUED

Te Wanikau assumes the Chieftainship – circa 1810, *continued*

‘Te Whakahemo then called out “Take to your weapons in order that you cannot say that you were taken advantage of.” They fought and Ngati Rangikoianake were defeated by Ngai Te Upokoiri. Rewharewha, Kopiri, Whakahemo, Tamanohorakau, Karahui,- all these were chiefs of Ngati Rangikoianake and slain at that battle. It is called Mangatoeotoe.’

The Conflicts Escalate – circa 1820

A roving war party under the Ngati Maru chief Tangiteruru arrived at Inland Patea from Wanganui and attacked Ngai Te Upokoiri and Ngati Whiti. The chiefs Tuhi o te Rangi and Pokaitara were killed. They then entered Heretaunga and arrived at Roto a Tara near Te Aute. Ngati Whatuiapiti were staying at that pa. They attacked and captured the pa and Te Kawakawa was killed. Te Nahu, the son of Te Whakahemo escaped to the bush at Ruahine with some companions.

Te Nahu came to where Whiuwhiu was. He was the only man of Ngai Te Upokoiri who did not go to Patea. Te Nahu stayed and peace was made there about Mangatoeotoe. Ihukino, sister of Te Wanikau was married to Te Nahu to confirm the peace. When Ngai Te Upokoiri, who were at Patea, heard that peace had been made, they returned to Ruahine and Heretaunga. They lived in harmony with Ngati Whatuiapiti for some time.

Relations deteriorated when Te Nahu died at Lake Poukawa. Te Wanikau arrived and placed a rahui on the lake, making it sacred. This prevented Ngati Rangikoianake from using their own eeling lake. They pulled down the rahui and cursed it, saying it was the bones of Te Wanikau. The response to this curse was predictable. Te Wanikau journeyed to the Taupo district to call on the assistance of Tuwharetoa and a part of Ngai Te Upokoiri.¹¹

Te Aratipi and Roto a Tara I

Ngati Rangikoianake had retreated to the island fortress of Roto a Tara in anticipation of retribution and it was here that Ngati Tuwharetoa, Ngati Peehi and Ngai Te Upokoiri focussed their energies. Laying siege to an island fortress proved a lengthy process, and learning that some of the people of the pa were on a fishing expedition to Waimarama, a hand-picked war party set out for Te Aratipi. Things went dreadfully wrong. The war party was repelled and worse, Manuhiri, the younger brother of Te Heuheu was killed.

Continued on next page

¹¹ *Tuwharetoa*, by J. Grace page 287.

HISTORICAL BACKGROUND, CONTINUED

Te Aratipi and Roto a Tara I, *continued*

When news of the tragedy reached Te Heuheu he was devastated and immediately lifted the siege on Roto a Tara to march on Te Aratipi. He threw the full weight of his war party on the occupants. Among his victims were Ngati Kurukuru, Ngai Tamatera and Ngati Kahungunu. Two celebrated adzes fell into the hands of the attackers. They then set off for Taupo.

The Ngai Te Upokoiri section of the war party went into seclusion at Tarawhitiwhiti near Takapau. Pareihe, the fighting chief of Ngati Whatuiapiti followed them up and attacked them there, but most of them had vanished into the bush.¹²

Pareihe prepared himself for retribution. He knew Te Heuheu would be back and fortified Roto a Tara accordingly. He was not wrong in his assessment. Te Heuheu canvassed widely and gained the support of Ngati Raukawa, Ngati Maru and the Waikato tribes. They descended on Heretaunga and laid siege to Roto a Tara, felling trees from the Te Aute forests to construct a causeway to the pa. This was the celebrated occasion when Pareihe erected a 'puhara' or tower and bombarded the advancing workmen with heavy rocks. One struck Te Arawai, the son of a major Waikato chief on the head and killed him.¹³

The Conflict Escalates

The killings of Manuhiri and Te Arawai ended any chance of confining differences to the sub-tribes of Heretaunga. Powerful tribes from outside the region had scores to settle and the situation was rapidly getting out of control. At Otaparoto on the banks of the Rangitikei river Ngati Raukawa attacked Ngai Te Upokoiri and Ngati Hinemanu killing the chiefs Te Hoeroa and Te Hianga. No sooner had Ngai Te Upokoiri returned to Heretaunga than word reached them that Ngati Parau were using Te Hoeroa's bones for fish hooks. It was a call to arms and Ngai Te Upokoiri attacked them at Waitanoa bush, killing Te Humenga, brother of the principal chief. Chaos reigned and Ngati Parau enlisted the support of the Ngapuhi chief Te Wera Hauraki, who had settled at Mahia.

Continued on next page

¹² Napier Min Bk 19, page 121. Omahu hearing. Ev. Meihana Takihi.

¹³ Tuwharetoa by J. Grace, page 295.

HISTORICAL BACKGROUND, CONTINUED

The Conflict Escalates, continued

The Upokoiri presented a moving target, camping along the edges of the Ruahine range between Whanawhana and Rakautatahi and changing location regularly. Te Wera and Pareihe went looking for them and stumbled on an unexpected foe constructing a pa on the upper Waipawa river. A Tuwharetoa war party had crossed the Ruahines looking for a man named Moeroa and were surprised in their operations. While the battle raged Tuwharetoa sent a scout to the Upokoiri with a call for help and they responded readily. The battle was called Te Whitiotu and Ngati Tuwharetoa lost several prominent chiefs.

The Beginning of Exile

The survivors of Whitiotu fled to the bush and were not pursued. Gathering up their people Ngai Te Upokoiri abandoned Heretaunga and followed Tuwharetoa back to Taupo. Tuwharetoa immediately set about gathering allies for a definitive assault on Heretaunga and the ever-astute Pareihe anticipated it. He and Te Wera made a decision to evacuate Heretaunga for Mahia and they set about rounding up the isolated hapu of Central Hawke's Bay for their own protection.

Approaching Ahuriri, Pareihe failed to persuade Te Hauwaho and his followers to join them or give up a sacred adze for protection. Ngati Parau, Ngati Hinepare, Ngati Hawea and Ngati Matepu chose to remain with Te Hauwaho on the island fortress of Te Pakake. Pareihe warned them that they would be fuel for the fires lit at Te Whitiotu but to no avail. His words were prophetic. Three months later, in 1824, an army 1000 strong comprising Ngati Tuwharetoa, Waikato, Ngati Maniapoto and Ngati Raukawa armed with 400 muskets, lined up to claim utu for their previous losses.

Amidst scenes of utter carnage they exacted a terrible price with children torn from their mothers' breasts and bodies bobbing in the tide for weeks after. Six hundred are estimated to have perished at Te Pakake and when Potatau Te Wherowhero, the principal Waikato chief heard the news he wept, for the people of Heretaunga had been slaughtered without sufficient reason.¹⁴

For the rest of the 1820s Ngai Te Upokoiri and its allies conducted a series of what could be termed nuisance raids on Heretaunga. There were few permanent inhabitants, most being in exile at one place or another. Tareahi was an example of a kaitiaki keeping a watchful eye on the Upokoiri lands from Lake Oingo and maintaining their ahika.

Continued on next page

¹⁴ Napier Min Bk 19, page126. Omahu hearing. Ev. Meihana Takihi.

HISTORICAL BACKGROUND, CONTINUED

The Beginning of Exile, *continued*

The Ngati Raukawa chief Te Whatanui tried to capitalise on the deserted nature of the province and establish himself. But the guardians sent word back to Nukutaurua at Mahia and a war party came down to drive him out.

Two serious attempts were made, both centred on Roto a Tara and twice Pareihe's forces repelled them. Ngai Te Upokoiri were present at both. The names of the fights were Kahotea and Roto a Tara II. At the second of these fights, circa 1827, the Upokoiri chiefs Whiuwhiu Hoia, Te Motu and Te Puke were killed and a young warrior named Renata Kawepo was captured.

These losses attracted further raids from exile. Ngai Te Upokoiri had established semi-permanent residence at Kuripaka near Massey University under the patronage of the Rangitane tribe. A younger brother of Te Wanikau had married a Rangitane woman which gave them access there. The raids were made on isolated pockets of people who for one reason or another were not at Mahia. On one such raid two prominent women were killed near Tangoio. One was Paeroa, mother of Te Moananui, principal chief of Heretaunga, and this delayed repatriation for Ngai Te Upokoiri for twenty years.

In 1830 the lands of Ngai Te Upokoiri and Ngati Hinemanu lay bare. A generation of children would be born elsewhere and many older members of the hapu would die in exile. Their losses and regrets, their sorrows and their longings would be communicated to a new generation in waiata and wananga on foreign soils.

More than 20 years were to pass before Ngai Te Upokoiri were to return to their homelands or even to be given the opportunity to do so.

Continued on next page

HISTORICAL BACKGROUND, CONTINUED

Reference to Upper Waipawa And Makaroro

The closest location of a pa site in the vicinity of the proposed dam site is provided by Raniera Te Ahiko:

‘Korokairahui lived at Rakautatahi. It was his chief settlement. He used to come to Motu o puka with his chief Tuawahia. Tamakiuru and amiria lived at Rakautatahi – Ruahine. Rangikoianake was killed at Motu o puka by Ngati Kahungunu but as he was sacred he was not eaten. Amiria was taken at Te Ruru in Manawatu by Ngati Kahungunu and taken to Wairoa. Karena, her son was born there. Te Rere, the sister of Korokairahui lived at Motu o puka and Rakautatahi as well as at Te Kehou where they had a burial ground. Motu o puka is near headwaters of Waipawa. The descendants of Tamakitawhiti and Rangimanahanaha never lived under Te Uamairangi, Tuhotoariki or Te Wanikau.’¹⁵

The location of Motu o puka is uncertain. One candidate is a pa site with a white trig on it to the left of Makaroro Road before the descent to the river. Another site with evidence of occupation is below the river terrace several hundred metres north of the trig. It may have served as a look-out post.

Repatriation of Ngai Te Upokoiri – 1850

Renata Kawepo accompanied the missionary William Colenso to Ahuriri in December 1844 and worked tirelessly to persuade the chiefs to invite them back. Principal among these was Te Moananui, whose mother, Paeroa, had been killed by Ngai Te Upokoiri and Renata had to tread delicately in his negotiations. While the chiefs were attending the tangi for Te Wanikau in the Manawatu, Te Moananui extended the invitation to return, a condition being the return of his mother’s head.

The return of the first batch of Upokoiri coincided with the arrival of Government Land Commissioner Donald McLean in 1850. They set up camp at Pokonao, close by Colenso’s mission station at Waitangi. By the time the second heke arrived in 1855, they had relocated to Old Omahu near the junction of the Ohiwia stream with the Ngaruroro.

Continued on next page

¹⁵ Napier Min Bk 21, page 1. Partition of Mangaohane 1. Ev. Raniera Te Ahiko.

HISTORICAL BACKGROUND, CONTINUED

Repatriation of Ngai Te Upokoiri – 1850, *continued*

A new enemy arose to disturb Renata and his people during their repatriation. The Government had enlisted the services of Te Hapuku, one of the principal chiefs, to facilitate in the acquisition of land. Troubles began surfacing on a regular basis concerning Te Hapuku's dealings. Particularly sensitive were the lands at Maraekakaho, Aorangi and Kereru, which Te Hapuku treated as though he had absolute authority to sell. Tensions mounted and it became apparent that if things were not defused, war would break out. Renata allied himself with Tareha and Paora Kaiwhata, the principal chiefs of Ngati Parau and Ngati Hinepare, and prepared for battle. Between 1855 and 1857 relations between Te Hapuku and the allied chiefs continued to deteriorate. Renata was later to observe:

‘Keruru was sold to the Europeans, also Tapuaeharuru, also Aorangi, also Otakuao. These belonged to my brothers and my sister of whom I have spoken and they continued to push their land through the court. Then the surveyor came here to survey the last [land] we had. When they came here I thought that the only way out of the difficulty would be to fight – rather die than lose the land.’¹⁶

While the Government Land Commissioner, G.S. Cooper could view the situation with a certain satisfaction, there was both his, and the Government's image to uphold. Civil war was imminent and Renata and the other chiefs were vocal concerning its cause. Cooper hastily requested a further payment to appease the customary owners whose lands had been sold out from under them. £1300 was authorised on 4 July 1857, and amounted to an admission of wrongdoing by the Government.

The Battle of Pakiaka 1857

The Government payment came too late to avert the inevitable. The allied chiefs wanted Te Hapuku off the Heretaunga plains and would settle for nothing less. Te Hapuku was removing timber from the Pakiaka bush and rumour was that he intended to occupy Tanenuiarangi pa on the banks of the Ngaruroro. Pre-empting any such action by Te Hapuku, the allied chiefs occupied the pa themselves and set about strengthening it. A squad was stationed at Pakiaka to deny Hapuku access to the timber. The Rev. Samuel Williams intervened on his behalf and the chiefs agreed to dry firewood being taken. When they observed the next morning that green wood was being removed to fortify Te Ngaue pa they abandoned any further attempts at reconciliation.

Continued on next page

¹⁶ Napier Min Bk 5, page 187. Succ. To Ria Tawhara. Ev. Renata Kawepo.

HISTORICAL BACKGROUND, CONTINUED

The Battle of Pakiaka 1857, *continued*

When Te Hapuku's men next came to gather timber at Pakiaka they were greeted by a volley of musket fire and hastily retreated. Battle lines were drawn and spasmodic bouts of combat during the latter stages of 1857 kept Te Hapuku at bay. The decisive battle took place on 9 December when Te Hapuku was worsted with the loss of several of his followers. Amongst the casualties was Te Hapuku's father in law Puhara.

Te Hapuku was very bitter about his defeat and resulting loss of mana. The allied chiefs were unrepentant and demanded his removal to Te Hauke. This he resisted for several months on various pretexts but the writing was on the wall. The Rev. James Hamlin came down from Wairoa to mediate. Even Donald McLean made a token gesture on behalf of Te Hapuku, but to no avail. He finally vacated Te Ngaue on 4 March 1858 after a spectacular ceremony the previous evening during which the pa was torched and a lengthy tangi conducted.

Alluding to the situation of Ngai Te Upokoiri nearly thirty years after the event, tribal historian Hoana Pakapaka summed up:

‘We would never have returned from Manawatu if we had not been brought back by Renata. We looked on that place as our future home. The fight at Pakiaka was on account of all the land in the district. It was Renata who brought that fight about. He was victorious although he was wounded in the hand. He made the first onset. These lands would all have been lost to us if Renata had been defeated as no-one would have dared to oppose the wishes of the chief [Te Hapuku].’¹⁷

Ongoing Land Sales

It reflects badly on the Government of the time that the defeat of Te Hapuku and the reasons for the conflict did not put an end to land sales where Ngai Te Upokoiri had an interest, nor to Te Hapuku's involvement in them. They marched on relentlessly until all the lands from the Ngaruroro river south to the Waipawa river were purchased by the Crown. These purchases represented the bulk of the Ngai Te Upokoiri, Honomokai and Ngati Hinemanu landed estates. Te Hapuku's name heads each of the Crown purchases.

Continued on next page

¹⁷ Napier Min Bk 11, page 93. Ngatarawa 1 hearing. Ev. Hoana Pakapaka.

HISTORICAL BACKGROUND, CONTINUED

Ongoing Land Sales, continued	<p>The following are the blocks that were affected. They have been extracted from Turton's Deeds in order of purchase.</p> <ol style="list-style-type: none">1. Maraekakaho (east of Highway 50) 20.11.18562. Manga a Rangipeke (east of Highway 50) 3.1.18573. Otaranga (west of Highway 50) 15.4.18574. Manga a Rangipeke (west of Highway 50) 29.6.18575. Maraekakaho (mostly west of Highway 50) 4.7.18576. Ruataniwha North and Ruahine (west of Highway 50) 27.6.18597. Ruahine (with reserve of 500 acres at Tikokino) 11.8.18598. Ruataniwha North (between Makaroro and Mangatauri) 11.8.18599. Waro o Manawakawa (includes Makaroro) 11.8.185910. Kereru (including Kereru Bush) 15.8.185911. Ruahine (up onto Ruahines west of Wakarara) 25.8.1859
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Conclusion	<p>This investigation concludes at the point of the above sales when Ngai Te Upokoiri's interests in the land were extinguished. An aftermath of the Pakiaka battle was the return of 750 acres to Renata Kawepo and his people at Aorangi. It was part of the package including a monetary payment which was negotiated in 1857. The land was located on the west side of the Mangatahi stream above the junction with the Ngaruroro river. A Crown-grant was issued to Ngai Te Upokoiri on 8.9.1900.¹⁸</p>
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Subsequent History of the Wakarara Area	<p>European settlers moved into the Wakarara from the early 1860s.¹⁹ Samuel Fletcher was the first to acquire land, his first home being built at Heavitree. Other 19th and early 20th century settlers included John and James Peers, James Barlow, Ralph Douglas, Alf and Chris Berkahn, George Burkin, Edwin Turfrey (who ran the mail), Jack Carson (who ran a milling operation from 1908 for three years), Edward Worsnop, Andrew Taylor and their families. However, a detailed history is beyond the scope of this report.</p>
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¹⁸ Napier Min Bk 53, page 121-125. Aorangi Reserve Judgt.

¹⁹ <http://ketechn.peoplesnetworknz.info/site/topics/show/41-wakarara>

ASSESSMENT RESULTS

Physical Environment

The Makaroro River is located in the foothills of the Wakarara Range to the east and the Ruahine Range to the west, in inland Hawke's Bay. The landscape is steeply dissected by the river and tributaries, which include Dutch Creek in the northern end of the Scheme area. The Makaroro River is a braided river system and gradual geomorphological processes have resulted in a series of large terraces many metres above the present river valley. On the western side of the river the terraces and slopes are in pasture for both sheep and dairy. The eastern side rises steeply – in some places sheer cliffs meet the river. There is extensive forestry in the northern area, on the eastern and northern river banks (Figure 1, Figure 2). The eastern side also has areas in pasture but these tend to be more elevated above the current river than those on the western side.

Recorded Archaeological and Other Sites

No archaeological sites have been recorded near the Scheme area although some pa sites and historic sites are recorded in the wider region (Figure 9). The nearest recorded sites are the Ellis Hut (NZAA site no. U21/13) approximately 7km to the north, and a cluster of sites c.10km to the east comprising two pa (U22/1 and U22/2) and a pit/terrace site (U22/4).

Information regarding Maori sites in the region was provided by Dr Benita Wakefield (see Wakefield et al. 2010, 2011). A map of sites was geo-referenced and 3 pa sites were identified in the general vicinity of the Scheme (Table 1 and Figure 10). Hakiuru and Kihiao pa could be correlated with the archaeological sites U22/1 and U22/2. The unnamed pa could not be identified but appears to be located several kilometres south-east of the Scheme area. None of these sites would be impacted by the RWSS.

Table 1. Maori Pa Sites within the Tukituki Catchment (see Figure 10)

28	Hakiuru Pa: Ngai Te Upokoiri
29	Kihiao Pa: Ngai Te Upokoiri
30	unnamed pa: Ngai Te Upokoiri

Continued on next page

ASSESSMENT RESULTS, CONTINUED

LINZ Plans and Titles

A number of LINZ plans were examined to determine whether any heritage features could be identified. Figure 11 and Figure 12 show two examples on the eastern and western side of the Makaroro River, but no archaeological sites or features were identifiable. Titles associated with the northern block, where a historic mill known as Gardner and Yeoman's Mill was located (see Figure 2), were examined. Title deed HB2/189 (see Appendix B) identified the granting of a lease to Edwin Turfrey. Interestingly the Yeomans do not appear to have taken ownership of the block until 1951, although the Mill was there much earlier. Further information on the Mill is presented below.

A photograph showing the branching of the Makaroro River with Dutch Creek was published in 1958 (Figure 13) with a description of the geology of the area, and there is no indication of any mill infrastructure visible.

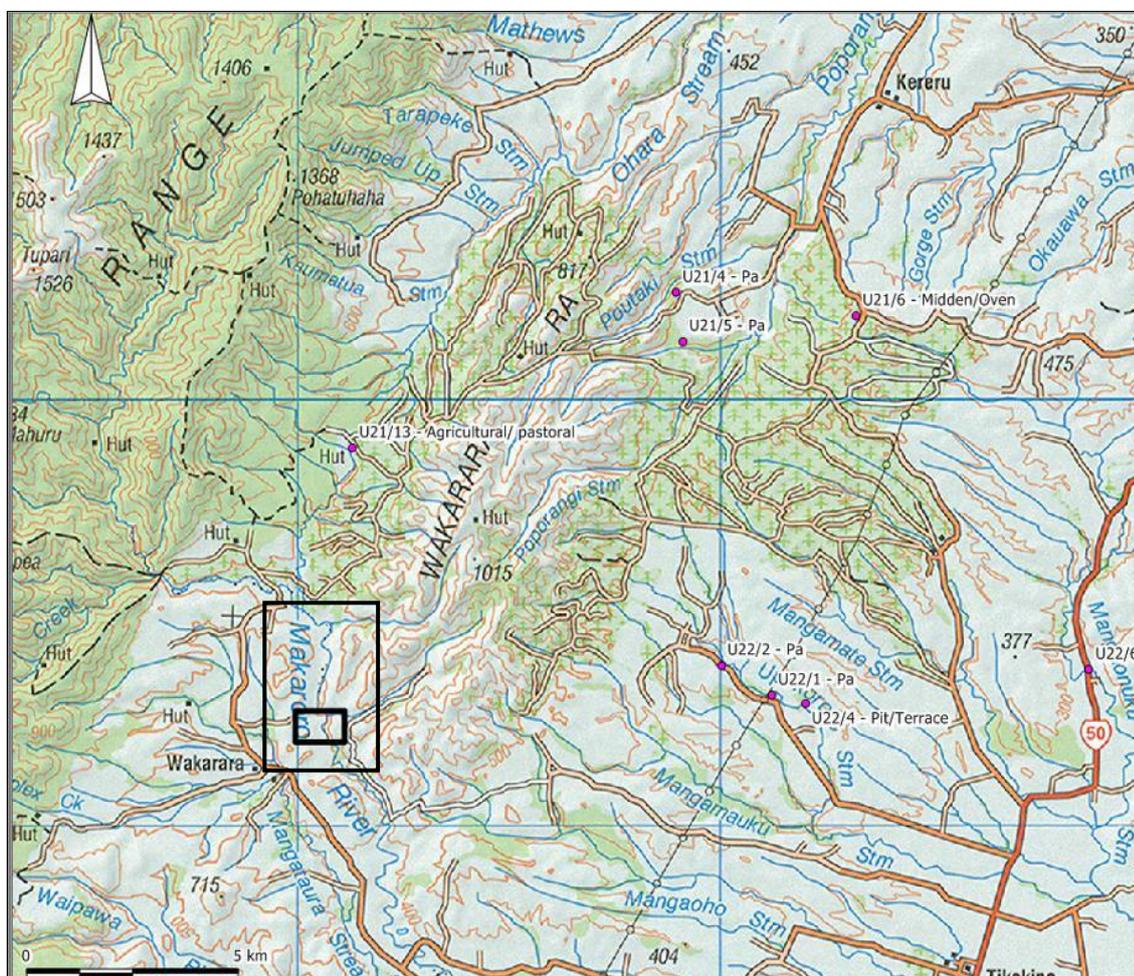


Figure 9. Previously recorded archaeological sites in the region (red dots) around proposed dam site (Source: NZAA ArchSite 2011)

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ASSESSMENT RESULTS, CONTINUED

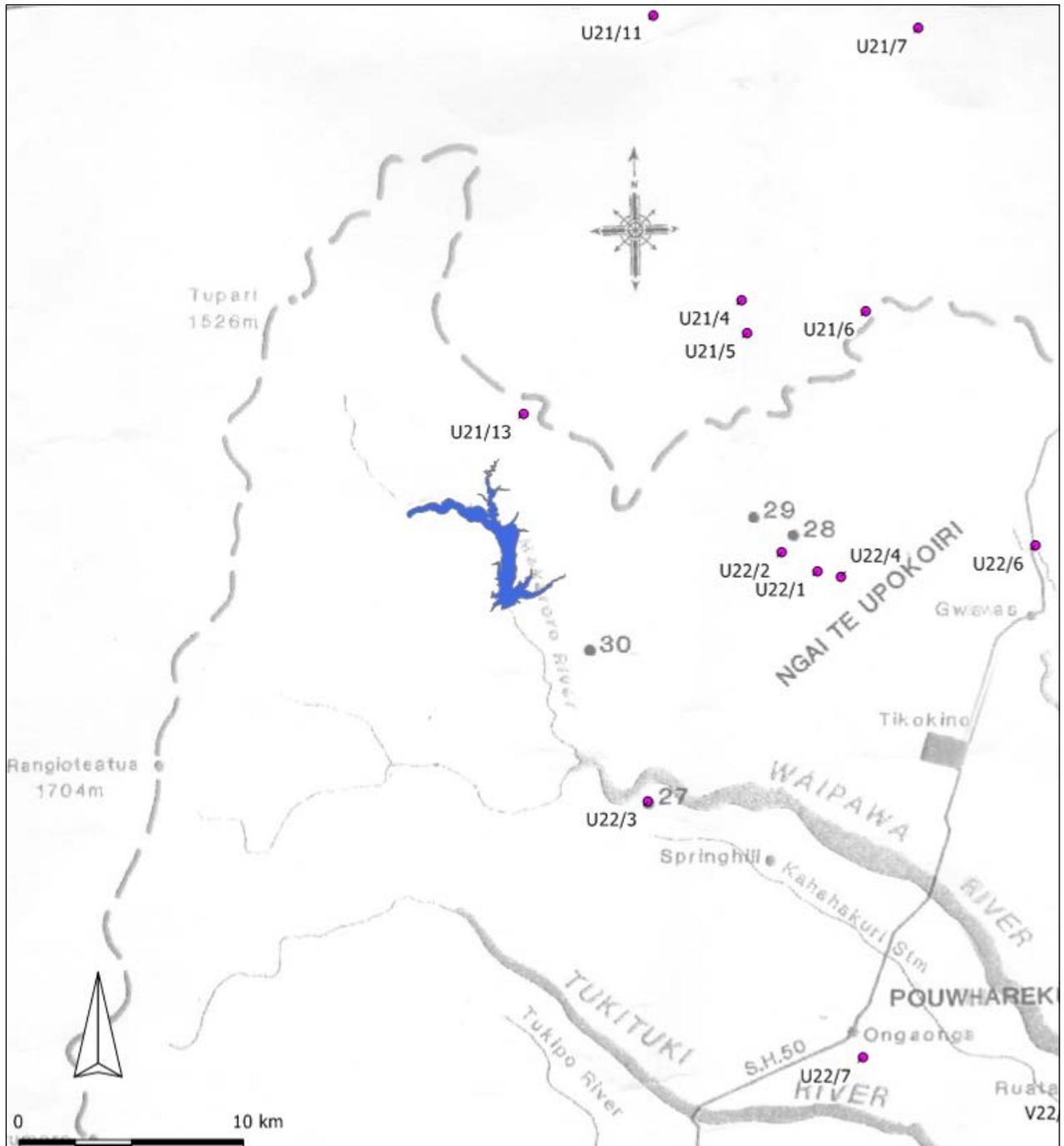


Figure 10. Map of pa sites in the Tukituki catchment (Wakefield et al. 2010, 2011), correlated with recorded archaeological sites (numbers prefaced with U21 or U22)

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ASSESSMENT RESULTS, CONTINUED

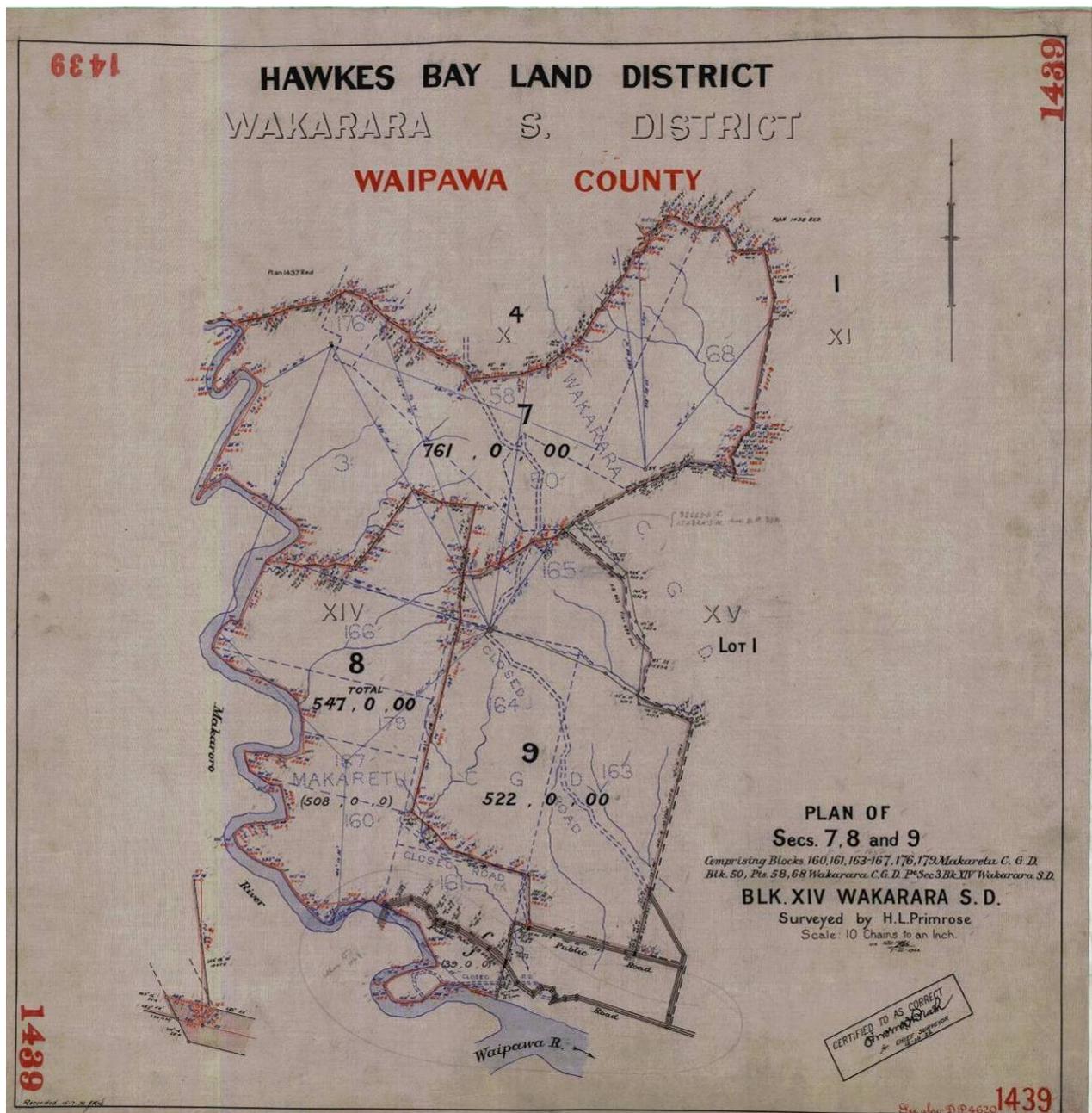


Figure 11. SO 1439 dated 1922 showing eastern side of the Makaroro River

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ASSESSMENT RESULTS, CONTINUED

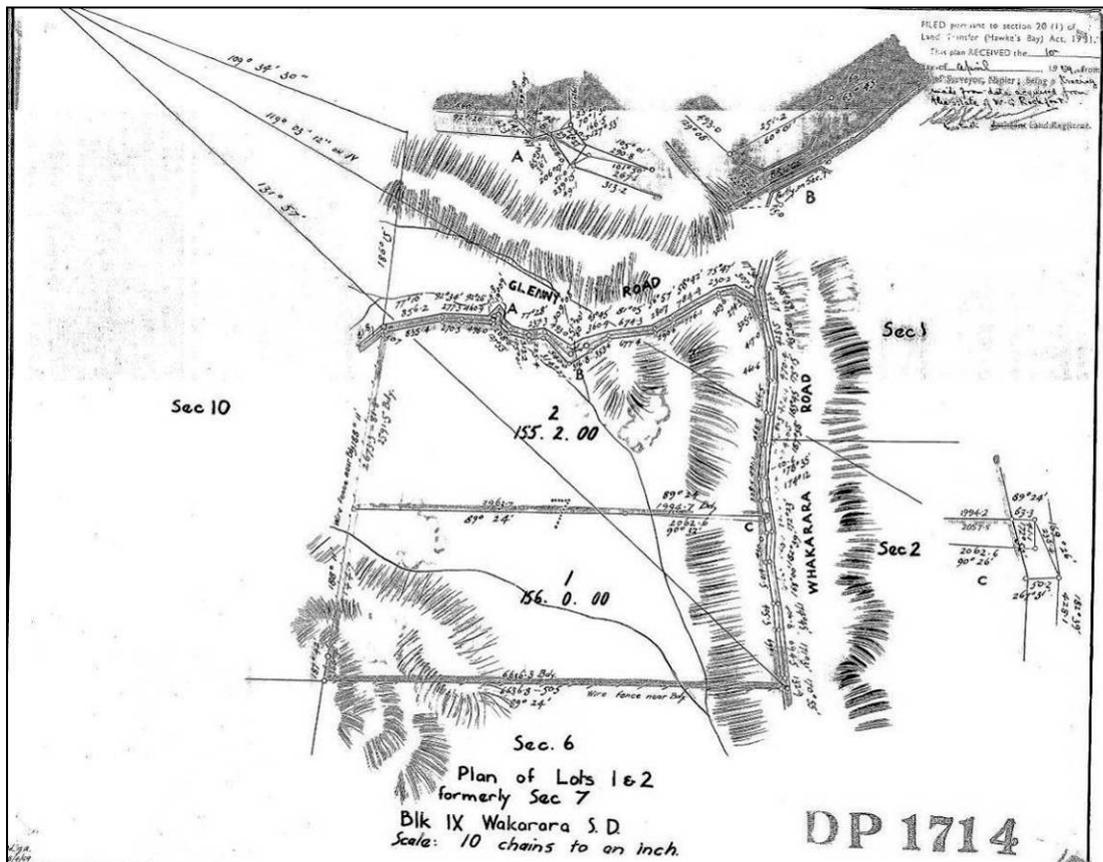


Figure 12. DP 1714 dated 1959 showing north-western end of the Scheme area



Figure 13. View north across the Gardner and Yeoman's Mill towards Dutch Creek (Kingma 1958)

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ASSESSMENT RESULTS, CONTINUED

September 2011 Field Visit

The area of the proposed dam was examined on both sides of the Makaroro River (Figure 14 and Figure 15). On the western side a small rocky hill is located on the flattish plains above the river (Figure 16). The hill is narrow and quite exposed to the elements. The outcrop was examined, but no archaeological features were identified. A cluster of rocks was observed but these are unlikely to be archaeological (Figure 17).

The slopes above the small hill were examined along with another hill to the north, but no archaeological features were found. A stream cuts across the flats to the north of the hill and empties down the steep slope to the river. No archaeological features were identified along the stream.

The eastern side of the river (Figure 15, Figure 18) was examined, with the ridgeline above the flat plain walked to see whether any signs of Maori occupation were visible. A cow skeleton was found in a small depression to the south of the dam area but was obviously modern (Figure 19). No archaeological features were identified around the proposed dam site or along the ridgeline to the south. Small depressions dot the landscape but relate to tree throws, with old stumps visibly rotting in the more recent throws (Figure 20 and Figure 21).

The steepness and depth of the river gorge at this point would have made access between the river and any hillside settlement unnecessarily difficult when other suitable areas were available nearby.

January 2012 Field Visit

A wider area was surveyed in January 2012. The western and southern side of the river was the primary focus as most of the flooding will occur in this lower lying area. The topography on the western side is lower and gentler than on the east but access to the river is restricted in some areas by ancient raised river terracing which drops down steeply down to the river itself, and is often bush covered (Figure 22, Figure 23). There are a number of places where the river is accessible and flattish terracing where some early settlement would have been possible. However, no archaeological features were identified. A ditch-like feature was noted (Figure 23), but is of natural origin (a former watercourse).

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ASSESSMENT RESULTS, CONTINUED

January 2012 Visit, *continued*

A small island near the junction of the Makaroro River with Dutch Creek (Figure 24), home to falcons and bats according to local farmer Mr Wilson, was viewed from a distance but was not examined as it is heavily forested and was inaccessible.

The river terrace north of Glenlynn Road (Figure 25), was surveyed but no archaeological features were identified there.

Along most of the length of the river, the land on the eastern and northern side consists of steep hills that drop down to relatively narrow ancient river terracing before dropping steeply down to the river itself (Figure 22, Figure 25). Direct access from the hills to the water from this side would have been severely restricted. The eastern side of the river was therefore not examined as no archaeological sites were visible, and the high cliff face along most of the area, as well as the forestry at the northern end, made the chances of archaeology being present or identifiable very low.

Gardner and Yeoman Sawmill

The only heritage site identified in the Scheme area was the remains of the Gardner and Yeoman's Sawmill on the southern river terraces at a bend in the Makaroro River where it turns to flow west near the junction with Dutch Creek (Figure 26, Figure 27). The site is well known by the locals. It operated from 1926 and ran for 30 years, handling over 50 million feet of podocarp logs and employing up to 18 people.²⁰ It is not visible in Figure 13 dating to 1958, although this only shows eastern end of the mill site.

The site was walked over and a number of remains including old concrete floors, a cast iron boiler and collapsed iron stack (Figure 27, Figure 28, Figure 32), wooden bearers with iron bolts and cross beams (behind the boiler) that were part of the mill floor (Figure 29), concrete remains including the flywheel guide pit and other structures that may have been water tanks at the back of the site (Figure 30, Figure 31). The boiler was made at the Robertson's Phoenix Foundry in Wellington (Figure 33). Remains of the machinery were removed from the site some years ago and are currently held at the Tokomaru Steam Museum²¹ near Palmerston North. Esma Stevenson at the Museum was contacted and confirmed that they had:

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²⁰ <http://www.doc.govt.nz/parks-and-recreation/tracks-and-walks/hawkes-bay/hawkes-bay/yeomans-track/> . Gardner & Yeoman had earlier sawmills in the Pukehinau and Pongaroa Districts (referred to in advertisements, e.g. *Bush Advocate*, 23 Feb. 1906: 3). The latter was destroyed by fire in 1915 (*Bay of Plenty Times*, 19 Jan. 1915: 3).

²¹ <http://www.uniquelynz.com/tokomaru.htm>

ASSESSMENT RESULTS, CONTINUED

Gardner and Yeoman Sawmill

1. Tangye 4 h.p. engine
2. Tangye coupled engine 138 b.h.p.
3. Log Hauler built by the Vulcan Foundry in Napier.

Detailed historic research into the history of the Sawmill has not been undertaken, but the sawmill settlement included a school for over 20 children, a school master's house along with a number of houses occupied by mill workers and structures relating to the mill. Archival information hints at some of the dangers of living in the area, which was subject to bushfires (Figure 34). Photographs showing the old bridge (Figure 35) and the extent of the mill operation during the 1930s (Figure 36) were examined, and much more information could be obtained if further research is carried out. Overall, there is evidence of substantial remains of the sawmill, which will be flooded by the Scheme.

There is a Department of Conservation tramping and mountain biking track associated with the mill, known as Yeoman's Track, running from the northern side of the Makaroro River to Ellis Road. The track follows an old route along which logs were once hauled to the mill.²²



Figure 14. View of west side of Makororo River in area of proposed dam

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²² <http://www.doc.govt.nz/parks-and-recreation/tracks-and-walks/hawkes-bay/hawkes-bay/yeomans-track/>

ASSESSMENT RESULTS, CONTINUED



Figure 15. View to the east across the area of the proposed dam



Figure 16. Small hill on western side of Makaroro River in area of the proposed dam



Figure 17. Natural stone cluster on small hill in vicinity of dam

Continued on next page

ASSESSMENT RESULTS, CONTINUED



Figure 18. View of top of the ridge on the eastern bank of the river looking back across the area of the proposed dam



Figure 19. Cow burial visible in depression on the eastern side of the Makaroro River just south of the proposed dam



Figure 20. Rotting tree stump in tree throw depression on eastern side of Makaroro River



Figure 21. Typical tree throws along ridge on eastern side of Makaroro River just south of the proposed dam

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ASSESSMENT RESULTS, CONTINUED



Figure 22. View from western side of Makaroro River, towards the steep cliffs on the eastern side



Figure 23. View of natural ditch-like feature on old river terrace on the western side of Makaroro River



Figure 24. View across to the small island at the northern end of Scheme area

Continued on next page

ASSESSMENT RESULTS, CONTINUED



Figure 25. View looking north-west across at the northern end of Scheme area



Figure 26. View north-west across to the Mill area showing the river terracing

Continued on next page

ASSESSMENT RESULTS, CONTINUED



Figure 27. View north-east across Gardner and Yeoman’s Mill area, showing the boiler and steep cliffs on the northern side of the river. The end of the cliff at right marks the start of Dutch Creek



Figure 28. Boiler and collapsed stack



Figure 29. Wooden bearer with iron bolt and cross beam (part of the Mill floor)

Continued on next page

ASSESSMENT RESULTS, CONTINUED



Figure 30. Concrete remains on mill settlement site



Figure 31. Concrete remains with old water pipes



Figure 32. Close up of boiler

Continued on next page



Figure 33. Close-up of manufacturing mark on the boiler

HASTINGS, This Day.
Fanned by a high wind an extensive bush fire swept down on the Wakarara district, Central Hawke's Bay, today, endangering about 40 people, including women and children, and threatening to engulf a sawmill, schoolhouse, and dwellings.

Figure 34. *Evening Post*, Volume CXXVII, Issue 8, 11 January 1939, Page 11



Figure 35. Bridge across the Makaroro River

Continued on next page

ASSESSMENT RESULTS, CONTINUED



Figure 36. View of Gardner and Yeoman Mill c.1935 looking south-east; chimney stack visible at left (arrow) and school at right (right arrow). Photo kindly provided by local farmer Stephen Wilson

Continued on next page

ASSESSMENT RESULTS, CONTINUED

Water Distribution Network

A desktop assessment was made of the possible effects of works related to the water distribution network (primary and secondary). Figure 37 shows the location of the proposed infrastructure and previously recorded archaeological sites. Overall, the density of previously recorded archaeological sites is low. There is a cluster around Waipukurau in the south-east, but none of the sites there will be impacted.

The routes of the pipelines generally follow the path of established roads and this means that finding intact archaeological remains would be unlikely. The site closest to proposed works is U22/5, consisting of a cluster of 8 pits, recorded south of Tukipo River and south of Ashcroft Rd where a secondary pipeline is proposed. This site was recorded in 1990 (NZAA Site Record Form) on the rise above the River from aerial photographs, but its position and current condition were not confirmed subsequently. The original description suggests that it is located around 300-400m from the pipeline along Ashcroft Rd and therefore would not be impacted upon. Other sites in the area are farther away from the proposed infrastructure.

The headrace route does cross farmland and this increases the possibility of unrecorded archaeological sites being encountered. It was not possible to survey the route of the proposed headrace but, as noted earlier, the density of recorded archaeological sites here is low. Two areas where the headrace crosses the Waipawa and Tukituki Rivers (Figure 37) are considered to have a slightly higher chance of archaeological sites as the rivers were the focal point of pre-European transport and nearby settlement (e.g., the U22/3 pa site above the Waipawa River to the west of the proposed intake).

Three urupa near the pipeline network near Makaroro Road are scheduled in the Central Hawke's Bay District Council District Plan (#237, 238, 239). These scheduled urupa will not be affected by the proposed works.

Satellite imagery of these areas (Figure 38) did not reveal any obvious archaeological signs. The likelihood of features being present in the locations of the crossings is low, but the possibility cannot be entirely ruled out.

LINZ plans showing the river crossings were also examined for any information regarding heritage features along the headrace route. No archaeological features were identified, although early 20th century water races were noted at both river crossings. One early water race, the Forest Gate Water Race, is west of the currently proposed crossing of the Tukituki River and visible on the 1938 plan (Figure 39). It is not impacted by the proposed works and not known to be an archaeological site.

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ASSESSMENT RESULTS, CONTINUED

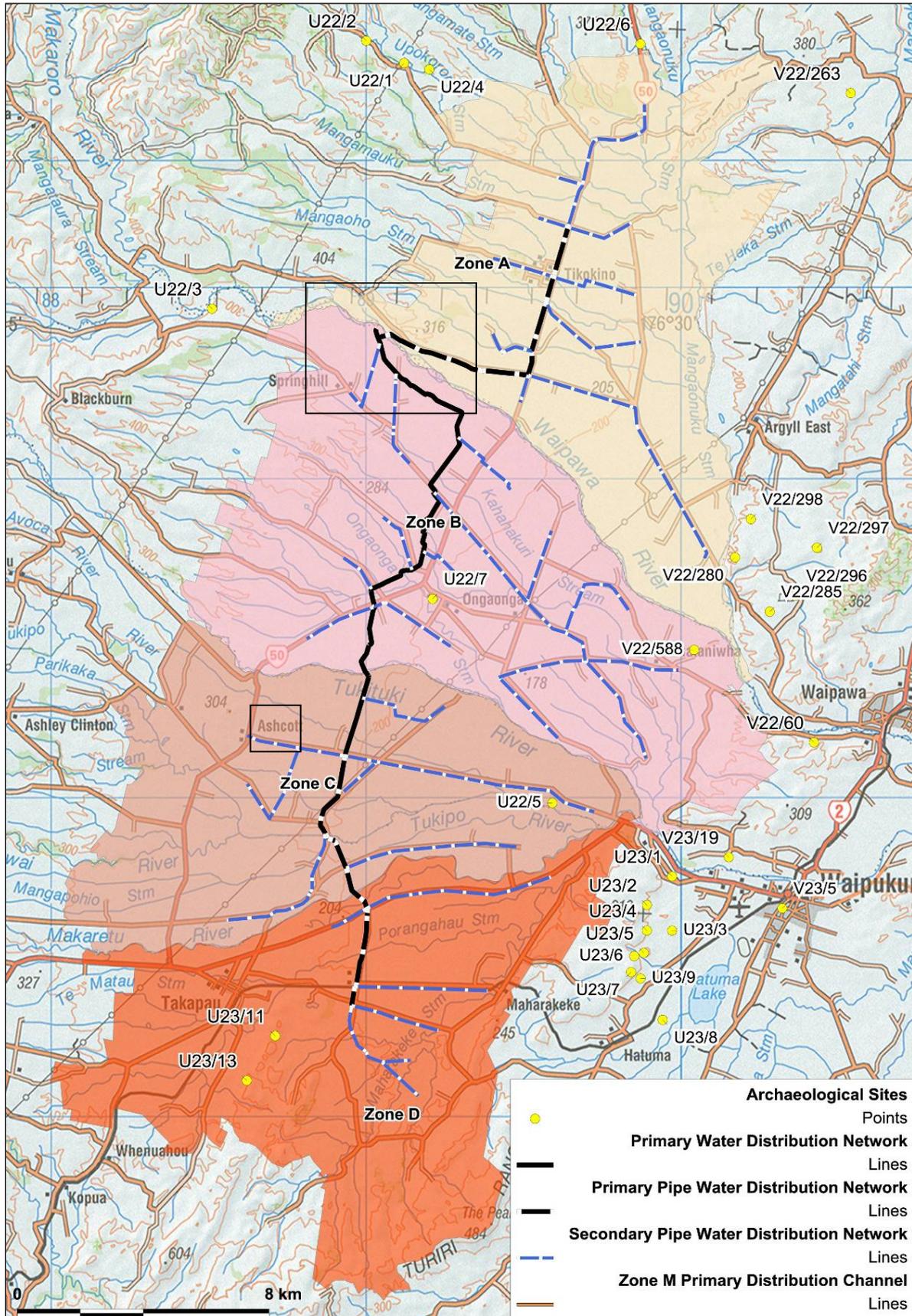


Figure 37. Water distribution network with previously recorded archaeological sites and major river crossing

ASSESSMENT RESULTS, CONTINUED

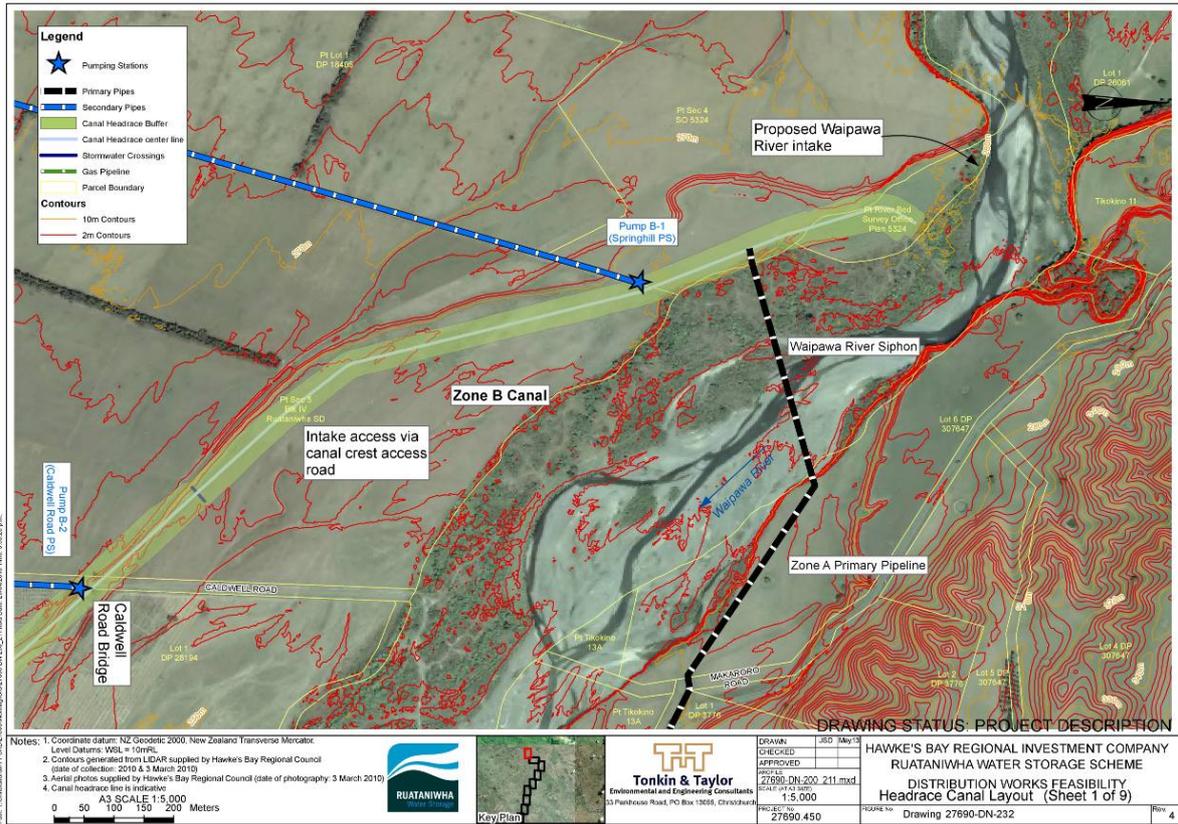


Figure 38. Location of Waipawa River intake

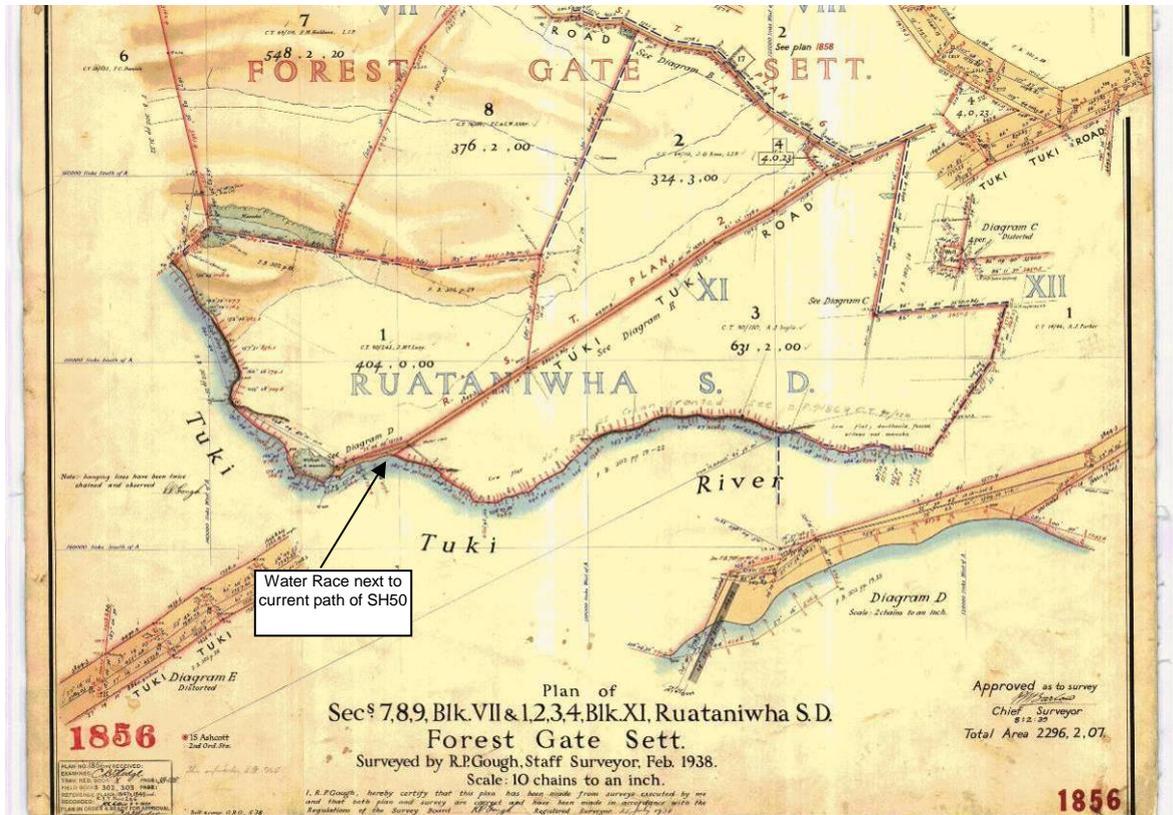


Figure 39. HB SO 11856 dating to 1938 showing area of proposed crossing north of the Tukituki River

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ASSESSMENT RESULTS, CONTINUED

Zone M

Zone M east of Waipawa (Figure 1) is much closer to the coast and not surprisingly the density of archaeological sites previously recorded here is significantly greater than in Zones A-D. Table 2 and Figure 40 show the sites within Zone M.

The majority of the sites are Maori and include pa and a number of pit and terrace sites demonstrating pre-European settlement around the Papanui Stream and Tukituki River. The sites are concentrated in hilly country between Otane and Te Hauke. A number of sites are also recorded near the Papanui Stream.

The information on three sites that were particularly close to the Papanui Stream (former Waipawa river) channel (Figure 40) were examined in detail:

- V22/250 and V22/409 – identified as clusters of pits
- V22/301 – old pa site.

V22/250 (Figure 41) is described as two sets of pits on either side of a gully. The pits are visible on the satellite imagery. Less obvious are the pits described as V22/409 (Figure 42) but the site record form places them along this ridgeline well above the River.

Ngawhakatara pa, V22/301, is also visible (Figure 43) on a small ridge above flood flats of the River. The defensive ditches remain distinct as do many of the internal features. This site would have to be avoided by any future works.

Changes to the River flow are unlikely to affect known archaeological sites as they are found generally above the River and associated flood zones. As the sites are generally on higher ground they are less likely to be affected by a new water distribution network here but specific design and field survey would be required to minimise effects.

Wakefield et al. (2013) have identified changes to the waterways within Zone M that occurred during the latter half of the 19th Century onwards and discussed the significance of these changes to local communities. Wakefield et al. (2013:19ff) have also highlighted the presence of four additional wahi tapu that have not been previously recorded as archaeological sites and recommended that these be avoided (Wakefield et al. 2013: Figure 3.3). These recommendations are supported here. These features include two pa, a spring and a WWI burial ground. Archaeological survey of the two pa sites and recording of the sites in the NZAA site record scheme is recommended once detailed engineering plans for this area are developed.

Continued on next page

ASSESSMENT RESULTS, CONTINUED

Table 2. Previously recorded archaeological sites in Zone M (Source NZAA ArchSite)

NZAA ID	Name	Site Type	Description	Easting	Northing
V22/71		Pit/Terrace	4 pits, scattered and shallow.	1914730	5581136
V22/72		Pit/Terrace	2 pits and 2 terraces	1914730	5581036
V22/90	Kahotea South	Pa	2 lines of transverse scarps across saddle facing N	1912929	5581036
V22/119	Kahotea North	Pa	Terraced pa, with palisades	1912829	5581136
V22/234		Pit/Terrace	Pit group: raised rim pits - 8 large ones 6x4x1m and 3 small	1918471	5584567
V22/247		Pa	Small Pa on hill, with gardens on North/West and further on South sides	1919292	5584787
V22/250	Pinepine	Pit/Terrace	Group of pits on both sides of gully	1919745	5584718
V22/287		Pit/Terrace	Pits/Terraces	1917633	5576933
V22/290		Pit/Terrace	Pits	1910829	5571228
V22/291		Pit/Terrace	Pits	1916132	5576933
V22/292		Pit/Terrace	Pits	1910528	5570627
V22/294		Pit/Terrace	Platforms/Pits	1910528	5571328
V22/301	Ngawhakatatara (Old Patangata Pa)	Pa	Pa on end of flats on steep end ridge, very compact, deep ditch with bank.	1918933	5583639
V22/332		Pit/Terrace	Pit	1914830	5580836
V22/333		Pit/Terrace	Pit	1914530	5580736
V22/334		Pit/Terrace	Pits	1914030	5580736
V22/335		Pit/Terrace	Pits	1914430	5580836
V22/337		Pit/Terrace	Pits	1912628	5580835
V22/342		Pit/Terrace	Pits	1914530	5581036
V22/343		Pit/Terrace	Pits/Terraces	1914730	5580936
V22/344		Pit/Terrace	1 pit 8x5m and terraces and depressions	1914630	5580836
V22/346		Pit/Terrace	Pits and associated features around flat top of hill	1914430	5581136
V22/347		Pit/Terrace	Group of at least 6 pits and other depressions. Very worn down	1914330	5580936
V22/365		Pa	Pits, etc. on small ridge. Ditch, 20m long, 5m wide and 3m deep	1913529	5580836
V22/368		Pa	Pa on flat hill above former Lake Rotoatara	1912829	5580835
V22/409		Pit/Terrace	Pit group with 2 large deep pits both 9x7x1.5m	1917332	5581637
V22/415		Pit/Terrace	Pit and terraces.	1916932	5581837
V22/421		Pit/Terrace	Scattered pits, largest raised rim pit 9x7m	1914830	5581136
V22/432		Agricultural	Drainage ditch dug by missionaries to drain Lake Rotoatara	1915131	5579735
V22/436		Pit/Terrace	Two large pits, damaged by stock and bulldozing	1913029	5580936
V22/437		Pit/Terrace	1 large raised rim pit 10x8m on flat ridge above old Lake Rotoatara	1912929	5580135
V22/438		Pit/Terrace	Single pit 8x5m on small knoll	1913729	5580235
V22/439		Pit/Terrace	Small E-W flat ridge with numerous pits/depressions, trench through the middle	1914630	5581236

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ASSESSMENT RESULTS, CONTINUED

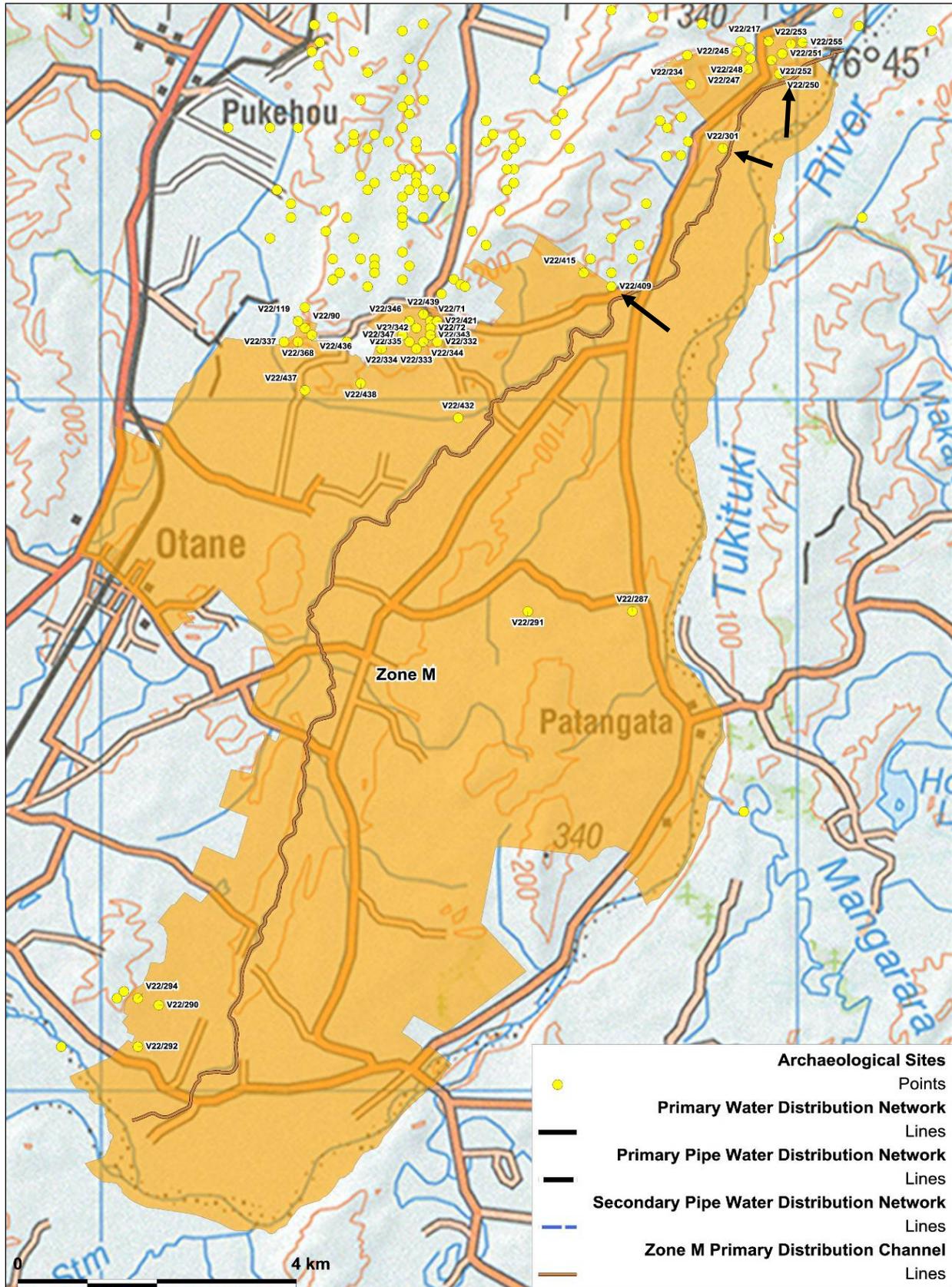


Figure 40. Previously recorded archaeological sites within Zone M (arrows indicate 3 sites close to the river)

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ASSESSMENT RESULTS, CONTINUED

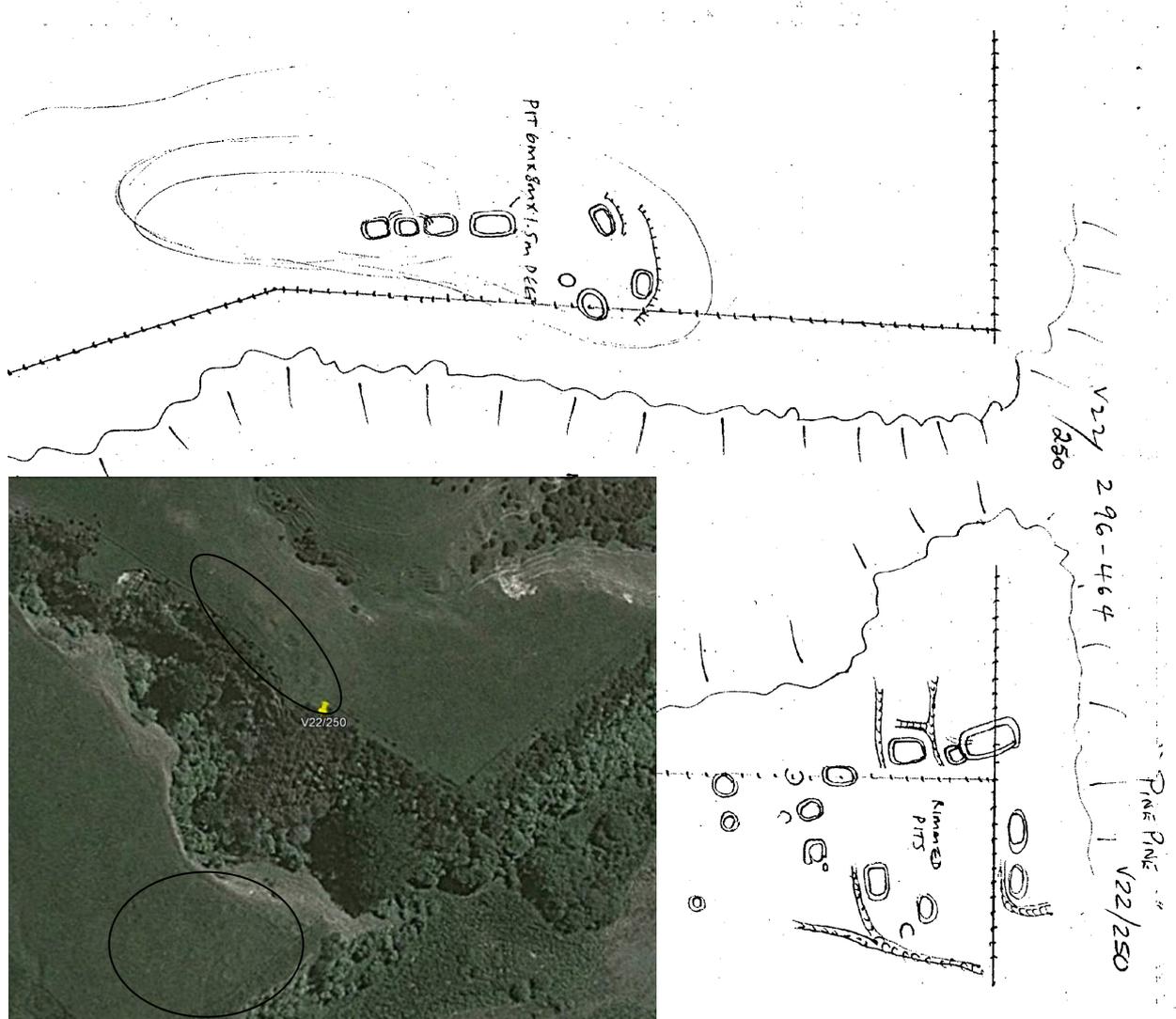


Figure 41. Plan of V22/250 (Source: NZAA Site Record Form) and Google image



Figure 42. Google image showing approximate location of V22/409

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ASSESSMENT RESULTS, CONTINUED

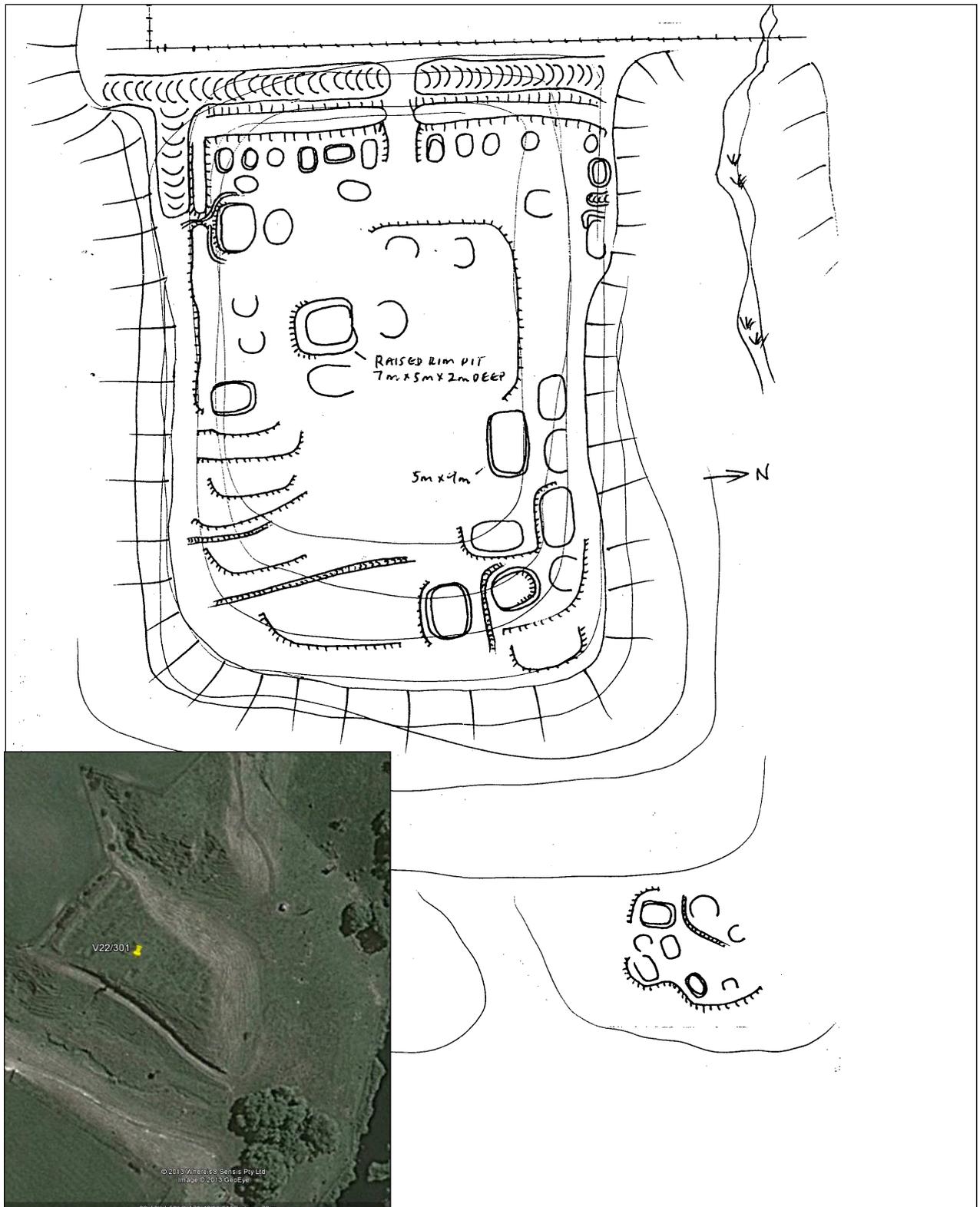


Figure 43. Plan of V22/301 (Source: NZAA Site Record Form) and Google image

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ASSESSMENT RESULTS, CONTINUED

Coastal Sediment Loss

An area around Haumoana has been identified as suffering a loss of sediment at the coast (Figure 44). No known archaeological sites would be affected by the proposed works near the Tukituki River to address this issue.

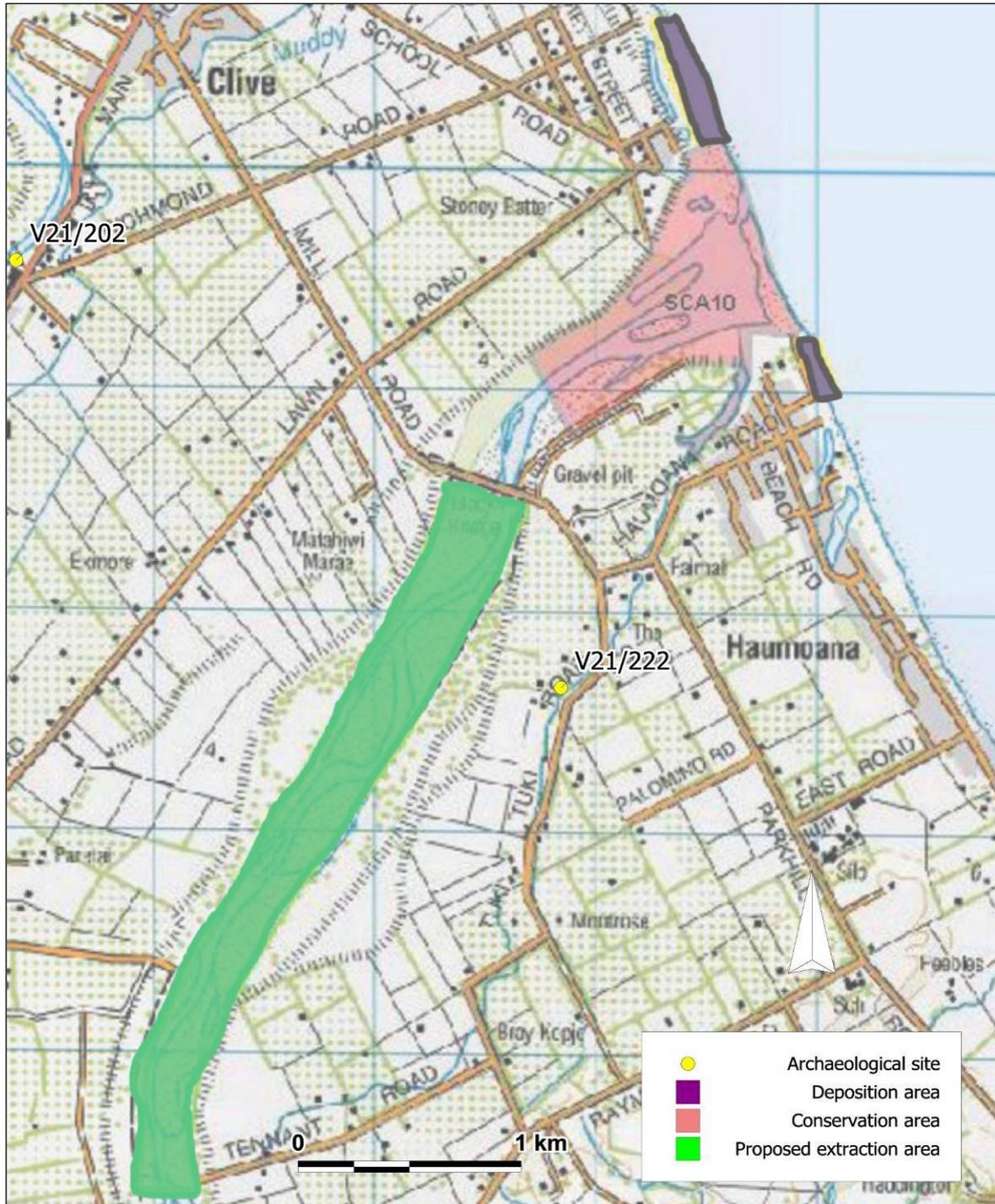


Figure 44. Recorded archaeological sites near proposed coastal sediment loss area

DISCUSSION AND CONCLUSIONS

Summary of Results and Archaeological Potential

No archaeological sites had been recorded in the immediate vicinity of the proposed dam and reservoir prior to the assessment, although sites including two Maori pa are recorded approximately 7-10km away.

No Maori or other pre-1900 archaeological sites were identified during the field survey. A number of depressions are visible across the landscape but are related to old trees, with stumps still visible in some of them, and a ditch-like feature on the western side of the Makaroro River is of natural origin.

Given the relatively steep drop off to the river over much of the Scheme area, it is likely that other locations would have been preferred for settlement in pre-European times. The density of archaeological sites previously recorded in the wider area around the proposed dam site is low.

One heritage site of early 20th century date was identified within the Scheme area – the site of Gardner and Yeoman’s Sawmill, located on the southern bank of the Makaroro River near Dutch Creek. Various remains of the mill operation were noted, dating from the period 1920s-1950s.

A desktop assessment covering the route of the proposed water distribution network was carried out but did not identify any archaeological sites likely to be impacted by the proposed work in Zones A-D. In Zone M, there are a number of archaeological sites that might be affected if earthworks were carried out there as part of the Zone M concept. The majority of sites are concentrated between Otane and Te Hauke.

Maori Cultural Values

This is an assessment of effects on archaeological values and does not include an assessment of Maori cultural values. Such assessments should only be made by the tangata whenua. Maori cultural concerns may encompass a wider range of values than those associated with archaeological sites. These have been discussed in Wakefield et al. (2010, 2011). No archaeological sites or potential archaeological sites were identified by tangata whenua in the Scheme area, though a number of pa were identified in the surrounding landscape.

Archaeological Value and Significance

While a number of archaeological sites relating to both Maori and early European settlement are recorded in the wider area c.7-10km away from the Reservoir, there are no known pre-1900 archaeological sites there, and the potential for unrecorded subsurface remains is considered low.

However, the Gardner and Yeoman’s Mill Site at the northern end of the Reservoir area is a 20th century site of some local heritage significance.

Continued on next page

DISCUSSION AND CONCLUSIONS, CONTINUED

Archaeological Value and Significance, continued

The mill, while marked as a historic site on topographic maps (Figure 2), is not currently included on the Central Hawke's Bay District Plan schedule of heritage items and notable trees (Appendix B to the District Plan),²³ and it is not included in the NZ Historic Places Trust's Register of Historic Places. It is not recorded on the NZAA archaeological site database, nor have any mills been listed as archaeological sites in the District Plan (Appendix F²⁴). This, however, does not mean that it has no archaeological or heritage significance or that it has no value to the local community.

Today, the site has no remaining buildings and parts of the machinery have been removed and stored in the museum. While this, and ongoing natural erosion of the remaining features, have affected the integrity of the site, the field assessment determined that it still has archaeological value. The remains include the boiler, the footings of a number of buildings, and remains of the water system, and have sufficient integrity to allow detailed recording and the recovery of information using archaeological methods.

While detailed research into the history of the mill has not yet been carried out, it clearly played a significant role in the social and economic history of the local community. It is of relatively late date (c.1920s to 1950s), but this means that some people who lived on the site would still be alive and able to provide historical information, while in other cases descendants would be aware of family associations to the site.

The site has educational potential relating to early 20th century sawmilling, the timber industry generally, social conditions and changes to the landscape, which could be realized through further historical research and the recovery of information from the surviving physical remains. The site was once part of a larger landscape, where native trees were cut down and dragged to the mill for processing before distribution. This landscape would have included the nearby forest, small houses nearby, the access to the river, the bridge and tracks. This general landscape, though, has evolved since the mill was operating and the forest to the north is planted in pine and eucalypts, the bridge has gone, and the current area of the mill is now farmland.

The area of the mill and mill settlement is a site of local historic heritage significance based on its archaeological and historical values and educational potential. However, its heritage values are considered to be moderate rather than high in view of its relatively late date and limited integrity.

A few archaeological sites are located in Zones A-D but the density of sites is low. Archaeological sites in Zone M include a number of pa as well as a variety of sites relating to prehistoric Maori settlements. Many appear to have significant archaeological values as features remain clearly visible in satellite imagery.

Continued on next page

²³ http://www.chbdc.govt.nz/assets/documents/Plans_and_Policies/DistrictPlan_2009/APP_B.pdf

²⁴ http://www.chbdc.govt.nz/assets/documents/Plans_and_Policies/DistrictPlan_2009/App_f.pdf

DISCUSSION AND CONCLUSIONS, CONTINUED

Effects of Proposal

The dam and reservoir proposal will have no effects on any known pre-1900 archaeological sites, and is unlikely to have any effects on any unidentified sites. However, the possibility that pre-1900 subsurface archaeological remains may be encountered during earthworks cannot be completely excluded.

The site of the early 20th century Gardner and Yeoman's Mill would be flooded and the effects on the area will be permanent and irreversible. As this is considered to be a site of some heritage significance at a local level, and there is potential to obtain further information about the site through archaeological investigation and recording, it is recommended that further historical research and physical investigation and recording are carried out prior to the area being flooded, by way of mitigation.

It is also recommended that the boiler, and any other significant industrial artefacts identified during investigation and recording, are removed from the site prior to flooding and either deposited in a local museum or installed with interpretation at an appropriate location near the reservoir and dam. This could be associated with the existing Yeoman's Track.

The desktop assessment of the water distribution network, Zones A-D, did not identify any known archaeological sites that would be directly affected by the proposed works. However, it is recommended that the headrace canal is surveyed in the field prior to commencement of earthworks for the finalised route as a precaution in case any unrecorded sites are present.

Archaeological sites have been recorded within Zone M along the Tukituki River. Across the majority of the Zone, archaeological sites are unlikely to be affected but field survey relating to any specific network design is recommended particularly in the northern part of the Zone.

The possibility that unrecorded archaeological sites might be exposed during the proposed works should be provided for through the development of accidental discovery protocols. Obtaining an Authority for the Scheme under the NZ Historic Places Act (see below) is also recommended to minimise any possible delays relating to unrecorded sites being discovered.

Continued on next page

DISCUSSION AND CONCLUSIONS, CONTINUED

Resource Management Act 1991

Section 6 of the RMA 1991 recognises as matters of national importance: *‘the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga’* (S6(e)); and *‘the protection of historic heritage from inappropriate subdivision, use, and development’* (S6(f)).

All persons exercising functions and powers under the RMA are required under Section 6 to recognise and provide for these matters of national importance when *‘managing the use, development and protection of natural and physical resources’*.

Historic heritage is defined (S2) as *‘those natural and physical resources that contribute to an understanding and appreciation of New Zealand’s history and cultures, deriving from any of the following qualities: (i) archaeological; (ii) architectural; (iii) cultural; (iv) historic; (v) scientific; (vi) technological’*.

Historic heritage includes: *‘(i) historic sites, structures, places, and areas; (ii) archaeological sites; (iii) sites of significance to Maori, including wahi tapu; (iv) surroundings associated with the natural and physical resources’*.

The Scheme will have no effects on any known pre-1900 archaeological sites (subject to the recommended archaeological survey within Zone M), but will affect a historic heritage site with early 20th century archaeological values (it should be noted that the RMA does not define an archaeological site in terms of its date). As the site is not considered to be of high heritage significance, based on current knowledge, the overall effects of the Scheme on historic heritage are not considered to be significant.

However, if resource consent is granted the loss of this local heritage site should be appropriately mitigated, and it is recommended that consent conditions are attached requiring:

- that the mill site is investigated and recorded by an archaeologist in greater detail prior to flooding;
- that a report on the history of the mill (based on oral and archival sources) and the investigation results is prepared and deposited in the local museum and library, and NZ Historic Places Trust (NZHPT) library;
- that an interpretation plan is prepared and interpretive signage detailing the location and history of the mill is installed in a suitable location (or locations) near the dam and reservoir that is accessible to the public; and
- that the boiler and any other significant industrial remains identified on the site are removed prior to flooding and deposited in a local museum, or installed on higher ground in a location accessible to the public as part of the interpretation of the site.

Continued on next page

DISCUSSION AND CONCLUSIONS, CONTINUED

Resource Management Act, *continued*

A condition requiring the preparation of comprehensive Accidental Discovery Protocols in consultation with the NZHPT and tangata whenua is also recommended. These would ensure that if koiwi tangata (human remains), taonga or sub-surface archaeological evidence of Maori or early European association is uncovered during construction, work would cease in the immediate vicinity of the remains so that appropriate action can be taken.

Historic Places Act

In addition to any requirements under the RMA 1991, the HPA 1993 protects all archaeological sites whether recorded or not, and they may not be damaged or destroyed unless an Authority to modify an archaeological site has been issued by the New Zealand Historic Places Trust (NZHPT).

An archaeological site is defined by the HPA s. 2 as: *‘any place in New Zealand that – (a) Either – (i) Was associated with human activity that occurred before 1900; or (ii) Is the site of the wreck of any vessel where that wreck occurred before 1900; and (b) Is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand.’*

Authorities to modify archaeological sites can be applied for either under Section 11, in respect to a particular site or sites, or under Section 12, for all sites that may be present within a specified area. Applications made under S12 require approval by the Maori Heritage Council of the NZHPT. An application to undertake an archaeological investigation can also be made under Section 18 of the Act. The tangata whenua must be consulted regarding applications to modify, destroy or investigate archaeological sites which have Maori cultural associations.

Based on this assessment the Scheme will not affect any known archaeological sites as defined in the HPA, and the potential for unidentified sites to be exposed during construction is considered low. However, should any previously unidentified sites be exposed during earthworks for the Scheme, or should the network design in Zone M affect archaeological sites, an Authority would be required before works could proceed. To avoid any delays should this occur, consideration could be given to applying for a general authority under Section 12 of the HPA as a precaution to cover all earthworks.

Note that about 4 months should be allowed for the processing of authorities, which includes a statutory stand down period of 15 working days before an authority can be exercised.

RECOMMENDATIONS

Mitigation and Management

The following recommendations are made:

- That there should be no major constraints on the proposed dam and associated infrastructure on archaeological grounds, since no pre-1900 archaeological sites have been identified in the area affected by the RWSS except in the northern half of Zone M and the potential for unidentified pre-1900 archaeological remains is considered low.
- That because the Scheme will affect the early 20th century Gardner and Yeoman's Mill Site which is of local heritage significance, archaeological investigation and further recording of the site should be carried out prior to flooding.
- That a report on the history of the mill (based on oral and archival sources) and the results of the investigation should be prepared and deposited in the local museum and library and the NZHPT library.
- That an interpretation plan should be prepared and interpretive signage detailing the location and history of the mill should be installed in a suitable location (or locations) near the dam and reservoir that is accessible to the public. This could be associated with the Yeoman's Track.
- That the boiler and any other significant industrial remains should be removed from the site prior to flooding and deposited in a local museum or installed on higher ground nearby in a location accessible to the public as part of the interpretation of the site.
- That although the potential for archaeological remains to be exposed during construction is low, comprehensive Accidental Discovery Protocols should be developed in consultation with the NZHPT and tangata whenua. These would ensure that if koiwi tangata (human remains), taonga or sub-surface archaeological evidence is uncovered during construction, work would cease in the immediate vicinity of the remains so that appropriate action can be taken.
- That the primary headrace canal is surveyed by an archaeologist prior to earthworks as a precaution in case any unrecorded sites are present.
- That archaeological survey be undertaken in Zone M when specific design for the water distribution network is available to determine effects there.
- That if modification of an archaeological site does become necessary, an Authority to modify an archaeological site must be applied for under Section 11 of the Historic Places Act 1993 and granted prior to any further work being carried out that will affect the site. (*This is a legal requirement*).

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RECOMMENDATIONS, CONTINUED

Mitigation and Management, *continued*

- That consideration is given to obtaining a general Authority from the NZHPT prior to earthworks for the entire Scheme as a precaution to minimise delays should archaeological remains be accidentally discovered either in the area around the dam and lake, or the water distribution network.

A Workshop on a potential integrated Mitigation and Offset programme associated with the physical effects of the Scheme on the environment was held on 6 March 2012. This was attended by DOC and Iwi representatives as well as the authors of the recreation, landscape, archaeology and Terrestrial ecology reports.²⁵ The recommendations contained in this report were discussed at the workshop and HBRIC Ltd have prepared a separate report entitled 'Ruataniwha Water Storage Scheme – Integration and Mitigation and Offset Approach' (May 2013f) which should be read in conjunction with this report.

Proposed conditions of consent give effect to these recommendations by requiring the progressive implementation of the recommendations in this Report upon commencement of construction of the Scheme, and the adherence to a specific Cultural/Accidental Discovery Protocol.

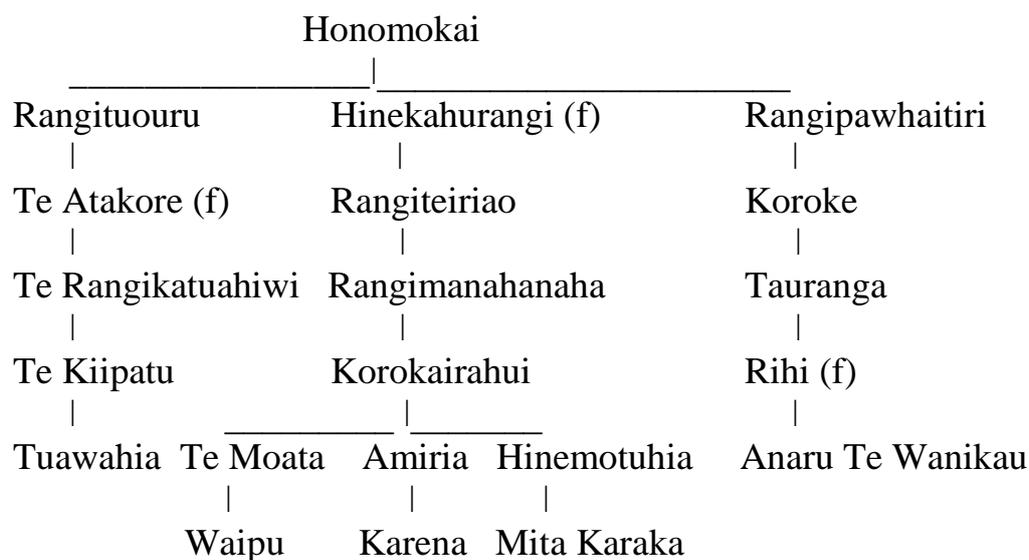
²⁵ Isthmus (May 2013), Opus (May 2013a), Kessels & Associates (May 2013)

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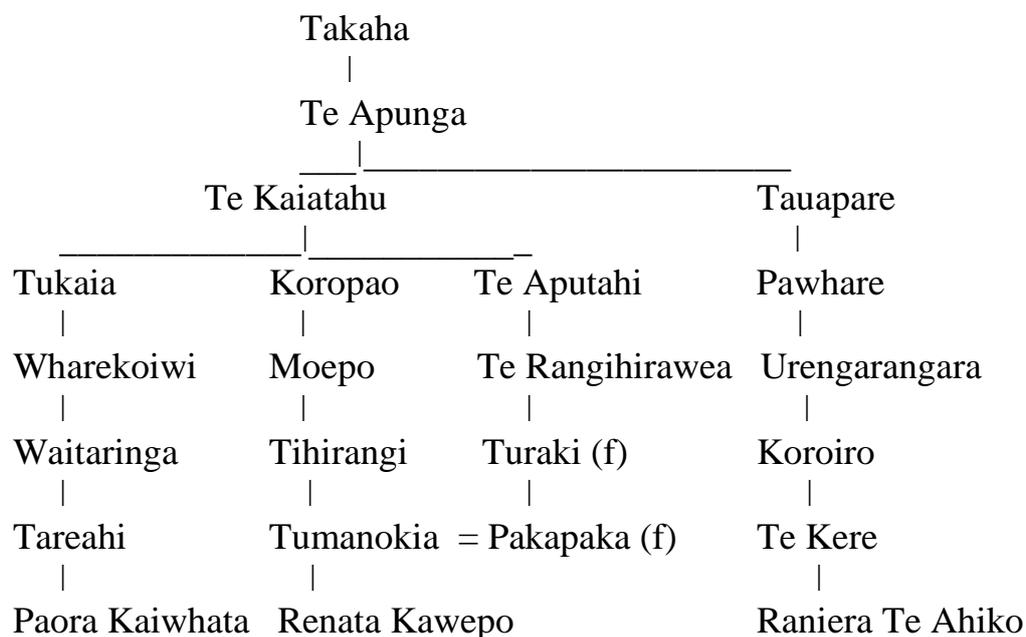
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APPENDIX A – ADDITIONAL GENEALOGICAL TREES

Genealogical descendents of Honomokai



Genealogy – Te Apunga



APPENDIX B - TITLE HB2/189

NEW ZEALAND. H.B. Vol. 2 fol. 189



Register-book,
 Vol. 4^L fol. 13
 Application No.

HAWKE'S BAY LAND DISTRICT.

LEASE IN PERPETUITY UNDER PART III. OF "THE LAND ACT, 1892."

CANCELLED

No. 210.

This Deed, made the sixteenth day of December 1898, between Her Majesty the Queen (who, with her heirs and successors, is hereinafter termed "the Lessor"), of the one part, and EDWIN TURPKY of Wakarara in the Land District of Hawke's Bay in the Colony of New Zealand (hereinafter, with his executors, administrators, and permitted assigns, referred to as and included in the term "the Lessee"), of the other part, Witnesseth that, in consideration of the rent hereinafter reserved, and of the covenants, conditions, and agreements herein contained and implied and on the part of the Lessee to be paid, observed, and performed, the Lessor doth hereby demise and lease unto the Lessee all that piece or parcel of land, containing by admeasurement FOUR HUNDRED AND NINETEEN acres roads and perches, a little more or less, situated in the Land District of Hawke's Bay aforesaid, and being Section numbered Eight (8) Block Nine (IX) Survey Districts of Wakarara as the same is more particularly delineated and described in the plan drawn hereon, and therein coloured red in outline; together with the rights, easements, and appurtenances to the same belonging: To hold the said several premises intended to be hereby demise unto the Lessee for the term of nine hundred and ninety-nine years, commencing from the 1st day of January 1892 following and paying therefor unto the Receiver of Land Revenue for the said District of Hawke's Bay the annual rent of Sixteen pounds fifteen shillings and two pence (£16 : 15 : 2), payable half-yearly in advance on the 1st day of January and 1st day of July in each and every year during the said term, free from all deductions whatsoever.

And it is hereby declared and agreed that these presents are intended to take effect as a Lease in Perpetuity under Part III. of "The Land Act, 1892"; and the provisions of that statute applicable to such leases, so far as the same apply to the term, estate, or interest hereby granted or created, and to the relations between the Lessor and Lessee from time to time, shall be binding in all respects upon the parties hereto in the same manner as if such provisions had been fully set out in them.

And it is hereby further declared that if any dispute or disagreement shall arise between the parties hereto touching the construction of these presents, or in anywise relating hereto, such dispute or disagreement shall be referred to arbitration in the manner set forth in section 79 of the said Act; and neither of the said parties shall take or cause to be taken any steps or proceedings to set aside or call in question any award or decision which may have been given upon any such reference as final.

In Witness whereof the Commissioner of Crown Lands for the Land District of Hawke's Bay on behalf of the Lessor, hath hereunto set his hand, and these presents have also been executed by the said Lessee.



Wakarara S.D.

River

IX

8

419-0-0

9

ROADS

METRIC AREA IS 169.5632 ha

Scale: 20 chains to an inch. 164.2700 ha

Signed by the said Commissioner, on behalf of the said Lessor, in the presence of—

Signature of Witness: J.R. JOURDAIN

Address: Napier
 Occupation: Clerk, Land Office

Signed by the above-named EDWIN TURPKY as Lessee, in the presence of—

Signature of Witness: R.J. DODD,
 Address: Wakarara
 Occupation: Postmaster.

Signature of Lessee: EDWIN TURPKY.

ERIC C. GOLD SMITH
 Commissioner of Crown Lands.

OVER

Continued on next page

APPENDIX B - TITLE HB2/189, CONTINUED

2/189

6229 Mortgage Edwin Turfrey to The Government Advances to Settlers Office Superintendent produced 20th June 1899 at 11.27 a.m. **DISCHARGED**
 THOS. HALL D.L.R. R.M. RIDGILL Asst. Ld. Regr.

10179 Mortgage Edwin Turfrey to The Government Advances to Settlers Office Superintendent produced 30th September 1899 at 11.9 a.m. **DISCHARGED**
 THOS. HALL D.L.R.

11377 Mortgage Edwin Turfrey to The Government Advances to Settlers Office Superintendent produced 27th March 1902 at 2.13 p.m. **DISCHARGED**
 THOS. HALL D.L.R.

17624 Mortgage (Progress of Mortgage No. 175) produced 14th January 1910 at 10 a.m. **DISCHARGED**
 L. PAULING D.L.R.

41555 Mortgage Edwin Turfrey to The Manager of New South Wales produced 31st July 1926 at 10.27 a.m. **DISCHARGED**
 R.F. BAIRD D.L.R. ASST. Ld. REG.

17867 Transmission to Maggie Turfrey of Wakarara Widow and Ernest Edwin Turfrey of Waikohu Labourer as Executors produced 30th June 1930 at 11.48 a.m. **DISCHARGED**
 R.F. BAIRD D.L.R.

48159 Mortgage Maggie Turfrey and Ernest Edwin Turfrey to The State Advances Corporation produced 30th June 1930 at 11.50 a.m. **DISCHARGED**
 R.F. BAIRD D.L.R.

I HEREBY CERTIFY this to be a true copy of the outstanding duplicate.
 DATED this 19th day of May 1931.
 District Land Registrar of the District of Hawkes Bay.

Pursuant to Section 21 of the Land Transfer Act, 1925, mortgage 48155 is hereby discharged.
 August 1939.

Transfer 69157 Maggie Turfrey and Ernest Edwin Turfrey to Maggie Turfrey aforesaid and Robert David Yeoman of Makariri Contractor produced 27th October 1939 at 11.55 a.m. **DISCHARGED**

Transmission 92154 to Robert David Yeoman now of Waikarara Contractor as Surviving partner 7-7-1950 at 11.58 a.m. **DISCHARGED**

Transfer 95756 Robert David Yeoman to Gladys Mabel Yeoman of Wakarara, Married Woman, produced 5-9-1951 at 10.30 a.m. Litters 12: 2: 1951. **DISCHARGED**

Electricity Agreement 99555 under the Electricity Amendment Act 1948 produced 14-9-1951 at 10 a.m. **DISCHARGED**

Caveat 120221 by the Waikohu Bay Farmers Corporation variations under Certificate 27-1-1955 at 2.15 p.m. **DISCHARGED**

X Caveat 153716 by the Waikohu Bay Farmers Corporation variations under Certificate 27-1-1955 at 2.15 p.m. **DISCHARGED**

Mortgage 197928 to The Colonial Mutual Life Assurance Society Limited - 7-7-1965 at 11.22 a.m. (Caveator consent filed with caveat 153716) **DISCHARGED**

Mortgage 197929 to The Colonial Mutual Life Assurance Society Limited - 7-7-1965 at 11.26 a.m. (Caveator consent filed with caveat 153716) **DISCHARGED**

Variation of Mortgage 197928 - 19-11-1971 at 10.1 am (Caveator consent filed with caveat 153716) **DISCHARGED**

Variation of Mortgage 197929 - 19-11-1971 at 10.2 am (Caveator consent filed with caveat 153716) **DISCHARGED**

THIS CERTIFICATION ON A REDUCED SCALE IS CERTIFIED TO BE A TRUE COPY OF THE ORIGINAL REGISTERED FOR THE PURPOSES OF SECTION 21 OF THE LAND TRANSFER ACT 1925.
 B. B. McLaughlin D.L.R.

Transfer 265975 to Latham Woolcott Stubbs of Waipawa Solicitor and Paul Gwynn Edwards of Waipukurau Accountant - 5.5.1972 at 10.55 a.m. (Caveator under Caveat 153716 consenting). **DISCHARGED**

Mortgage 265976 to The State Advances Corporation - 5.5.1972 at 10.56 a.m. (Caveator under Caveat 153716 consenting). **DISCHARGED**

Mortgage 265977 Gladys Mabel Yeoman - 5.5.1972 at 10.57 a.m. (Caveator under caveat 153716 consenting). **DISCHARGED**

Variation Mortgage 265977 - 15.5.1972 at 10.58 a.m. (Caveator under Caveat 153716 consenting). **DISCHARGED**

Variation Mortgage 265977 - 15.12.1972 at 12 noon (caveator under Caveat 153716 consenting). **DISCHARGED**

Variation Mortgage 265977-20.11.1973 at 9.25 a.m. (caveator under caveat 153716 consenting). **DISCHARGED**

Continued on next page

APPENDIX B – TITLE HB2/189, CONTINUED

2/189

307792.1 Variation of Mortgage 265977 - 8.11.1974 at 10.23 a.m. (Caveator under Caveat 153716 consenting)

DISCHARGED

[Handwritten signature]
A.L.R.

337190.1 Transmission to Paul Gwynn Edwards of Waipukurau, Accountant as Survivor entered 4.4.1977 at 9.19a.m. (Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

337190.2 Transfer to Paul Gwynn Edwards abovenamed and William Hugh Bennett of Waipawa, Chartered Accountant - 4.4.1977 at 9.19a.m. (Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

344071.1 Variation of Mortgage 197928 - 7.10.1977 at 9.52a.m. (Mortgagees under Mortgages 265976 and 265977 consenting).

From
Mortgage
Registration
13/10/77

[Handwritten signature]
A.L.R.

344071.2 Variation of Mortgage 197929 - 7.10.1977 at 9.35a.m. (Mortgagees under Mortgages 265976 and 265977 consenting).

From
Mortgage
Registration
13/10/77

[Handwritten signature]
A.L.R.

348245.1 Variation of Mortgage 197928 - 21.2.1978 at 9.26 a.m. (Mortgagees under Mortgages 265976 and 265977 and Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

348245.2 Variation of Mortgage 197929 - 21.2.1978 at 9.27a.m. (Mortgagees under Mortgages 265976 and 265977 and Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

369423.1 Variation of Mortgage 197929 - 7.9.1979 at 9.38 a.m. (Mortgagees under Mortgages 265976 and 265977 and Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

369423.2 Variation of Mortgage 197928 - 7.9.1979 at 9.39 a.m. (Mortgagees under Mortgages 265976 and 265977 and Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

369423.3 Transmission of Mortgage 265976 to The Rural Banking and Finance Corporation - 7.9.1979 at 9.39 a.m.

[Handwritten signature]
A.L.R.

369423.4 Variation of Mortgage 265976 - 7.9.1979 at 9.39 a.m. (Mortgagee under Mortgage 265977 and Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

369423.5 Mortgage to The Rural Banking and Finance Corporation - 7.9.1979 at 9.39 a.m. (Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

369423.6 Mortgage to The Rural Banking and Finance Corporation - 7.9.1979 at 9.40 a.m. (Caveator under Caveat 153716 consenting).

DISCHARGED
4.2.1980
11.5.1980

[Handwritten signature]
A.L.R.

369423.7 Memorandum of Priority making Mortgage 369423.5 a fourth Mortgage, Mortgage 369423.6 a fifth Mortgage and Mortgage 265977 a sixth Mortgage - 7.9.1979 at 9.42 a.m. (Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

399010.1 Variation of Mortgage 265976 - 21.10.1981 at 11.15 am. (Mortgagee under Mortgage 265977 consenting).

[Handwritten signature]
A.L.R.

412631.2 Variation of Mortgage 265976 - 4.10.1982 at 10.10a.m. (Caveator under Caveat 153716 consenting).

[Handwritten signature]
A.L.R.

446383.1 Certificate of Alteration whereby the area of the within land is now 164.2700 hectares - 29.3.1985 at 10.24a.m.

[Handwritten signature]
A.L.R.

446383.3 Deferred Payment Licence issued for within land Cancelled and C.T.L1/165 issued - 29.3.1985 at 10.24a.m.

[Handwritten signature]
A.L.R.

CANCELLED

Duplicate Destroyed



Continued on next page

APPENDIX B – TITLE HB2/189, CONTINUED

No. 210 **2/189**
 DATED 16 December 1900. 1898.

HER
 1916 Majesty the QUEEN
 TO

EDWIN TURFERY

Hawke's Bay Land District.

LEASE 2157

Of Section 8, Block IX

TAKARARA Survey District.

Under "The Land Act, 1892."

Nine hundred and ninety-nine years from
 1st January, 1901.

Entered at 10 o'clock on the 25th day
 of July, 1901.

THOS. HALL (L.S.)
 District Land Registrar

SECTIONS 141 TO 147 OF "THE LAND ACT, 1892."

Cowpenny Residence.

141. Residence on any land, not being land purchased for cash, selected under this Part of this Act shall be compulsory, and shall commence in bush-land or on swamp-land within three years, and in open or partly open land within one year, from the date of selection; and thereafter such residence shall be continuous.

1. (1) The land occupied shall not exceed one acre in open or partly open land or one acre in bush-land or swamp-land.
2. (2) The land occupied shall not exceed one acre in open or partly open land.

But these conditions of residence shall not apply to any person who has acquired an interest in any lease or license under an intestacy or by virtue of a will.

142. The Board may dispense with residence if the lessee or licensee reside and continue to reside on lands contiguous to the lands held under lease or license. Lands shall be deemed to be contiguous to each other if only separated by a road or stream, or by such interval of space as the Board may determine in each case.

The Board may also dispense with residence for four years after the commencement of the term where residence is otherwise compulsory in cases where the lessee or licensee are youths or unmarried women living within the land district, and residing with their parents or near relatives.

In case of the death of either or both parents of a child or children, residence may be dispensed with until such child or one of such children respectively attain the age of seventeen years.

143. Personal residence may also be dispensed with by the Board in the cases hereinafter mentioned:—

- (1) Whenever any two persons, being lessees with right of purchase or leases in perpetuity, have lawfully intermarried at some period not sooner than twelve months after the issue of the list of such lessees or leases, such persons may reside on such one of the selections of land made by them as they may think fit.
- (2) Whenever any two persons, one of whom has become a selector of land with right of purchase or a lease in perpetuity, and the other is an owner or selector of freehold land, have lawfully intermarried at some period not sooner than twelve months from the issue of the lease or lease held by such selector, such selector may reside on such freehold.
- (3) Residence on such selection or on such freehold, as may be the case, shall be deemed a compliance with the conditions of section one hundred and forty-one in respect of residence by such several persons.
- (4) The Board, however, shall have a discretionary power to dispense with personal residence on selections and satisfactory grounds being shown for non-residence.

Improvements.

144. Every selector of land under this Part of this Act, whether for occupation with right of purchase or for lease in perpetuity, shall put on the land comprised in his lease or lease, as the case may be, substantial improvements:—

- (1) Within one year from the date of his lease or lease, to a value equal to the value of one acre of the area of the land.
- (2) Within three years from the date of his lease or lease, to a value equal to the value of two acres of the area of the land.
- (3) And thereafter, but within six years from the date of his lease or lease, to a value equal to another ten per centum of the area of the land.

And in addition thereto shall, within six years from the date of his lease or lease, put substantial improvements of a permanent character on first-class land to the value of one pound for every acre of such land, and on second-class land to an amount equal to the net price of every acre of such land. Provided that in no case shall the additional improvements required on second-class land be more than ten shillings per acre.

And every selector shall be bound at any time when so required by the Board to make and sign a statutory declaration as to his fulfilment of the conditions of occupation and improvement of the land in his occupation up to the time of making the said declaration.

145. Any holder of bush-land or swamp-land, on deferred payments under section one hundred and fourteen of "The Land Act, 1892," or in any special certificate under regulations made before the twentieth day of February, one thousand eight hundred and one, under Part X. of such Act, and any holder of a perpetual lease of any land under section one hundred and forty-eight of such Act, shall be deemed to have complied with the requirements of section two-hundred of "The Land Act Amendment Act, 1897," if within six years from the date of his lease or lease he has brought or shall bring into cultivation twice the amount of land required by the herein first above-mentioned sections or regulations respectively, and in addition thereto has put or shall put substantial improvements of a permanent character on the land in his occupation to the value of one pound for every acre of such land.

146. In the case of suburban lands the Board in its discretion may dispense with conditions as to improvements of special monetary value, where such substantial improvements have been effected as in the opinion of the Board are reasonable in the circumstances.

147. The Board, on compliance with the provisions of section eighty-three, or on their being satisfied by a statutory declaration that the transferee is unable or not in a position to make the improvements on the land required by this Act, may sanction a transfer, either by way of mortgage or otherwise, of land other than cash land, or of any interest in such land, held under this Part of this Act, at any time after the first selection thereof, to any person not disqualified who shall make the declaration under the particular system under which the land is held, as given in the Schedule to this Act.