Te Arata Flood Resilience Works – Walmsley Road Bridge Replacement: Archaeological Assessment

Prepared for Auckland Council Healthy Waters



October 2024

Prepared by

Charlotte Judge (MA Hons)
Phoebe Mohns (BA)



Contents

Introduction	1
Project Background	1
Project Overview	1
Earthworks Detail	2
Assessment Methodology	2
Constraints and Limitations	3
Background Research	7
Historical Background	7
Early Māori Settlement	7
19 th and 20 th Century History	8
Additional Historic Survey Plans and Aerial Photographs	9
Archaeological Background	13
Previous Works	13
Archaeological Landscape of the Project Area	13
Results of Field Survey	15
Discussion and Conclusions	20
Summary	20
Archaeological Values and Effects of Proposed Works	20
Legislation and Policy	20
Conclusions	22
Recommendations	22
Bibliography	24

Introduction

Origin Archaeology has been engaged by Auckland Council's Healthy Waters department (Healthy Waters) to undertake an archaeological assessment for the proposed Te Ararata Walmsley Road bridge replacement works (the Project). The Project is flood resilience works, with this assessment prepared to support a resource consent application under the Severe Weather Emergency Recovery (Auckland Flood Resilience Works) Order 2024, and to identify any requirements under the Heritage NZ Pouhere Taonga Act 2014.

This report assesses the potential construction and operational effects of the Project on archaeological values based on an indicative construction methodology and concept design developed to support the resource consent application.

A reasonable worst case and effects envelope has been assumed within this assessment to account for potential changes to activities and programme. Minor changes to the final methodology and detailed design are unlikely to change the overall envelope of effects as presented in this report.

Project Background

The January 2023 floods, followed closely by Cyclone Gabrielle, marked a period of unprecedented weather challenges for Auckland. The floods, and the subsequent cyclone caused significant infrastructural damage, with an estimated 8,000 homes destroyed or damaged and thousands of residents' lives affected. The events underscored the city's vulnerability to extreme weather, prompting Auckland Council to endorse the "Making Space for Water Programme" developed by Healthy Waters. This initiative aims to mitigate flood risks through a series of blue-green networks, addressing critical flood-prone areas with sustainable stormwater solutions.

As part of the overall Programme, Healthy Waters identified a combination of interventions within the Te Ararata catchment (overall referred to as the Te Ararata Project) to collectively address the flood resilience issues further outlined in the Assessment of Effects on the Environment (AEE).

Project Overview

The first package of works within the overall Te Ararata Project is for the Walmsley Road bridge replacement works (i.e. the Project) and is the subject of this assessment. The Project seeks to achieve greater flow capacity and reduce blockage risk beneath Walmsley Road and within Te Ararata Creek.

A detailed description of the proposed work and indicative methodology is provided in the AEE prepared for this application. The Project is located within the existing Walmsley Road bridge, Te Ararata Creek, Black Bridge Reserve and Walmsley Road Reserve (Figure 1-4). Overall construction of the Project is anticipated to take approximately 10-12 months, with closure of the existing Walmsley Road bridge required for approximately 7 months during this period.

In summary, the Project includes the following key elements:

- Demolition and removal of the existing Walmsley Road twin culvert;
- Construction of a new replacement Walmsley Road bridge over Te Ararata Creek;
- Works to tie in the new replacement bridge with the existing road network;
- Recontouring of the stream banks under the bridge to achieve a wider stream channel;
- Relocation of the existing Watercare watermain pipe bridge foundations to achieve a wider clearance beneath the structure:
- Existing service relocation and/or realignment;
- Vegetation clearance, including within riparian margins and the removal of trees;
- Earthworks associated with temporary and permanent works, including within the riparian margins;
- Other temporary works and activities to facilitate the construction of the permanent Project including:
 - The formation and operation of laydown areas and a site compound predominantly within Black Bridge Reserve.
 - Works within and around Te Ararata Creek including temporary stream diversion, and
 - Temporary traffic management measure including a temporary bailey bridge to facilitate pedestrian and active mode diversions between Coronation Road and Walmsley Road. Vehicular traffic will be diverted to the wider existing road network.

Earthworks Detail

The proposed extent of the project area is shown on Figure 3, while the required area of cut and fill is shown on Figure 4.

Earthworks for the permanent structures will be required over an approximate area of 820m² with a maximum required depth of cut to c.6m below the existing ground level for the construction of concrete bridge abutments and wingwalls.

Earthworks for the temporary work areas will be required over a total area of c.1970m². The proposed site access and laydown areas will require earthworks over an area of c.1500m² to a maximum depth of c.0.5m. The installation of the proposed temporary Bailey Bridge will require earthworks over an area of c.170m² on the eastern side to a depth of up to c.2m and c.100m² on the western side to a depth of up to c.1.5m. The approach pathways to the Bailey Bridge will require earthworks over an area of c.50m² on the eastern side to a depth of c.0.3m and 150m² on the western side also to a depth of up to c.0.3m.¹

Assessment Methodology

As part of the preparation of this report, the NZ Archaeological Association ArchSite and Auckland Council Cultural Heritage Inventory (CHI) databases were searched for information on archaeological and other historic heritage sites recorded within close proximity to the

¹ Personal communications with A. Grafia, Senior Planner, Beca (October 2024)

proposed area of works. The Auckland Unitary Plan (AUP) and the Heritage New Zealand List were consulted to determine if any sites had been scheduled or registered within or close to the proposed areas of works. Relevant archaeological assessments previously undertaken within the area were also consulted (see Bibliography). Historic survey plans held at Land Information NZ (LINZ) and historic aerial photographs were also reviewed for information on past land use.

A site inspection of the project area was undertaken on 12 July 2024. Photographs were taken to record the project area and immediate surrounds.

Constraints and Limitations

All statements and opinions in this document are offered in accordance with accepted best practice. No responsibility is taken for errors of fact or opinion resulting from data supplied by a third party.

This report has been carried out based on the information available at the time. Due to the timeframes presented, research for the report was undertaken to an extent that enables the heritage values of the proposed area of works to be adequately evaluated but is potentially not exhaustive.

This report does not represent the views of tangata whenua regarding the significance of the place to them. Cultural significance of the place to Māori can only be competently assessed by mana whenua.



Figure 1. Aerial map showing the location of the Te Ararata Walmsley Road bridge upgrade. Source: Auckland Council Geomaps 2024



Figure 2. Aerial showing the general preliminary extent of the project area (outlined). Aerial source: Auckland Council Healthy Waters



Figure 3. Te Ararata Culvert Replacement – Construction Site Layout

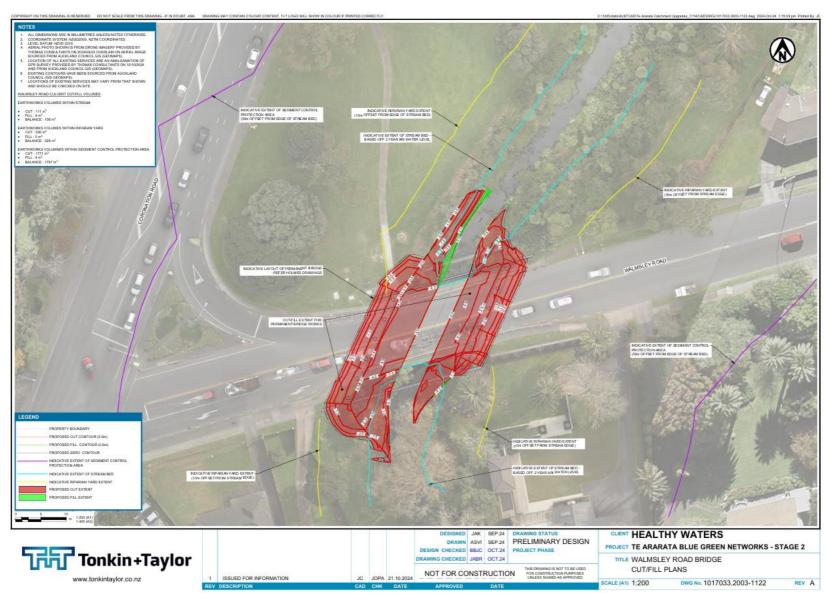


Figure 4. Walmsley Road Bridge - Cut/Fill Plans

Background Research

Historical Background

This historical background has been prepared to provide context to the surviving archaeological record and is not intended to be a detailed history of human settlement within the wider area. While based on reliable documentary sources, this information should not be viewed as complete or without other context. There are a large number of iwi historically associated with the Auckland region and many other histories known to tangata whenua.

Early Māori Settlement

The current project area is located on the Te Ararata Stream which flows into the southern shores of the Māngere Inlet and in turn, out to the Manukau Harbour. The Māngere Inlet is the western accessway to the Te Tō Waka ('the dragging place for canoes') Ōtāhuhu Portage (Figure 3). The portage provided a vital thoroughfare, allowing travel between the Waitematā and the Manukau harbours, located on the east and west coasts respectively. The head of the Te Ararata Stream was formerly the outlet of a large wetland which reportedly extended over the Bader Drive area until the late 19th century. The wetland would have provided a range of food and material resources.

The Māngere area on the southern side of the harbour was highly prized for its rich volcanic soils, extensively used by Māori for crop cultivation since the early periods of Polynesian settlement. The harbour also provided an abundance of shellfish, fish, marine birds and marine mammals which were harvested as part of a seasonal cycle of resource gathering and crop cultivation.

The strategic importance, economic and geographic benefits of the area were widely recognised by early Māori and hence the fringes of the harbour and the rich fields of volcanic soils were intensively occupied until the 1820s when the beginning of the 'musket wars' saw the tribes of the area retreat to safety. Māori began to return to the Manukau during the mid-1830s once peace had been restored.



Figure 5. Detail of 'Tamaki-Makau-Rau' map originally drawn by Leslie Kelly in c.1938 with place names by George Graham. Redrawn by Jan Kelly and Jonette Surridge, Department of Geography, University of Auckland 1990. Showing the location of the Otahuhu portage (marked with arrow) and the approximate current proposed area of works (marked with star). Map source: Auckland Libraries Heritage Collections Map 9502.

19th and 20th Century History

In the mid-1840s, a Māori Militia settlement was established by Governor Grey after he encouraged Chief Potatau Te Wherowhero, of Ngāti Mahuta in the Waikato to settle with his people at Māngere to provide protection for the city of Auckland resulting in fears of attack following the signing of the Treaty of Waitangi (Matthews & Matthews et al. 2010). The settlement covered a 486-acre area around Māngere Mountain and included 81-acre allotments and 81 five-acre allotments (Figure 4) granted to members of the Māori Militia; with two room cottages similar to those recently constructed for the Royal New Zealand Fencibles (La Roche 2000).

European settlement in the area initially developed around the timber trade in the mid-19th century. Onehunga was quickly developed into a trading port, which supplied the wider Isthmus with timber as well as wheat and oats produced by the significantly larger local Māori population. Although relations between Māori and the newly arrived European settlers were relatively harmonious, the relationship soon became strained with the increasing arrival of more settlers and the undertaking of controversial land purchases. As Māori discontent grew, the people of the Manukau and Waikato areas united in a tribal confederation under their king Te Wherowhero (King Potatau) in 1858 and made a stand against further land sales to Europeans. Governor Grey responded by demanding that all Manukau Māori surrender their weapons and sign a formal declaration of allegiance to the Queen or retire to the Waikato (ibid.). Almost all Manukau Māori retired to the Waikato before the government's subsequent invasion of the Waikato (Matthews & Matthews 2013).

Following the Waikato wars, the government confiscated most of the Māori land in the Māngere area because of perceived Māori disloyalty (see Figure 4), and the land was claimed for the Crown. 1,300 acres of land were confiscated at Māngere. This land was then divided and sold to European settlers, who ploughed it and turned it to pasture (Murdoch 1994; La Roche 2000). In 1865, a small proportion of the lands were returned to Māori who were deemed to be 'friendly' to the government. This included 395 acres at Māngere (La Roche 2000).

In 1868, the Native Compensation Court set aside a 'Native Reserve' at Te Ararata (Black Bridge) but title to the land was not ultimately granted. The majority of the land was retained by the Crown, with some sections being sold and the remainder being set aside as recreation, school, quarry and water and cemetery reserves.

During the late 19th and early 20th centuries, small holding farms predominantly utilised for wheat production and dairying dominated the area. Chinese market gardening became established from around 1915. Māngere East began to be developed for suburban housing during the 1920s with the opening of the Otahuhu Railway Workshops (Matthews & Matthews 2013).

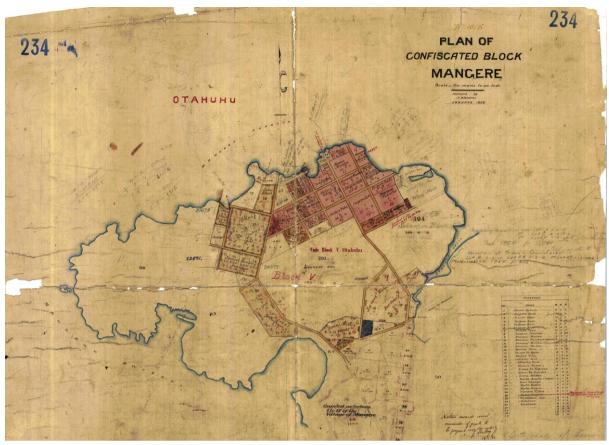


Figure 6. SO 234 (1879) showing the land that was confiscated from Māori and the Militia settlement at Māngere. Source: Quickmap

Additional Historic Survey Plans and Aerial Photographs

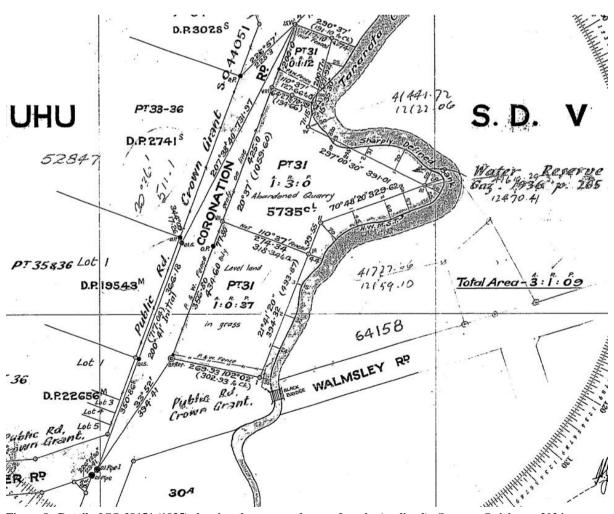
A review of historic survey plans and aerial photographs has provided valuable information regarding the past land use of the project area. The survey plan dating to 1879 showing the land that was confiscated from Māori shows the Te Ararata Stream alignment along with a bridge crossing in the location of the current bridge, that runs along the 'Road to Otahuhu' (now known as Walmsley Road) (Figure 7). The land on the western side of the stream and bridge is labelled as Lot 31, of which there is no listed owner on the plan.

A later plan dated to 1935 again shows the bridge crossing on Walmsley Road where it is labelled as 'Black Bridge'. The southern portion of Lot 31 on the western side of the bridge is shown as 'level land in grass', while the northern portion is shown as 'Abandoned Quarry' (Figure 8).

Aerial photographs from the mid-late 20th century show the project area with the abandoned quarry on the tongue of land just north of the proposed project extent (Figure 9-Figure 11). The remainder of the area to the west of the stream, within the project area remains in grass, with some evidence of earthworks on the 1979 aerial. Housing is not evident immediately adjacent to the eastern bank of the stream until the 1979 aerial.



Figure 7. Detail of SO 234 (1879) showing the current project area (outlined). Source: Quickmap 2024



Figure~8.~Detail~of~SO~28151~(1935)~showing~the~proposed~area~of~works~(outlined).~Source:~Quickmap~2024



Figure 9. Detail of 1940 aerial photograph showing the project area. Source: Retrolens ref. Crown-139-31-6



Figure 10. Detail of 1958 Whites Aviation aerial photograph showing the project area. Source: Alexander Turnbull Library ref. WA-47402-F



Figure 11. Detail of 1979 aerial photograph showing the project area. Aerial source: Retrolens ref. Crown-5415-C-2

Archaeological Background

Previous Works

While extensive archaeological work has been undertaken across the wider Māngere area (e.g. Auckland Airport development, Ambury Regional Park works, Māngere Mountain parks work, Puketutu Island development), few archaeological surveys or investigations have previously been undertaken within close proximity to the current project area at Māngere Bridge. Previous archaeological survey and investigation within the local area include assessments for parks development and road construction. These are discussed in further detail below.

In 2006, Opus undertook an archaeological assessment of a proposed new road crossing over the Manukau Harbour (Pishief 2006), following on from a previous assessment undertaken by Prince (Prince 2000). The southern extent of the survey area crossed over the Te Ararata Stream and culminated to the east of the current project area.

In 2008, Foster undertook an archaeological assessment of an area of proposed earthworks at Māngere Central Park Sports Field, where no archaeological sites were identified (Foster 2008).

Archaeological Landscape of the Project Area

Archaeological sites recorded within the wider area tend to be focussed along the coastal harbour margins, along navigable waterways and across the rich volcanic soils surrounding the volcanic cones. There are currently no archaeological sites recorded within 200m of the proposed area of works (Figure 12). The closest recorded archaeological site comprises a shell midden deposit (R11/1764) which is recorded c.370m to the north-east of the current project area (Figure 13). The site was recorded in 1992 as scatters of shell identified on the edge of a horticultural block, immediately south of Te Ararata Stream. The site was thought to be at risk from the future (now complete) motorway development. The site record has not been updated.

One other historic heritage site is recorded in the Auckland Council Cultural Heritage Inventory within 100m of the proposed area of works, at 164 Coronation Road (CHI 12464). The site is that of 20th century 'Topping House'. The house and the surrounding property are scheduled as a Category B historic heritage place within the Auckland Unitary Plan (schedule 14.1; ref. 1439).



Figure 12. Aerial map showing the distribution of recorded archaeological (red) and other historic heritage (blue) sites within the wider project area. Note the current proposed area of works is marked with a star. Aerial source: Auckland Council Geomaps 2024



Figure 13. Aerial showing the current project area (outlined in yellow) in relation to previously recorded archaeological (red) and other historic heritage (blue) sites. Note, the AUP scheduled extent of historic heritage site 'Topping House' (CHI 12464) is outlined in purple. Aerial source: Auckland Council Geomaps 2024

Results of Field Survey

Field survey of the project area was undertaken on 12 July 2024. At the time of survey, Black Bridge Reserve (on the western side of the stream) and Walmsley Road Reserve (on the eastern side of the stream), north of the bridge were under mown grass cover with groups of mature trees and tree/bush cover across the steep stream banks (Figure 14, Figure 15). The southern side of the bridge was under light vegetation cover with modern rubbish deposits (Figure 16). The area has undergone significant modification in the past for the construction of the existing Walmsley Road bridge crossing and installation of multiple underground services (Figure 17, Figure 18). The steep contour of the stream banks restricted access and visibility in part.

Subsurface testing undertaken within the reserves on either side of the bridge crossing showed a mixed mid-grey clay soil overlying yellow/grey clay subsoils (Figure 19). Inspection of sections of exposed stream bank to the north of the bridge identified yellow clay subsoils (Figure 20, Figure 21). No archaeological evidence was able to be identified during survey. Nor was any evidence of the pre-1900 bridge crossing identified, although visibility was restricted due to existing vegetation cover and the steep eroding stream banks.



Figure 14. View looking south over the southern end of Black Bridge Reserve



Figure 15. View looking south over the southern end of Walmsley Road Reserve



Figure 16. View looking north towards the southern side of the existing Walmsley Road bridge



Figure 17. View looking east along the existing Walmsley Road bridge crossing



Figure 18. View looking west over pipe crossing on the northern side of the Walmsley Road bridge



Figure 19. Typical results of test pitting within the project area



Figure 20. Exposed soils evident on the western side of the stream, within Black Bridge Reserve



Figure 21. View looking east over Te Ararata Stream showing exposed soils on opposite bank (just north of bridge)

Discussion and Conclusions

Summary

No archaeological sites have previously been identified within or close to the proposed area of works and none were able to be identified as a result of the current survey. A review of historic survey plans showed that there was a bridge in the same location as the existing by at least 1879. Whilst no remains of the historic bridge were able to be identified on the site during survey, there is some potential for some archaeological remains of a pre-1900 bridge (or bridges) may have survived subsequent works in the area. The proposed area of works has been modified in the past through the construction of the existing Walmsley Road bridge crossing and through the installation of multiple underground services.

Archaeological Values and Effects of Proposed Works

No archaeological sites have previously been identified within or close to the proposed area of works and none were identified as a result of the current survey. As such, the project area has no current identified archaeological value.

In any area where archaeological sites have been recorded in the vicinity, it is possible that unrecorded subsurface archaeological remains may be exposed during works. There is considered to be some limited potential for previously unrecorded in-situ archaeological remains to be exposed/affected as a result of the proposed works. The most likely archaeological remains to be encountered within the area would be shell midden deposits associated with pre-1900 Maori settlement and use of the Te Ararata Stream and remains of the pre-1900 bridge crossing.

Archaeological features and remains can take the form of burnt and fire cracked stones, charcoal, rubbish heaps including shell, bone and/or 19th century glass, crockery, metal etc., ditches, banks, pits, terraces, old building/structural foundations, artefacts of Māori and early European origin or human burials.

Legislation and Policy

There are two main pieces of legislation in New Zealand that control work affecting archaeological and significant historic heritage sites. These are the Resource Management Act 1991 (RMA) and the Heritage New Zealand Pouhere Taonga Act (2014).

Resource Management Act 1991

Section 6 of the Resource Management Act 1991 (RMA) recognises as matters of national importance: 'the relationship of Māori 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'. There is a duty to avoid,

remedy, or mitigate any adverse effects on the environment arising from an activity (S17), including historic heritage.

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 Māori, including wahi tapu; (iv) surroundings associated with the natural and physical resources'.

Regional, district and local plans contain sections that help to identify, protect and manage archaeological and other heritage sites. The plans are prepared under the rules of the RMA. The Auckland Unitary Plan – Operative in Part (AUP) is relevant to the project area.

There are no scheduled historic heritage places within the proposed areas of works. This assessment has established that the proposed works will have no identified effects on recorded archaeological/historic heritage sites. There is some limited potential for previously unrecorded subsurface archaeological remains to be exposed/affected during works.

Note that if suspected archaeological (pre-1900AD) or significant historic heritage (post-1900AD) remains area exposed during development works, the Accidental Discovery Rule (E12.6.1) set out in the AUP must be complied with. Under the ADR, works must cease within 20m of the discovery and the Council, Heritage NZ, mana whenua and (in the case of human remains) NZ Police must be informed. The ADR would no longer apply in respect to archaeological sites (pre-1900) if an Authority from Heritage NZ was in place.

Heritage New Zealand Pouhere Taonga Act 2014

In addition to any requirements under the RMA, the HNZPTA 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 Heritage NZ (Section 42).

An archaeological site is defined by the HNZPTA Section 6 as follows:

'archaeological site means, subject to section 42(3), –

- (a) any place in New Zealand, including any building or structure (or part of a building or structure) that -
- (i) was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and
- (ii) provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand; and
- (b) includes a site for which a declaration is made under section 43(1)'

Authorities to modify archaeological sites can be applied for either in respect to archaeological sites within a specified area of land (Section 44(a)), or to modify a specific archaeological site where the effects will be no more than minor (Section 44(b)), or for the purpose of conducting a scientific investigation (Section 44(c)). Applications that relate to sites of Māori interest require consultation with (and in the case of scientific investigations the consent of) the

appropriate iwi or hapu and are subject to the recommendations of the Māori Heritage Council of Heritage NZ. In addition, an application may be made to carry out an exploratory investigation of any site or locality under Section 56, to confirm the presence, extent and nature of a site or suspected site.

While no identified archaeological sites will be affected by the current proposed works, the possibility that unrecorded archaeological remains may be encountered during works cannot be discounted. Therefore, it is recommended that consideration is given to applying for an Authority under Section 44(a) of the Heritage New Zealand Pouhere Taonga Act prior to the start of works as a precaution.

Conclusions

No archaeological sites have previously been recorded within the proposed area of works and none were identified as a result of the current assessment. A review of historic survey plans showed that a former bridge crossing was present by at least 1879 in the location of the existing bridge. There is some potential (though limited) that remains of the pre-1900 bridge (or bridges) may have survived subsequent modifications in the area.

There is considered to be some limited potential for previously unrecorded in-situ archaeological remains to be exposed as a result of the proposed works. The potential risks of encountering previously unrecorded archaeological remains can be appropriately managed through the provisions of the Heritage NZ Pouhere Taonga Act 2014 and the AUP Accidental Discovery Rule.

Recommendations

- That there are no major constraints on the proposed flood resilience works at the Te Ararata Stream Walmsley Road bridge crossing on archaeological grounds, as no known archaeological sites will be affected and the potential that subsurface archaeological remains may be encountered can be appropriately mitigated through the provisions of the Heritage NZ Pouhere Taonga Act 2014.
- That consideration is given to applying for an Authority under Section 44(a) of the Heritage NZ Pouhere Taonga Act prior to the start of works as a precaution.
- If no Authority is obtained and subsurface in-situ archaeological evidence should be unearthed during the proposed works (e.g. intact shell midden, fire scoops, storage pits, cobbled floors, wooden, brick or stone foundations, bridge footings and rubbish pits etc. relating to pre-1900 human activity), or if human remains should be discovered, the Accidental Discovery Rule (section E.12.6.1 of the AUP OP) must be followed. This requires that work ceases within 20m of the discovery and that the Auckland

Council, Heritage NZ, Mana Whenua and (in the case of human remains) the NZ Police are notified. The relevant authorities will then determine the actions required.

- If modification of an archaeological site does become necessary, an Authority must be applied for under Section 44(a) of the HNZPTA and granted prior to any further work being carried out that will affect the site. (Note that this is a legal requirement).

Note that this is an assessment of archaeological and heritage values and does not include an assessment of Māori cultural values. Such assessments should only be made by tangata whenua. Māori cultural concerns may encompass a wider range of values than those associated with archaeological sites.

Bibliography

- Auckland Council Cultural Heritage Inventory, access at http://maps.aucklandcouncil.govt.nz and https://chi.org.nz
- Foster, R. 2008. Māngere Central Park Sports Field: Proposed Earthworks. Russell Foster & Associates report prepared for Manukau City Council.
- Moore, D., B. Rigby & M. Russell. 1997. Rangahaua Whanui National Theme A: Old Land Claims. Waitangi Tribunal Rangahaua Whanui Series.
- Matthews & Matthews Architects Ltd in association with Clough & Associates Ltd, JP Adam and RA Skidmore Urban Design Ltd. 2013. Mangere Town Centre Historic Heritage Survey. Unpublished report prepared for Auckland Council.
- Murdoch, G. 1994. Archaeology and Brief History of the Ambury Area. In: Auckland Regional Council Ambury Regional Park Management Plan, pp. 62-69.
- New Zealand Archaeological Association ArchSite Database, accessed at http://www.archsite.org.nz.
- New Zealand Heritage List, accessed at http://www.historic.org.nz
- Patterson, M. 2008. Ngati Whatua o Orakei Heritage Report for State Highway 20; Transit Manukau Harbour Crossing. Ngati Whatua o Orakei Heritage Report.
- Pishief, E. 2006. SH20: Manukau Harbour Crossing: Archaeological and Heritage Assessment. Opus International Consultants report prepared for Transit New Zealand.
- Turton, H. H. 1877. *Māori Deeds of Land Purchases in the North Island of New Zealand: Volume One*. George Didsbury. Accessed at: New Zealand Electronic Text Collection https://nzetc.victoria.ac.nz/tm/scholarly/tei-Tur01Nort-t1-g1-g1-g1-g7-t2-g1-t2.html