



REPORT

DESK-BASED ARCHAEOLOGICAL ASSESSMENT OF
THE PROPOSED WAIROA FLOODWAY, WAIROA



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Desk-based Archaeological Assessment of Proposed Wairoa Floodway, Wairoa

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1. Introduction

As a result of recent extreme weather events, a tripartite agreement between Tātau Tātau o te Wairoa Trust, Wairoa District Council and Hawkes Bay Regional Council has been formed to carry out a flood mitigation project near Wairoa township (Figure 1).

WSP is leading the design phase of the project. The current design will involve the construction of a floodway consisting of two stopbanks to control overflow. The floodway between the two stopbanks will be formed by excavating the current ground surface between approximately 0.3 and 1.5m. The design also includes a townside stopbank, which runs for approximately 1.1km upstream of the State Highway 2 Bridge on the true right of the Wairoa River (Figure 2).

This area of Wairoa has a small number of recorded archaeological sites, but the landscape context of the project and proximity to areas of known Māori and historical occupation mean there is significant potential for unrecorded archaeological sites. As such, InSitu Heritage was commissioned by WSP to carry out a high-level desk-based review of the project area to determine the extent of any archaeological sites and assess the impact of the planned works on any such site(s).

The report is concerned with physical evidence of past human activity; advice about Māori cultural values can only be appropriately obtained from iwi/hapū representatives.

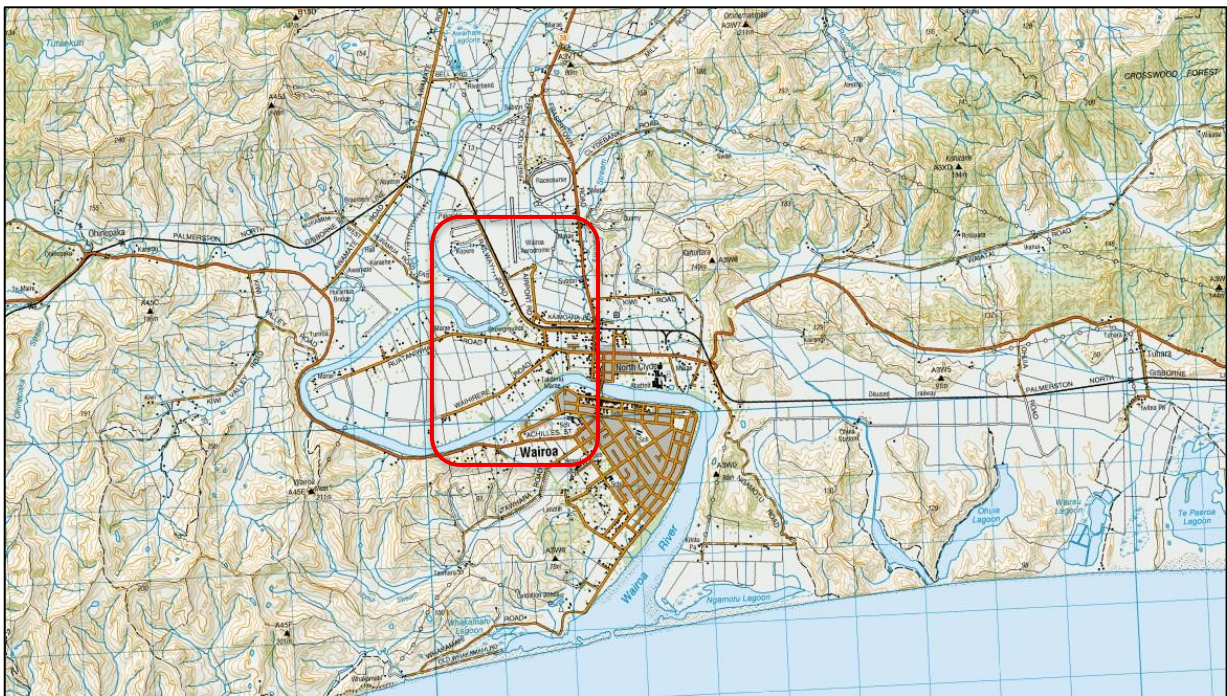


Figure 1 – Location of the project area (red polygon), Wairoa. Source: LINZ.

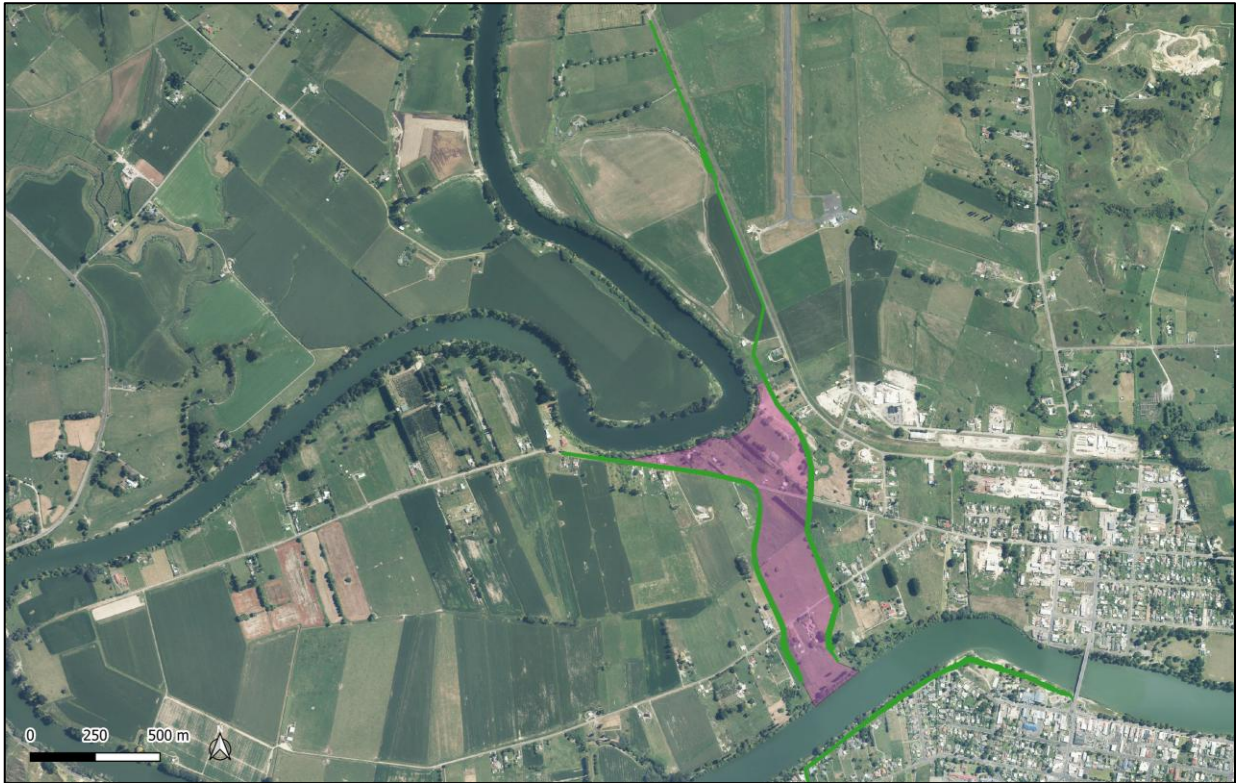


Figure 2 – Overall plan of the proposed Wairoa Floodway project. Green lines are the stopbanks, pink polygon is the proposed floodway (adapted from plan supplied by WSP).

2. Statutory requirements

Heritage New Zealand administers the Heritage New Zealand Pouhere Taonga Act 2014. The Act makes it unlawful for any person to modify or destroy, or cause to be modified or destroyed, the whole or any part of an archaeological site without the prior authority of Heritage New Zealand. Any work that may affect an archaeological site requires an authority from Heritage New Zealand before commencement.

This process applies regardless of whether the land on which the site is located is designated, or the activity is permitted under the District or Regional Plan or a resource or building consent has been granted. The Act provides for substantial penalties for unauthorised destruction or modification.

An archaeological site is defined in the Heritage New Zealand Pouhere Taonga Act 2014 as any place in New Zealand (including buildings, structures, or shipwrecks) that was associated with pre-1900 human activity, where there is evidence relating to the history of New Zealand that can be investigated using archaeological methods.

The archaeological authority process applies to all sites that fit the legal definition, regardless of whether:

- The site is recorded in the NZ Archaeological Association Site Recording Scheme (ArchSite) or recorded on the New Zealand Heritage List

- The site is not recorded and only becomes obvious because of ground disturbance.
- The activity is permitted under a district or regional plan, or a resource, or building consent has been granted.

The Severe Weather Emergency Recovery Act (2023) allows changes to legislation to assist communities and local authorities to continue their recovery from recent severe weather events. This is achieved through the issuing of secondary legislation called an Order in Council (OIC).

Severe Weather Emergency Recovery (Hawke's Bay Flood Protection Works) Order (2024) has been made to enable the flood protection works required for recovery in the Hawkes Bay Region. The Order in Council establishes activity and work statuses, and key roles and groups with responsibilities for works that may affect heritage places during the flood protection works.

3. Methodology

Desk-based archaeological assessment involved analysis of ArchSite (New Zealand Archaeological Association Site Recording Scheme) to understand known site distribution in the region around the project area. Historic aerial photographs (Retrolens), together with historic maps (Premise) and LiDAR models (LINZ), were examined to identify the extent of known sites and to determine the presence or absence of unrecorded archaeological features on the property. Relevant previous archaeological reports and other documentary sources were also consulted.

4. Background

4.1 Physical Setting

The floodway section of the project is planned in the narrow neck of a bend in the Wairoa River; the townside stopbank is planned across the river from the floodway, northwest of the Wairoa township. Both areas are located on the Wairoa River floodplain, which consists of recent alluvial and pumice soils (S-MAP). These soils are like those found next to the Waipaoa River, Gisborne, which are closely associated with areas of Māori cultivation.

Prior to the arrival of Māori the Wairoa area was covered in lowland podocarp-hardwood forest, including species like Tawa (*Beilschmedia tawa*), Kamahi (*Weinmannia racemosa*), Pukatea (*Laurelia novae-zelandiae*), etc., (Wilmshurst 1995). Large-scale burn offs of coastal forest cover to establish Māori horticulture began in the early 14th century, which led to bracken (*Pteridium esculentum*) becoming the dominant vegetation type until clearance by European farmers in the 19th century (Wilmshurst 1995).

The dominant landscape feature in the area is the Wairoa River. The river and its tributaries extend well inland from the coast and would have provided important economic resources as well as critical communication and travel routes. The river mouth and the esturine / lagoon system to its east provides a rich habitat for wetland plants and animals, which would have encouraged settlement of the area by Māori.

4.2 Historical Overview

The Takitimu waka is said to have landed on the banks of the Wairoa River near present-day Takitimu Marae, just east of the floodway. Māori oral histories and the distribution of archaeological sites attests to the rich cultural landscape centred on the Wairoa River prior to European arrival. Māori settlements are recorded from the river mouth up to approximately the State Highway 2 bridge, including the notable pā of Manuka-nui and Kai-mango. Although not as dense, further pā and kāinga were present adjacent to the river between Wairoa and Frasertown. The economic base of the Māori population was the rich lagoonal, riverine and coastal resources as well as rich horticultural soils that supported the growth of kumara and, more latterly, European introduced crops.

The following historical narrative is derived from Lambert's (1925) study of Wairoa History. The earliest European settlers around Wairoa were traders, who focused on the significant flax resource in areas like the Ohuia flats. A whaling station was set up near the Wairoa Heads, which supported a small crew for a little over a decade from the late 1830s. In the 1840s the Church Missionary Society established a mission at the base of Te Uhi Hill. From 1844 the mission was administered by James Hamlin a practical man who came to be a fluent Te Reo speaker. In 1864 the land on which the township of Wairoa is located was purchased and the town (then named Clyde) surveyed. Prior to this the occupants of Wairoa were 'squatters' and the buildings were laid out haphazardly. In 1865, due to the ongoing land wars several redoubts were established in Wairoa. Land confiscations opened the way for further European settlement in the district, which took the form of pastoral farming and related agricultural ventures.

4.3. Previous Archaeological Work

The major piece of archaeological work conducted in the area was a site survey undertaken by David Nevin (1988). Nevin recorded most sites around Wairoa, including those inside the project area (see below). The majority of recorded sites in the area are Māori in origin, with a strong trend for sites to be on high ground near the river. Although historical accounts suggest the river flats were utilized extensively, undefended settlements and gardens tend to have limited surface expression and are likely to be unrecorded. Sites relating to European occupation, for example redoubts, are present in small numbers.

There have been limited archaeological investigations around Wairoa and none in the project area.

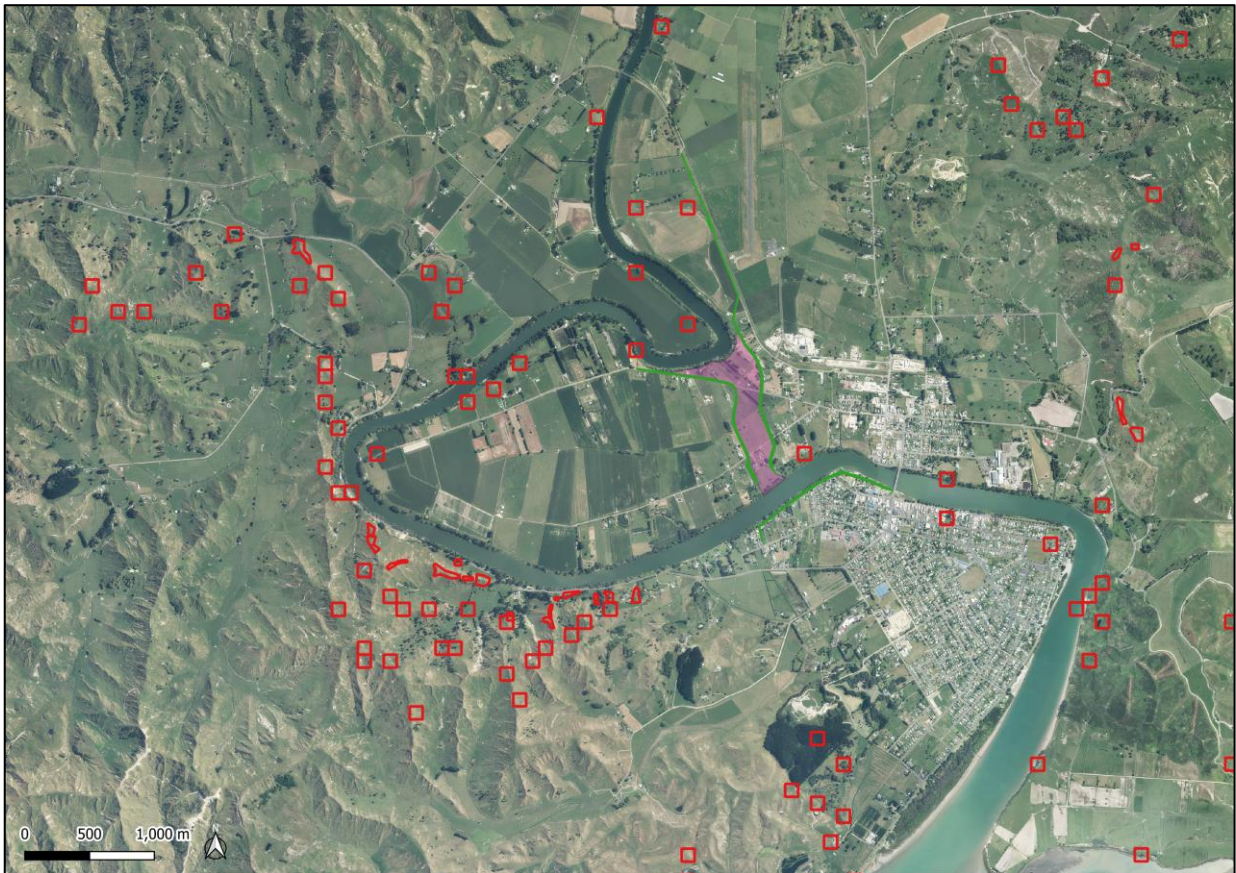


Figure 3 – Distribution of recorded archaeological sites (red polygon) in the Wairoa area. Source: LINZ & ArchSite.

5. Results

Recorded Archaeological Sites

There are no recorded archaeological sites in the planned footprint of the floodway, although six are in close proximity to planned works (Figure 4).

X19/209 is recorded as an open rectangular pit (6 x 3m) with several other smaller pits in close association.

X19/210 consists of an area of dark topsoil and associated gravels on the upper river terrace. This site may be a Māori horticultural soil, and the extent is unclear. There is some possibility the site extends into the footprint of the proposed stopbank.

X19/35 is Matiti pā, which is recorded as a fighting pā. Much of the features were unclear at the time of recording but are clearly visible in earlier aerial photography.

X19/204 is Ruataniwhā pā and the present location of Ruataniwhā marae and urupā.

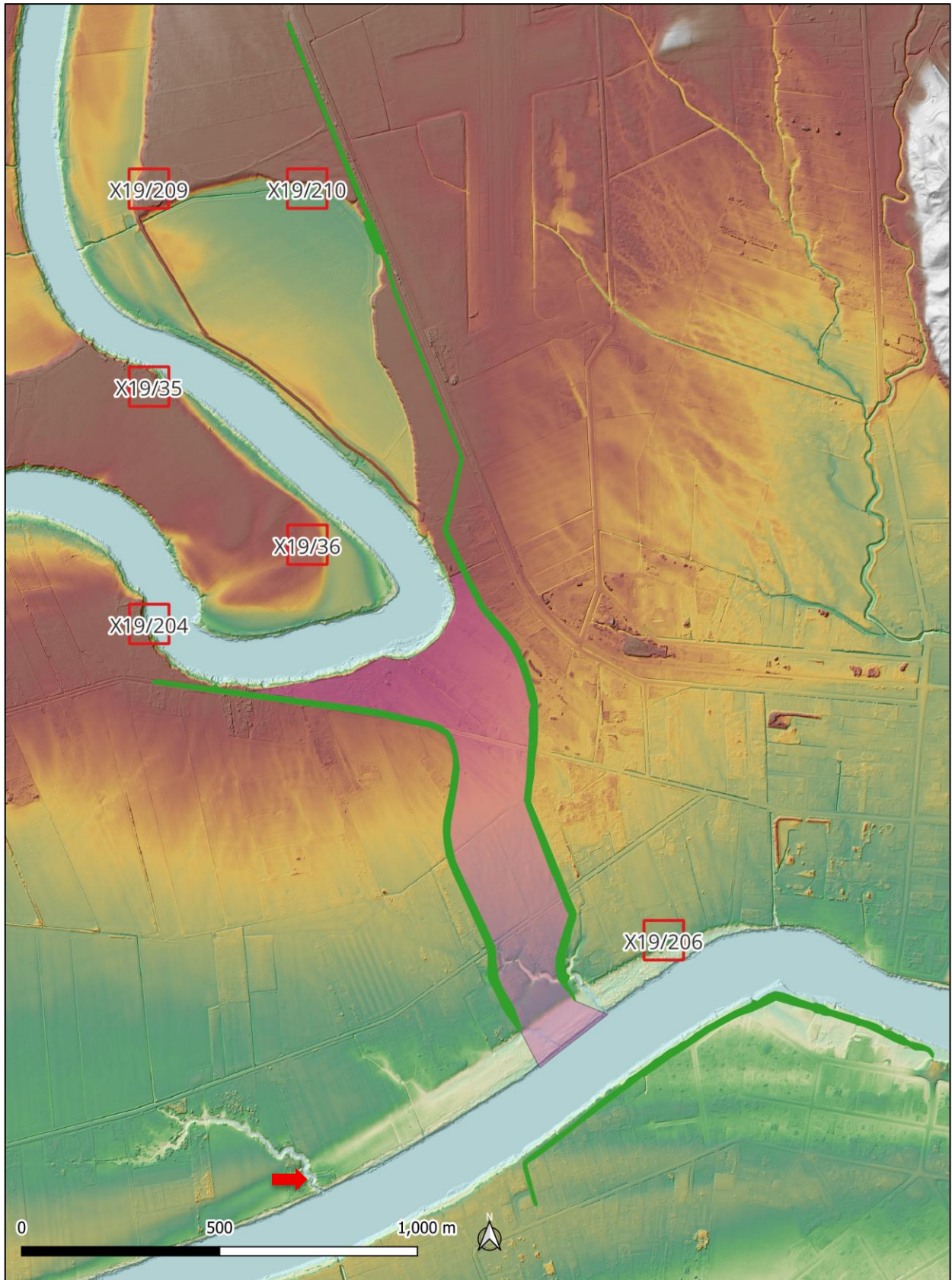


Figure 4 – Digital elevation model with the project area overlaid. Recorded archaeological sites near the project areas are shown (red polygons) and a potential unrecorded site is indicated by the red arrow. Source: LINZ & ArchSite.

Recorded archaeological sites in the

X19/36 is recorded as a midden site by Nevin, although this designation does not accurately capture the nature of the site. Nevin notes the presence of several areas of black soil (up to 30 x 20m) and well as gravels that suggest the area has been cultivated by Māori. Nevin's informant suggests the gardens were connected to Matiti pā (X19/35) and further gardens were present across the river near Ruataniwhā.

X19/206 is recorded as a papakāinga associated with Takitimu marae. Niven records that several adzes have been found in this general area because of tillage associated with market gardening. Moreover, a deposit of shell midden described as being several metres long was observed in a drain cutting.

Taken together, the recorded archaeological sites in and near the project area are settlements or storage sites with clear surface expression in close association with more ephemeral garden soils or midden. It is likely that further unrecorded sites associated with undefended settlement and gardening are present in the area of proposed works.

Old Maps and Survey Plans

Historic Survey plans were searched for any evidence of archaeological sites within the project area. No evidence of unrecorded archaeological sites was found on any survey plan; however, several traces of earlier settlement such as Māori names associated with areas near the proposed townside stopbank and evidence of former whare on the high ground near Ruataniwha Road were identified. Although not direct evidence of pre-1900 occupation, this is indicative of areas of former settlement.

Aerial Photography

The online aerial photograph database Retrolens (Retrolens.co.nz) was searched for historical photographs of the project area, as these can often show evidence of previously unrecorded archaeological sites and evidence of landscape change that may have impacted sites. Review of historical aerials found no evidence of previously recorded sites

LiDAR

LiDAR data was analysed to identify the presence of visible surface archaeological features within the project area and assess the landscape for suitability in terms of historic settlement / activity. Figure 4 is a LiDAR-derived digital elevation model (DEM) of the project area showing the general topography. A single unrecorded archaeological site was identified adjacent to an urupā to the west of the project area. No unrecorded sites were identified in the project area.

Current Land use

Aspects of current land use can be useful in inferring from the past. One of the notable features of the current landscape is the presence of a large number of urupā in close proximity to the Wairoa River. This includes three urupā within approximately 500m of the planned works. The extent of current urupā can represent a formalisation of a burial ground in an area long used for interment, which can mean kōiwi tangata are located outside the current boundaries. The closest urupā to the project area is associated with Takitimu marae. The presence of a stream in the west of the lot boundary of the urupā, forms a natural landscape barrier that may have reduced the chances that burials extended west into the project area.

6. Archaeological value & assessment of effects

6.1 Assessment of archaeological value

Archaeological values relate to the potential of a place to provide evidence of the history of New Zealand (Gumbley 1995). This potential is framed within the existing body of archaeological knowledge, and current research themes and questions relating to understanding New Zealand's past (Walton 2002).

Given the absence of visible archaeological features on the properties, a detailed evaluation of values cannot be carried out. However, based on desk-based research, there is reasonable cause to suspect features/deposits associated with pre-1900 human activity to be present in the project area.

Recorded sites X19/206, X19/210 and X19/36 are made up fully or in part by ephemeral features that are only visible on the surface because of activities like ploughing. The true extent of these sites is not known and there is reason to believe that further sites of their sort are present in the floodway area and in the northern extent of the eastern floodway stopbank. No sites are currently located in the footprint of the townside stopbank, but historical occupation is known to have occurred nearby.

The values associated with any currently unrecorded site would be high. In particular, the information potential of any such site would be great, given the absence of previous archaeological investigation in the Wairoa.

6.2 Assessment of effects

In the absence of clear archaeological features in the project area, an accurate assessment of effects is not possible. However, were archaeological features such as gardens, kāinga and historical occupation to be present in the project area it is highly likely that these would be destroyed or partially destroyed by the proposed works.

The following recommendations are made to avoid, remedy, or mitigate adverse effects on archaeological values.

7. Recommendations

- The proposed work plan will result in clearance of the floodway, the establishment of new stopbanks and cuts within the floodway of between 0.3 and 1.5m. These activities will result in a considerable amount of ground disturbance. Although no **recorded** sites are in the footprint of the proposed works there is a reasonable cause to suspect that sub-surface archaeological material relating to pre-1900 Māori and European activity may be encountered during earthworks.
- More detailed archaeological assessment, including field survey carried out in association with iwi / hapū representatives, is required once the design of the project has firmed. This further work will assist to more precisely assess the effects of the project and determine if an archaeological authority from Heritage New Zealand Pouhere Taonga is the appropriate mitigation measure.
- Once this work is complete it is recommended that a pre-application meeting is held with Heritage New Zealand Pouhere Taonga to brief them on the scope and nature of the project.

8. References

Gumbley, W. 1995. Guidelines for the provision of archaeological information and assessment for authority applications under section 11 or 12 of the Historic Places Act 1993. *Archaeology in New Zealand* 38(2): 100-105.

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