Archaeological Assessment of Effects Addendum: Mt Welcome Station Subdivision Development, Pukerua Bay, Porirua

Prepared for Pukerua Property Group LP

December 2025



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Document Details

Date: 4 December 2025
Status: Final
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Disclaimer and Limitations

This report ('Report') is an Archaeological Assessment of Effects and Addendum to the 2019 and 2022 Archaeological Appraisal reports carried out by Clough & Associates Ltd (Heath H. & R. Clough 2019; Cameron & Clough 2022) and follows the 2022 report's recommendations for further archaeological research to be carried out. It is prepared for the purpose of presenting the results of further archaeological site inspections and research undertaken by Heritage & Archaeology Services Ltd for Pukerua Property Group LP (the Client) in relation to the proposed works: Mt Welcome Station Subdivision Development ('Purpose'), 224 and 224a SH59, Pukerua Bay, Porirua. This report should be viewed in light of the subject, purpose and assumptions only and cannot be relied on for anything apart from the purpose described in this report. This report does not make statements of mana whenua, nor does it attempt to quantify any cultural values across the project footprint. Heritage & Archaeology Services Ltd accepts no liability whatsoever for any reliance on or use of this Report by any third party, in whole or in part, other than the specified purpose of the Report.

Document History and Status

Revision	Date	Author	Reviewed by	Status
Issue 1	13/11/2025	P. Harsveldt	C. Stevens K. Sykes	FINAL
Issue 2: Addition of Executive Summary	4/12/2025	P. Harsveldt	-	FINAL

Abbreviations

Abbreviation	Full Name
HNZPT	Heritage New Zealand Pouhere Taonga
HNZPTA	*Heritage New Zealand Pouhere Taonga Act* 2014
NZAA	New Zealand Archaeological Association
PCC	Porirua City Council
RMA	*Resource Management Act* 1991

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Executive Summary

All archaeological sites in New Zealand are protected by the *Heritage New Zealand Pouhere Taonga Act* 2014 (HNZPTA). It is a criminal offence to modify or destroy any archaeological site, recorded or not, that is pre-1900 in origin without first obtaining an authority from HNZPT to do so.

This Archaeological Assessment of Effects (AAE) Report has been prepared for the Pukerua Property Group LP for proposed subdivision development earthworks at Mt Welcome Station, Pukerua Bay, Porirua. Heritage & Archaeology Services Ltd were commissioned by Pukerua Property Group LP to prepare an AAE for the Mt Welcome Station subdivision development project area. It provides the information to support an application for an Archaeological Authority, as well as to inform resource consent processes.

The 2025 archaeological site inspections included a site walkover of various parts of the Mt Welcome project area, including the northern boundary with the Muri Block, and the proposed SH59 roundabout / turn-off entrance on the western boundary of the project area. Historic aerial photography confirmed that prior to 1942 the extant farm featured the cottage dwelling and woolshed at this time. Both the cottage and woolshed were inspected to determine whether these buildings were constructed prior to 1900.

On the basis of key 19th century building features and components deemed to be the original fabric of the dwelling, the cottage has been recorded as recorded archaeological site R26/885 in the NZAA ArchSite database as a result of the archaeologist's 2025 building inspection. Despite the interior having been extensively modified, original fabric is likely to still be in situ underneath the extant modern cladding and lining materials. The woolshed was determined to have been constructed post-1900. However, there is potential for pre-1900 archaeological remains to be encountered within the extant woolshed's building footprint. Therefore, archaeological monitoring of earthworks is recommended for project works in the vicinity of the woolshed project area.

A potential Māori pit feature has been recorded as recorded archaeological site R26/886 in the NZAA ArchSite database as a result of the archaeologist's 2025 site inspections.

The Mt Welcome Station is a large property that is located south of Pukerua Bay, an area known to have been occupied prior to 1900 by Māori and also subsequently by European settlers. This AAE has determined that the proposed earthworks pose potential for encountering and impacting Māori and historic-period archaeological sites.

Evidence of pre-1900 Māori sites associated with gardening and/or occupation activity may potentially be encountered during the subdivision project's earthworks. Evidence of pre-1900 historic period farming and occupation activity may potentially also be encountered during works.

It is recommended that:

- An Archaeological Authority should be sought for the Mt Welcome Station project area due to the potential to affect archaeological remains protected by the HNZPTA. This will allow for archaeological monitoring of project earthworks, analysis and reporting of archaeological sites and/or material, should any be encountered during project works.

- An Archaeological Management Plan (AMP) should be prepared to manage the archaeological response of the project.

- Under any granted Archaeological Authority, an archaeologist should monitor ground excavation works as per the AMP and record any evidence of pre-1900 archaeological remains, following standard archaeological practices.

1 Introduction

1.1 Purpose of Report

This Archaeological Assessment of Effects (AAE) has been prepared for Pukerua Property Group LP (the Client) for proposed subdivision development earthworks at Mt Welcome Station, Pukerua Bay, Porirua. Heritage & Archaeology Services Ltd were commissioned by Pukerua Property Group LP to prepare an AAE for the Mt Welcome Station subdivision development project area (the Project area - Figure 1). The full envelope of works include:

- Lot 1 DP 534864 (422 SH59);
- Lot 2 DP 534864 (422A SH59);
- Lot 2 DP 89102 (422B SH59);
- Part Lot 1 DP 89102 (422A SH59); and
- SH59 corridor adjacent to the site which is legally described as Road Reserve.
- Lot 1 DP 608433, Lot 1000 DP 608433 (north boundary fenceline earthworks with 34 Muri Road).

This AAE serves as an addendum to the 2019 and 2022 Archaeological Appraisal reports previously carried out by Clough & Associates Ltd (Heath H. & R. Clough 2019; Cameron & Clough 2022) and follows the 2022 report's recommendations for further archaeological research to be carried out. The 2022 report recommended that a building heritage specialist inspect the two potential pre-1900 buildings on the property to assist with determining their likely date of construction. The same report identified six depression sites and recommended that these be investigated by an archaeologist to determine whether these are potential archaeological features. The 2022 report also recommended that further parts of the Mt Welcome project area be inspected (that were not visited during the previous 2019 site walkover).

Heritage & Archaeology Services Ltd was commissioned to prepare this AAE report in the form of an addendum to the 2022 Archaeological Appraisal document. The AAE was commissioned to acknowledge and confirm the previous survey work, address the previous archaeological appraisal reports' limitations and recommendations, as well as further investigate the project area, including the identified depressions and inspection of two potential pre-1900 buildings to determine their dates of construction. This work involved several site visits to inspect the project area, including two potential pre-1900 buildings (a cottage dwelling and a woolshed) to determine whether any potential sites within the project area have archaeological values.

Earthworks have the potential to affect potential archaeological remains at Mt Welcome Station, a large farm that has not previously experienced much development over time (Figure 2).

This report provides an archaeological assessment of the project and recommendations on how to best manage potential archaeological risk.

The purpose of this document is to present the identified archaeological sites on or in the vicinity of the proposed works area, present the findings of site inspections of the project area for evidence of archaeological sites, and provide an assessment of the archaeological values of the property and impacts of proposed works.

The report supports an Archaeological Authority application for submission to the Environmental Protection Authority (EPA) portal under the *Fast Track Approval Act* 2024 (FTAA)[1] for an Archaeological Authority to mitigate the effects of the project works on archaeological values. All recommendations in the assessment are made in accordance with statutory requirements and in accordance with best practice.

1.2 Project Works & Background

The Mt Welcome Station Pukerua Bay project involves the construction of a staged residential subdivision of 949 residential lots including associated infrastructure over 15 years at 422,422A, 422B State Highway 59, Pukerua Bay, Porirua, as well as 34 Muri Road and within the State Highway 59 Road Reserve.

The legal descriptions of the properties of the Mt Welcome Station Subdivision Development Construction Works footprint (the project area) are tabled below (Table 1, Figure 1).

Construction Works for this project will primarily involve preparation cut/fill excavations at various locations within the proposed Mt Welcome Station Subdivision Development project area. This includes the site scrape, and build-up of ground with some valleys being infilled, construction of associated roading and services infrastructure.

The proposed development project seeks to create:

a. 949 residential allotments sized between 316m^2 to 2386m^2 (to enable 949 future dwellings) with an average lot size of close to 523m^2;

b. A commercial centre;

c. Associated infrastructure including wastewater (including wastewater storage facilities), stormwater, water reticulation, roading, and pedestrian and cycling trails;

d. Earthworks to establish the required finished surface levels for building platforms, roading, parks and drainage;

e. Landscaping; and

f. New intersection with State Highway 59.

[1] Heritage New Zealand Pouhere Taonga (HNZPT) is responsible for their organisation's specific Act (*Heritage New Zealand Pouhere Taonga Act* 2014 in relation to Archaeological Authorities) via EPA's project approval process. HNZPT is an administering agency and have a fast track procedure in place as part of the Fast Track Approval Act 2024 (FTAA).

Archaeological appraisal documents (2019 and 2022) were prepared by Clough & Associates for the Mt Welcome project in respect of the plan change / variation to the Proposed Porirua District Plan. Pukerua Property Group LP are now progressing with a fast-track consenting application for the project and further work to cover off any gaps and updates to ensure it meets any necessary tests under the FTAA. Pukerua Property Group LP are aiming for lodgement of the Fast Track application in November 2025. Commencement of works are proposed for late 2026.

Table 1. Legal description of the full envelope of project works.

Legal Description	Address
Lot 1 DP 534864	422 SH59
Lot 2 DP 534864	422A SH59
Lot 2 DP 89102	422B SH59
Part Lot 1 DP 89102	422A SH59
SH59 corridor adjacent to the site which is legally described as Road Reserve.	Road reserve
Lot 1 DP 608433, Lot 1000 DP 608433	34 Muri Road

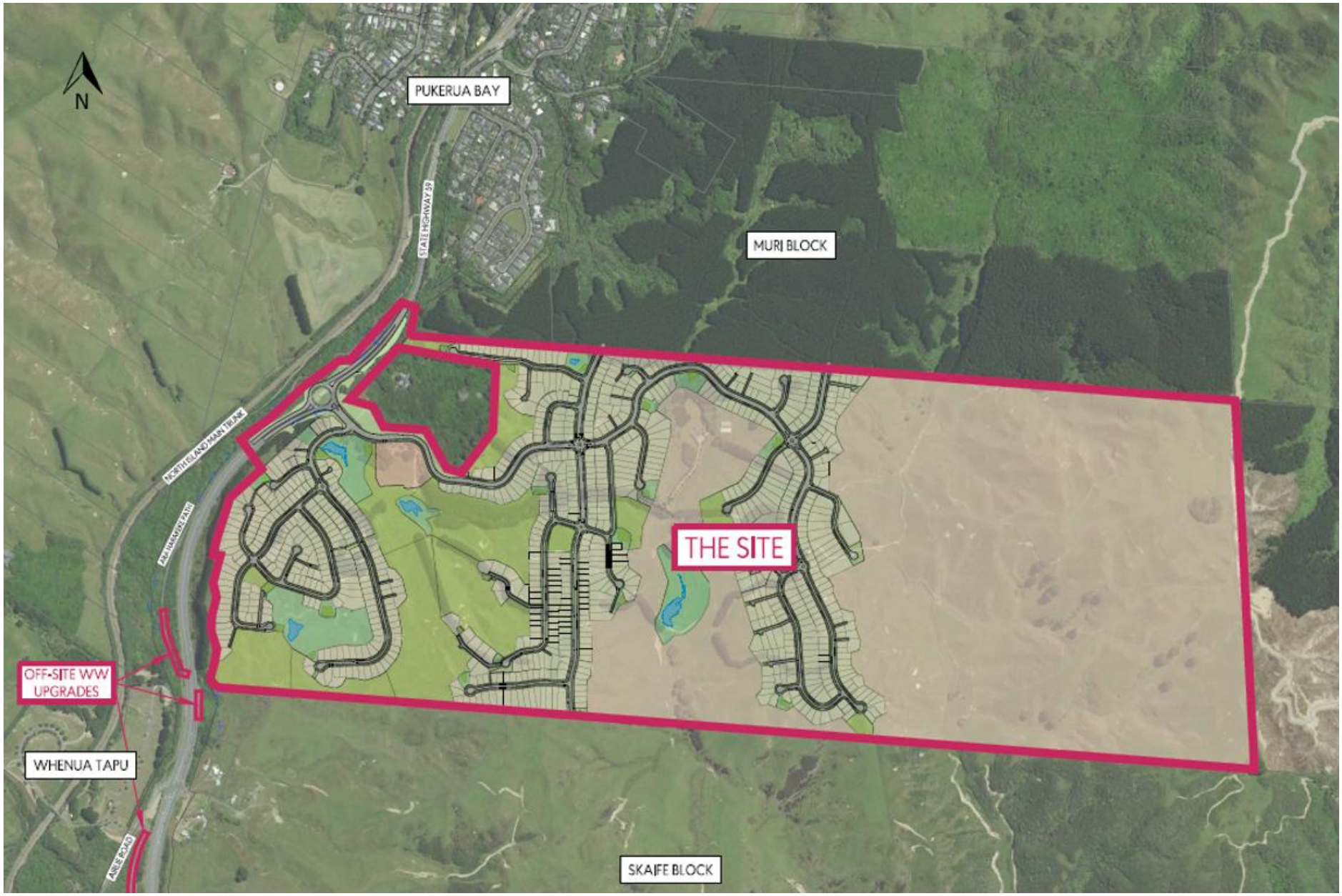


Figure 1. Location of the project area (outlined in red), Pukerua Bay in Porirua. Source: Envelope.

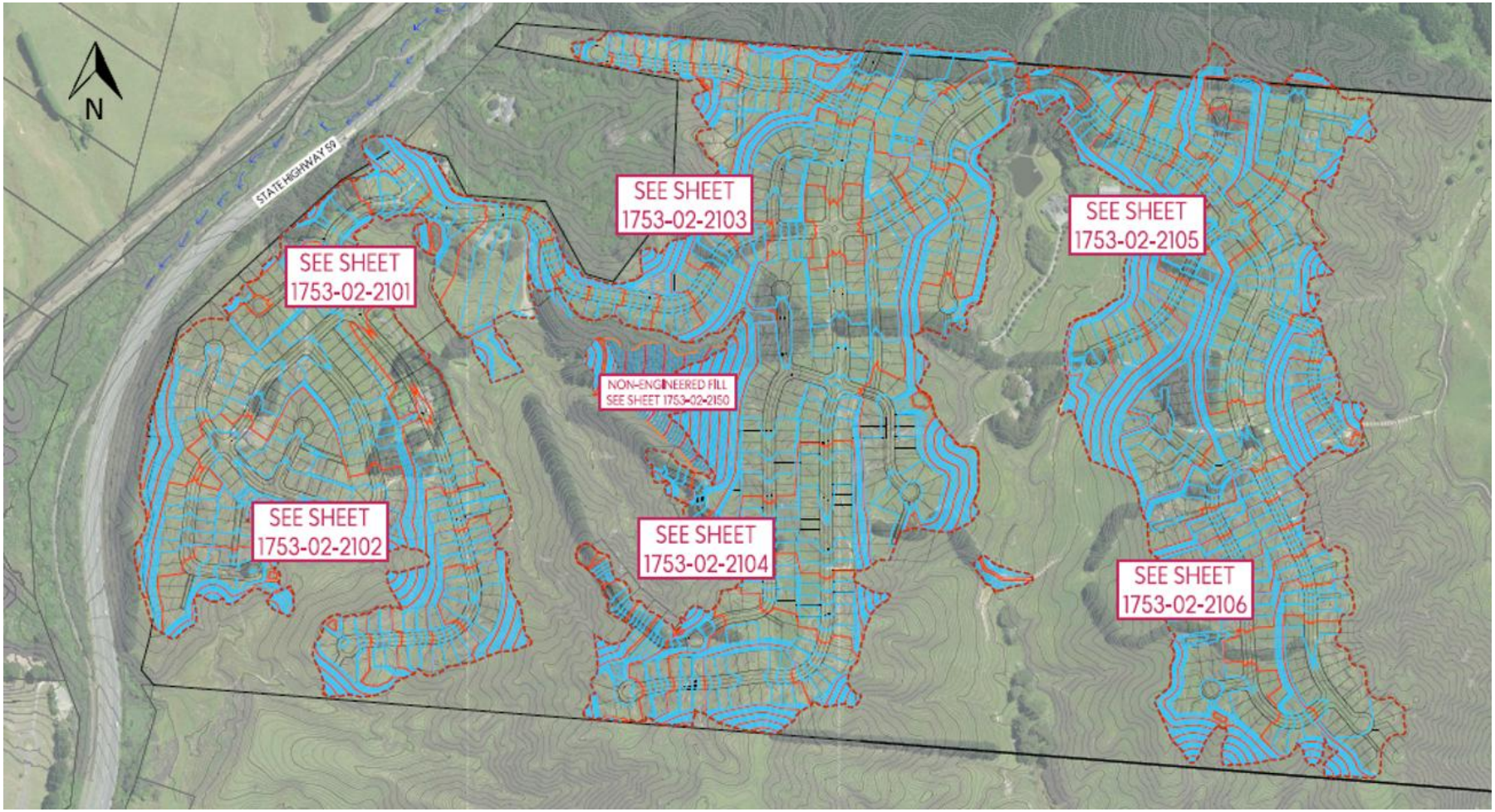


Figure 2. Closeup of annotated map showing the location of the subdivision project area (with sections and roads highlighted in blue), Pukerua Bay, Porirua. Source: Classic Developments Ltd.



Figure 3. Proposed map of the Mt Welcome development project area showing the proposed roads and sections on the Lower Terrace, Upper Terrace and Lucas Block. Source: Mt Welcome Concept Masterplan 020524 Classic Developments.

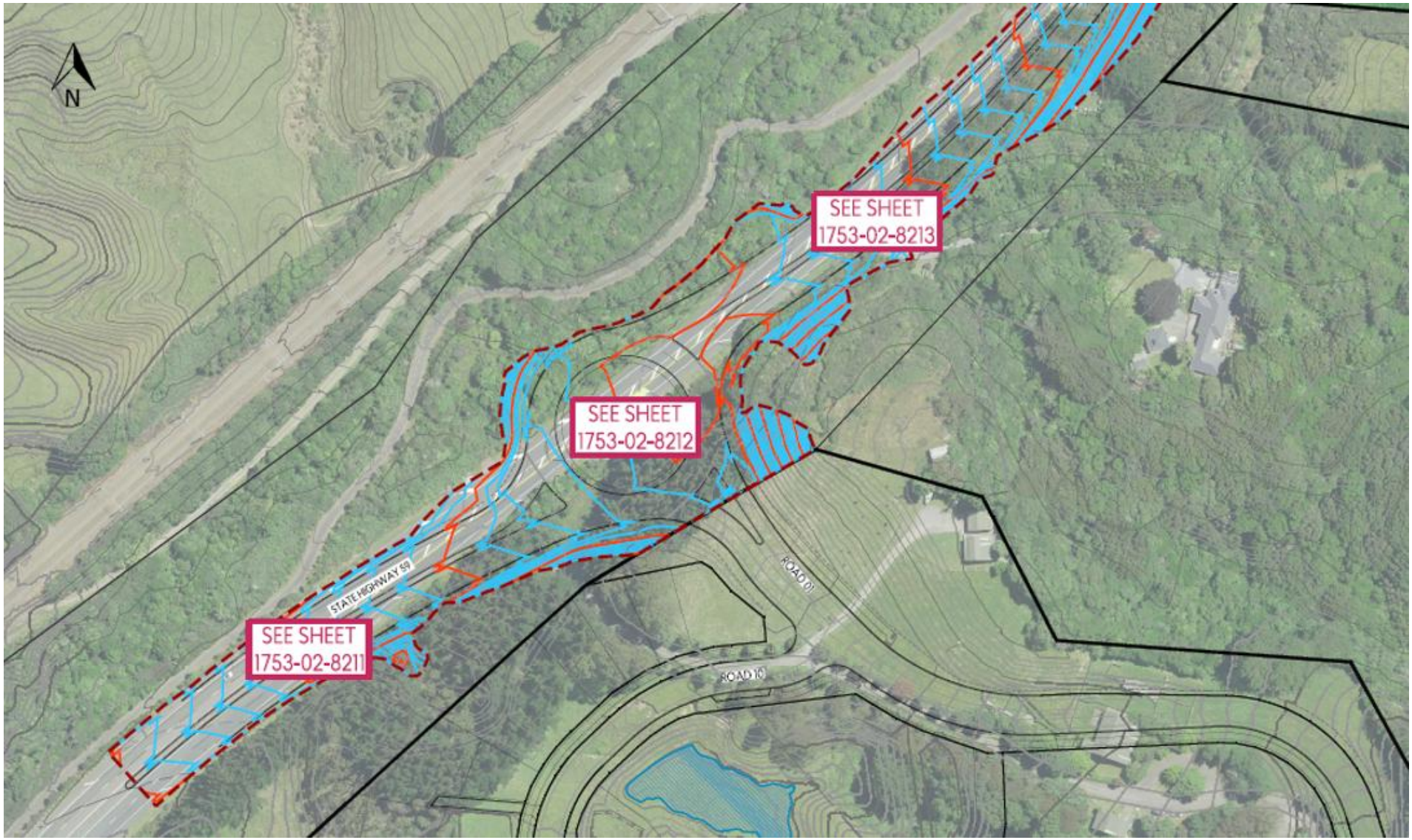


Figure 4. Closeup of annotated map showing the location of the project area entrance on SH59 and the proposed roundabout works, Pukerua Bay, Porirua. Source: Envelope.



Figure 5. Aerial image showing the central areas of the site (with the modern homestead grounds visible at the top of the image). Source: Mt Welcome Concept Masterplan 020524 Classic Developments.

2 Statutory Framework

2.1 *Fast Track Approvals Act* 2024

Pursuant to section 42(4)(i) of the FTAA, the Applicant is seeking an Archaeological Authority under the *Heritage New Zealand Pouhere Taonga Act* 2014 (HNZPTA). This Part 3 of this Application has been informed by:

- Section 43(3)(i) of the FTAA which requires that the requirements of Schedule 8, clause 2 is met for an Archaeological Authority; and
- Section 81(1)(3)(j) of the FTAA which directs the decision maker to consider Clauses 4 and 5 of Schedule 8 for an Archaeological Authority.

HNZPT is an administering agency and have a fast track procedure in place as part of the FTAA process. An Archaeological Authority application submission will be via the Environmental Protection Authority's (EPA) portal as part of the FTAA process. HNZPT is responsible for their organisation's specific Act (*Heritage New Zealand Pouhere Taonga Act* 2014 in relation to Archaeological Authorities) via EPA's project approval process.

2.2 *The Heritage New Zealand Pouhere Taonga Act* 2014

The purpose of the *Heritage New Zealand Pouhere Taonga Act* 2014 (HNZPTA) is to promote the identification, protection, preservation, and conservation of the historical and cultural heritage of New Zealand (HNZPTA section 3), which places emphasis on avoiding effects on heritage.

An archaeological site is defined in the HNZPTA as:

> *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.*
>
> *Includes a [post-1900] site for which a declaration is made under Section 43(1).*

The HNZPTA provides blanket protection to all archaeological sites whether they are recorded or not. Protection and management of sites is managed by the Archaeological Authority process, which is administered by Heritage New Zealand Pouhere Taonga (HNZPT). It is illegal to destroy, damage or modify archaeological sites without an Authority to do so from HNZPT.

The HNZPTA contains a consent (authority) process for any work affecting archaeological sites.

Any person who intends to carry out work that may modify or destroy an archaeological site, or to investigate a site using invasive archaeological techniques, must first obtain an authority from HNZPT. The process applies to sites on land of all tenure including public, private and designated land. The HNZPTA contains penalties for unauthorised site damage or destruction. For places in which Māori have a particular interest, applications for an authority require records of appropriate tāngata whenua consultation.

The Archaeological Authority process applies to all sites that fit the HNZPTA definition, regardless of whether:

- The site is recorded in the NZ Archaeological Association (NZAA) Site Recording Scheme or entered in the New Zealand Heritage List;
- The site only becomes known as a result of ground disturbance; and/or,
- The activity is permitted under a district or regional plan, or a resource or building consent has been granted.

HNZPT also maintains the New Zealand Heritage List/Rārangi Korero (formerly the Register), which maintains a record of Historic Places, Historic Areas, Wahi Tapu, Wahi Tapu Areas and Wahi Tupuna. The purpose of The List/Rārangi Korero is to inform members of the public about such places and to assist with their protection under the RMA.

In considering any application for an Authority, HNZPT may grant fully, or in part, or decline any application. The Act allows for up to 2 months for HNZPT to process an Authority after the application has been formally lodged although, except in special cases, the time allowed is 20 working days. There is a 15-working-day appeal period if an authority application is granted or declined.

2.3 *The Resource Management Act* 1991

The *Resource Management Act* 1991 (RMA) provides direction, guidelines and regulations for the sustainable management and protection of the natural and cultural environment. Section 6(f) of the RMA recognises 'historic heritage' as a matter of national significance and identifies the need for protection of historic heritage from inappropriate subdivision, development and use.

The definition of 'historic heritage' (RMA Section 2) refers to those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, and includes historic sites, structures, places and areas, archaeological sites, and sites of significance to Māori.

3 Methodology

This AAE combines both desk-based research and information gathered during a site visit to the project area.

3.1 Desk-based Research

Desk-based research utilised a range of information sources including:

- The previous Clough & Associates Archaeological Appraisal reports: Heath and Clough 2019; Cameron & Clough 2022.
- Published and unpublished historical accounts and reports.
- Local historic land records.
- Historic aerial photographs.
- Historic survey plans and maps accessed via Grip software.
- The NZAA Site Recording Scheme (ArchSite).
- The HNZPT New Zealand Heritage List/Rārangi Kōrero; and
- Review of the Porirua City Council (PCC) District Plan.

3.2 Site Visit

Several site inspections of the proposed project area were carried out between August and October 2025 by Heritage Consultant & Archaeologist Patrick Harsveldt to assess the possible effects the project will have on any recorded or unrecorded archaeological sites.

The site visit methodology involved walking the various parts of the current farm and visual inspection of the landscape with 10x42 binoculars and a camera for potential archaeological features, and photographing the landscape (with a 25 - 400mm lens).

The author followed the same methodology, as per the 2019 site walkover: '*the ground surface was examined for evidence of former occupation (in the form of shell midden, depressions, terracing or other unusual formations within the landscape, or indications of 19th century European settlement remains). Exposed and disturbed soils were examined where encountered for evidence of earlier modification, and an understanding of the local stratigraphy. Particular attention was paid to the spur and ridge lines and creek banks (topographical features where archaeological sites are often found to be located). Photographs were taken to record the topography and features of interest and GPS readings were taken to record the latter where appropriate.*'

The following site visit objectives were to:

- Relocate and inspect the depressions outlined in the 2019 and 2022 archaeological appraisal documents. The depressions were depicted in an annotated image and only marked with dots on a small aerial image (Figure 6) in both the 2019 and 2022 Clough reports that did not include GPS coordinates.

- Carry out archaeological spade test pit investigations at the locations of depression sites outlined in the 2022 report, to determine whether the depressions were potential archaeological features, or due to other natural processes such as livestock rooting.

- Inspect areas previously not covered by the earlier archaeological site walkover.

- Carry out a building investigation of the potential pre-1900 buildings on site: the cottage and woolshed. The inspection of building materials and evidence of the construction methodologies employed would assist with determining phases of construction over time.

The site visit findings are presented in Sections 7.5 and 7.6.



Figure 6. Locations of depressions recorded as yellow dots (annotated by the author with numbers 1-6) observed in the previous Archaeological Appraisal (2019 and 2022) documents. Source: Clough & Associates.

4 Constraints and Limitations

The report is an archaeological assessment of the impacts of project works within the footprint of the Mt Welcome Station project area, Pukerua Bay, Porirua. The proposed earthworks will take place within the Mt Welcome Station project area (Lot 1 DP 534864; Lot 2 DP 534864; Lot 2 DP 89102; Part Lot 1 DP 89102), as well as in the nearby State Highway 59 Road Reserve (SH59 corridor adjacent to the site) and on the adjacent 34 Muri Road property (Lot 1 DP 608433, Lot 1000 DP 608433).

Statements are made as to the location and nature of recorded archaeological sites and their archaeological values. The archaeological information is derived from both published and unpublished material (i.e. Digital Archaeological Library and the New Zealand Archaeological Association ArchSite Database) and information from archaeologists who have undertaken research and HNZPT authority work in this area of Wellington.

Archaeological site location data should be regarded as a guide only. The locational accuracy of archaeological sites recorded in ArchSite is variable. Recorded archaeological sites in ArchSite are only accurate to within, at best, 100 m of the actual site location. The full extent of recorded sites is often not known and the single point coordinate provided by ArchSite is often based on the visible surface expression only. This does not necessarily represent the true subsurface extent of archaeological sites as defined in the *Heritage New Zealand Pouhere Taonga Act* 2014 (HNZPTA).

All archaeological sites are protected under the HNZPTA, whether they are recorded in ArchSite or not. It is illegal to modify or destroy an archaeological site without an Archaeological Authority from HNZPT.

This report does not include an assessment of Māori cultural values. Statements are made as to the location and nature of archaeological sites and their archaeological values. There are no statements on the cultural significance of the project area nor are the views of tāngata whenua represented in this report. An assessment of cultural significance will not necessarily correlate with an assessment of the archaeological significance of the area.

5 Environmental Setting

5.1 Description of the Project Area

The Mt Welcome project area is located on rural land south of the suburb of Pukerua Bay, part of the northern most suburbs of Porirua. Access to the property is via a driveway on the east side of SH59. The land parcels that make up the project area are as per those outlined in the Introduction Section.

6 Historical Background

An historical background of early settlement has already been carried out by Clough & Associates Ltd in previous Archaeological Appraisal documents, only a portion of which is presented in this section. Please refer to the Appendices for this information (Heath & Clough 2019, Cameron & Clough 2022).

It is not the purpose or requirement of this document to provide a detailed history of the occupation of the Porirua region (including the suburb of Pukerua Bay). The following section of this report summarises the key events in the wider area and provides a more focused study of the project area and its immediate vicinity with regard to known archaeological activity.

No attempt is made here to synthesise the rich and detailed record of Māori oral traditions and whakapapa concerning the area, or the various perspectives of the tāngata whenua representatives involved as this is best done by tāngata whenua.

6.1 Pre-European Māori Archaeological Landscape

The Porirua region has a long and rich history. The coastline and watercourses of the region were regarded as rich food resources by early Māori and were intensively utilised. However, this utilisation and occupation is currently significantly under-recorded in the formal archaeological record due to lack of systematic survey.

The following italicised historical background is attributed to Cameron & Clough 2022 (3):

> *According to tradition, the first settlers in the area arrived with Kupe, the Polynesian voyager, who left an anchor stone at Porirua. Following Kupe, brothers Tara and Tautoki explored the Wellington district and settled the area. Their descendants Ngāti Tara lived there for several generations before the arrival of Ngāti Kahungunu. By the 17th century Ngāti Ira had spread westward into Porirua, intermarried with Ngāti Kahungunu and Ngāti Tara, and built the Waimapihi Pā in Pukerua Bay (Best 1914; 1917).*

> *Waimapihi Pā was seized by Ngāti Toa around 1819-20 from defending Ngāti Ira and Muaūpoko warriors and Ngāti Ira were pushed out of the Porirua region. Ngāti Toa still held the area in 1845, as described by Bevan (1907). Bevan describes the accommodation he stayed at while journeying from Wellington to Waikawa. Such stopovers included European barracks, local houses, kāinga and pā. Bevan stayed at Waimapihi Pā, held by Ngāti Toa, and described it as a fortified village containing hundreds of inhabitants with an outer stockade, two lines of palisades with deep ditches and underground retreats (Bevan 1907: 5). Ngāti Toa also had many pā and small kāinga within the Porirua Harbour, an area which is an important part of Ngāti Toa's history.*

The reader is referred to the Te Rūnanga O Toa Rangatira Cultural Values Assessment for an indepth historical overview of Pukerua (McClean & Bishop 2025).

6.2 Pukerua Bay Following European Contact

The following italicised text is attributed to the historical background of Cameron & Clough 2022 (3):

> *Following European contact, the Wellington district became a desirable place for British settlers. From the 1830s, the cultivation of gardening and flax production increased in the area to provide for whalers and traders, which in turn contributed to the increase and placement of European settlement (Stodart 2015). There was fighting over land between Māori and Pakeha (Keith 1990). Porirua was a prime location for farming and control over land access to the Wellington district, while Pukerua was also a stopping point for those travelling south. By the early 1840s the Porirua district was purchased, surveyed and then settled by the New Zealand Company.*
>
> *In July 1869, an outcrop of quartz on a ridge near Mount Welcome was found by two men out searching for lost cattle and two gold mining companies were formed, The Mount Welcome Gold Mining Company and the Telegraph Gold Mining Company. Unfortunately, no gold was ever recovered and both companies had folded by 1870. It was also noted that the Wall family who had begun farming to the east of the mining areas in 1852, had named their farm 'Mount Welcome'.*

6.2.1 Historic Survey Plans

The Land Information New Zealand (LINZ) database (accessed via QuickMap and GRIP online) contains thousands of cadastral surveys from 1840 onwards. By nature, surveys have a relatively high degree of accuracy and the ability to access historic digitised surveys allow for overlays and comparison to modern maps to identify archaeological features.

Various survey plans from the latter half of the 19th century to early 20th century indicate rural farm development, which continued to the present (Figure 7 - Figure 8).

The following italicised historical background is attributed to Cameron & Clough 2022 (3-8):

A review of old maps and plans was undertaken to understand past land use and ownership of the properties in the variation area. The earliest plan [ML 3088] *found was dated 1870* [Figure 7]. *This plan shows a survey of the Waimapihi and Pukerua Blocks. The variation area is situated in the southwest part of the plan in Section 4 and the southern part of Section 3 with a landcover of bush and watercourses indicated. Mount Welcome is also shown on the plan. A later plan from 1896* [ML 775] *has the properties where the variation area is located labelled as Pukerua Section 4 and 3C in Block V Paekakariki Survey District* [Figure 8].

The plan dating from 1896 [Figure 8] *shows the northern part of the variation area and has an annotation that indicates it was still covered in bush at this point in time. Another plan also dated 1896* [A 831 not pictured] *has the two southern sections containing the variation area now labelled as 4N and 4S.*

The survey plan dated 1928 [SO 18802, not pictured] *shows the western part of the variation area. It is noted that the plan has the names R.S. Wall and Isabella Wall annotated. Reginald Stace Wall passed away in 1945 and in his obituary it was noted that he had built on his 'Mount Welcome' property around 20 years earlier and had lived there until his death.*[2] *The obituary also noted that he was the son of the late Anthony Wall, an early pioneer settler (Wanganui Chronicle 20 December 1945). Isabella Wall was the wife of Reginald Wall, as noted in another obituary (Evening Post 12 December 1945).*

Information obtained from early survey maps and plans did not identify any pre-1900 buildings in the variation area.

The reader is referred to the historical background Cameron & Clough 2022 (3-8), which is attached as Appendix 2.

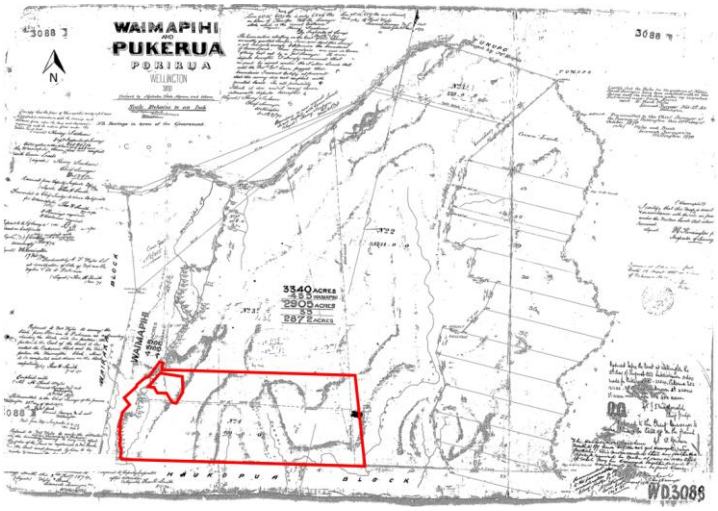


Figure 7. 1870 Survey Plan ML 3088 of the Waimapihi and Pukerua Blocks with the indicative Mt Welcome project area outlined in red and the location of the peak of Mt Welcome to the northeast (source: LINZ via Grip software).

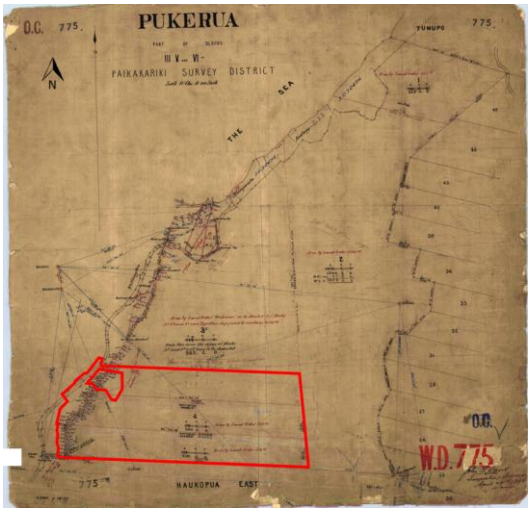


Figure 8. 1896 survey plan ML 775 plan showing survey plan of Blocks III, V and VI of the Paekākāriki Survey District. The indicative Mt Welcome Station subdivision project area is outlined in red (source:, LINZ via Grip software).

[2] Nb: it is unclear from this obituary exactly what type of building/s R.S. Wall had constructed on the property while he lived there. i.e. whether it was a dwelling or wider farm-related building/s].

6.2.2 Historic Aerial Photography

Beginning in 1930, both local and national governments began a campaign of aerial photography to map New Zealand in detail. Typically taken at 9000 feet, these Microfiche images provide great detail and when compared to modern satellite images accurately show the changes that have occurred in the last 90 years. This information is key to providing insight into the level of disturbance an archaeological site may have endured, and in some instances, whether or not the site has survived into the 20th century.

An historic aerial image from 1942 shows that the project area at this time was well established as a farm with two standing buildings visible, namely the extant cottage and woolshed buildings (Figure 9).

Cameron & Clough (2022: 9) state the following: *Aerial photographs from 1942 up to the present day show consistent use of the farmland as grazing areas for livestock. Modification of the landscape over time includes grading of slopes, farm tracks, fencing, the planting of pine and a new house in the central north part of the variation* [project] *area that first appears on a 2002 aerial photograph.*

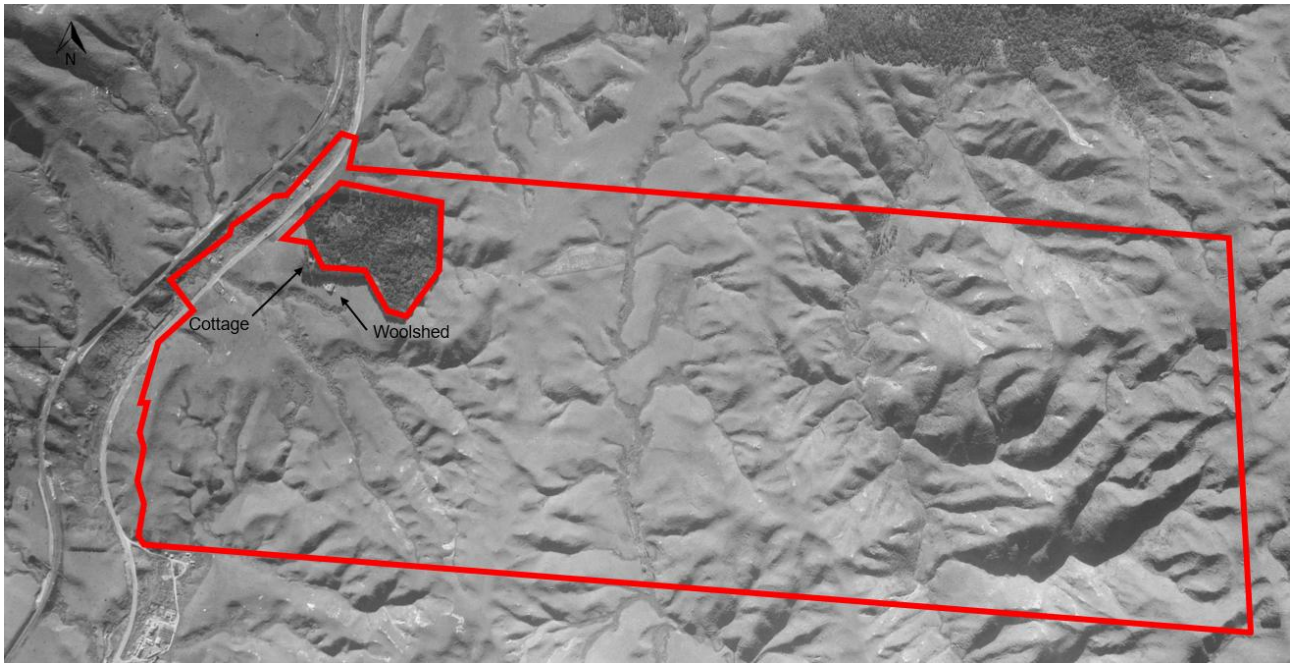


Figure 9. Aerial photograph dated 1942 (Survey number SN198, Run number 324C, Photo number 5) showing the indicative project area outlined in red with the locations of the cottage building and woolshed building indicated by arrows in the 1942 aerial. Sourced from: http://retrolens.nz.

7 Previous Archaeological Work

7.1 Previous Archaeological Investigations

Between 2019 and 2022, Classic Developments Ltd commissioned Clough & Associates to prepare two archaeological appraisal documents to assist Porirua City Council (PCC) in changes to its District Plan (to allow the development of Mt Welcome Station). An archaeological appraisal of Lot

1 DP 534864 (the western third of the project area), including a field survey, was carried out by Clough & Associates in 2019 (Heath and Clough 2019). This was followed by an updated archaeological appraisal (Cameron & Clough 2022), which included an additional property (Lot 2 DP 534864, the eastern two-thirds of the variation area) and was a desktop-study of both Lots. Clough & Associates Ltd didn't carry out a site visit of the additional Lot at this time.

Clough & Associates Ltd identified three buildings along the driveway leading into the project area from the west. These included a cottage and a woolshed that are proposed for demolition (Cameron & Clough 2022: 14).

No structures were identified on any of the pre-1900 maps that were reviewed by Clough & Associates Ltd, but the cottage and the wool shed do both appear on the 1942 aerial image. The current landowner, Rick Lucas, could not confirm when they were built. The 2022 report recommended that both structures would require inspection by a built heritage specialist to determine if their date of construction could be established. The third building, south of the wool shed was determined to be modern.

Several depressions were noted by Clough & Associates Ltd in the south-eastern part of the survey area that could potentially be archaeological features. However, Cameron & Clough (2022: 14) stated that '*holes/depressions resulting from deer rooting were witnessed all over the property and these depressions also have the potential to have been made by farm stock*'.

The following is a summary of the 2019 field survey results discussed in the most recent Clough & Associates Ltd (Cameron & Clough 2022: 14) report:

> *No probing or test pitting was carried out during the survey. However, Tonkin & Taylor Ltd have carried out a geotechnical investigation across the property. On 9, 16 and 17 May 2019 25 tests pits up to 5.6m in depth and 9 dynamic cone penetrometer (DCP) tests were carried out (Tonkin & Taylor Ltd 2019). The sections recorded by Tonkin & Taylor Ltd showed a topsoil overlying silty fine sand across most of the site, bar the wetter marsh areas. No potential archaeological features or fills were seen in the test pits and in many places the topsoil was thin, suggesting recent modification that could have obscured or destroyed archaeological features, if any had once have been present.*
>
> *Parts of the northern and western areas were not surveyed on foot due to the presence of farm stock… No confirmed archaeological sites were identified during the field survey*.

The conclusions of Clough & Associates Ltd (Cameron & Clough 2022: 19) were:

> *Depressions that may possibly be archaeological features were identified in the central part of the survey area in Lot 1, but these may have been caused by farm stock. The results of geotechnical testing by Tonkin & Taylor Ltd were reviewed, but there were no indications of archaeological deposits in the locations tested and a thin topsoil indicated some degree of modification. Historical research has indicated that the entire variation* [project] *area was covered by bush, as shown on an 1870 plan, and the northern part was still bush covered in 1896. No evidence of buildings or structures was identified on pre-1900 maps and plans that were reviewed.*

And furthermore (Cameron & Clough 2022: 22):

> *No archaeological sites have previously been recorded in the variation* [project] *area and none were identified during the 2019 field survey of Lot 1 DP 534864 or current desk-top*

study encompassing both Lots [Lot 1 DP 534864 and Lot 2 DP 534864]. *The land has been modified by bush clearance and farm activity. The only potential archaeological features identified during the survey consisted of depressions that could not be confirmed as archaeological features through visual inspection. As parts of the variation area were not included in the 2019 survey, additional survey, including subsurface testing of possible archaeological features is recommended at the detailed planning stage to determine if any archaeological features or deposits can be identified.*

Overall, the archaeological potential of the property to contain complex sites is considered to be low, and the effects of future development on archaeological values in the proposed variation area are likely to be low. Any adverse effects on archaeological values could be appropriately mitigated by recording and information recovery under the archaeological provisions of the HNZPTA. There are no specific provisions recommended to be included in the variation rules or standards.

Clough & Associates Ltd (Cameron & Clough 2022: 23) recommended the following:

- Additional survey of the parts of the variation area not included in the 2019 survey should be undertaken prior to the resource consent stage to determine if any archaeological features or deposits can be identified.
- Subsurface testing to determine the origin of the depressions identified during the 2019 survey should be carried out to determine if they are archaeological in nature.
- Further assessment of the wool shed and cottage should be undertaken by a built heritage specialist to assess the historic heritage values and determine if the structures have a 19th century construction date, so that the potential effects of future development on archaeological/historic heritage values can be established.

Heritage & Archaeology Services Ltd have prepared this AAE report to address the above bullet points so that *"if any adverse effects on archaeology are identified recommendations for appropriate mitigation should be made. These would generally consist of recording and information recovery under the archaeological provisions of the HNZPTA, and retention or adaptive reuse of the woolshed and cottage, depending on their assessed heritage values."*

7.2 Recorded Archaeological Sites

There has been limited archaeological work undertaken in the wider Pukerua Bay area, and there is limited historic material published about it. The archaeological record for this part of Porirua is incomplete, not due to a lack of archaeology, rather a lack of systematic archaeological survey or recent development. Based on current knowledge and recorded archaeological sites in the wider landscape, archaeological sites within the area include historic-period land parcels and pre-1900 standing buildings and foundations. Māori archaeological sites in the wider Porirua area include small settlements, undefended kāinga and defended pā sites. Kumara gardens and storage pits were most likely distributed across the wider region. Evidence of this archaeological landscape of early Māori activity and occupation has likely been heavily impacted by intensive residential and rural development over the last century.

There were no previously recorded archaeological sites located within the Mt Welcome Station subdivision project area. There are numerous recorded archaeological sites in the wider vicinity of Pukerua Bay, however, these are outside of the defined perimeter of the project area and will not be affected by proposed works (Figure 10).

The nearest previously recorded archaeological site, NZAA Site Record R26/820, is a WWII-era Homeguard defensive trench that is located approximately 100 m south of the southern extent of the project area and will not be affected by project works.

Further recorded archaeological sites are located to the north/northwest/northeast of the Mt Welcome Station project area and are mainly associated with pre-European Māori occupation and land use activities. An additional two recorded archaeological sites refer to historic period industrial sites: a brickworks and a goldmining site (the latter of which carries the name of the nearby Mt Welcome peak). There are also several WWII-era defensive structures that are recorded in the NZAA ArchSite but are not considered to be archaeological sites under the HNZPTA.

In summary, these recorded archaeological sites are located outside of the defined extent of the Mt Welcome Station project area and will not be affected by proposed project works. However, these recorded archaeological sites are indicative of Māori archaeological sites that may potentially be encountered within the project area. Based on previous records in the vicinity, there is potential to encounter archaeological remains at ground level or beneath the extant ground level.

Any archaeological material is likely to be related to pre-1900 historic period rural activity and/or evidence of Maori occupation and/or gardening activity. On this basis, there is a moderate to high probability of finding unrecorded archaeological remains within the project area.

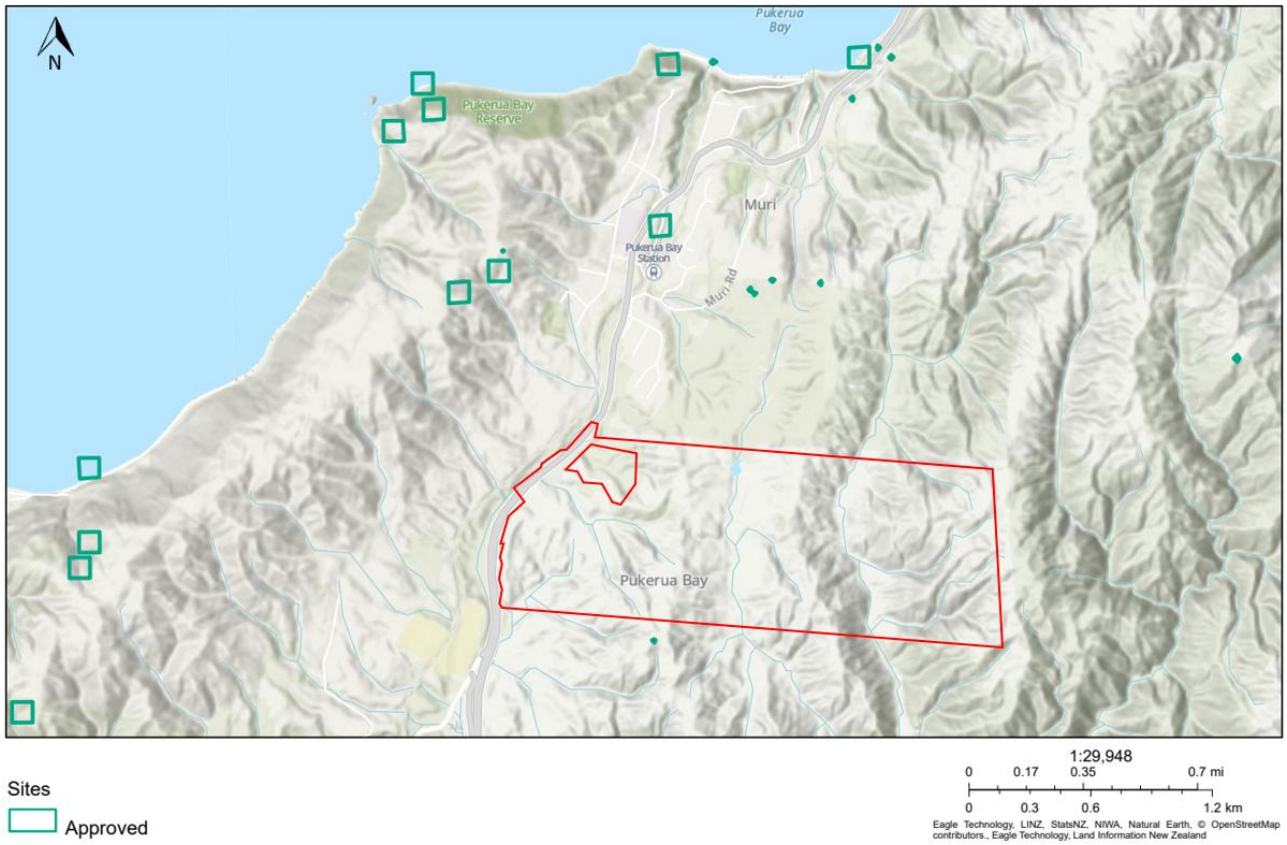


Figure 10. Annotated map of the project area, showing recorded archaeological sites (outlined in green) in the vicinity of the proposed Mt Welcome Station subdivision project area (indicative outline in red). Source NZAA ArchSite September 2025.

The following sites were noted in the (Cameron & Clough) 2022 Archaeological Appraisal. The NZAA ArchSite database was checked during the research for this AAE for any recent additions of archaeological sites. No new recorded archaeological sites have been entered into the NZAA ArchSite database since the 2022 Archaeological Appraisal report (Table 2).

Table 2. Recorded archaeological sites in close proximity to the Mt Welcome project area. Source: NZAA 2025.

ArchSite no.	Site Type	NZTM GPS Coordinates	Approximate Distance from Project Area	Description
R26/820	Military (non-Māori)	E 1758545 N 5453502	c. 100 m south of southern boundary.	Home guard defensive zig-zag trench on ridge top. WWII era site recorded in ArchSite.
R26/148	Pit/Terrace	E 1757781 N 5455286	c. 1.03 km NW of western boundary	Pits on slumped and broken spur- near the bottom.
R26/149	Pit/Terrace	E 1757581 N 5455186	c. 1.05 km NW of western boundary.	Five pits with rounded ends and raised rims. Two have external drains.
R26/120	Pit/Terrace	E 1757857 N 5455432	c. 1.15 km NW of western boundary.	Terraces and a large deep pit, rectangular hut site on summit of spur and descending down to the northeast and southeast lower spurs.
R26/226	Pit/Terrace	E 1757281 N 5455986	c. 1.86 km NW of western boundary	Eight pits. Known through local knowledge as a Kāinga.
R26/147	Pit/Terrace	E 1757481 N 5456086	c. 1.88 km NW of western boundary	Two square pits. Flat floor surface with the rear of the excavation backed by a scarp.
R26/209	Burial/ Cemetery	E 1757431 N 5456216	c. 2.01 km NW of western boundary	Burial and artefacts – stone flakes.
R26/805	Pit/Terrace	E 1759086 N 5455191	c. 760 m N of northern boundary.	One small terrace -west facing near the head of a WNW running stream gully.
R26/804	Pit/Terrace	E 1759065 N 5455212	c. 775 m N of northern boundary.	One larger and a number of smaller terraces – south and southwest facing, near head of stream gully.
R26/803	Pit/Terrace	E 1759174 N 5455255	c. 835 m N of northern boundary.	Up to six possible terraces on west facing slope on side of a north facing spur overlooking Pukerua Bay.
R26/806	Pit/Terrace	E 1759411 N 5455233	c. 900 m N of northern boundary.	Several small to medium sized terraces on west facing side of prominent knoll overlooking Pukerua Bay.
R26/256	Isolated Find	E 1758581 N 5455486	c. 1.02 km N of northern boundary.	Adze- light coloured conglomerate stone- found in ditch. Found during road construction.
R26/229	Industrial	E 1759591 N 5456132	c. 1.79 km N of northern boundary.	Brickworks. Used in the construction of railway tunnels between Pukerua Bay and Paekākāriki
R26/227	Burial/ Cemetery	E 1758641 N 5456276	1.82 km N of northern boundary.	Crouched burial in sand, no associated artefacts.
R26/259	Military (non-Māori)	E 1758914 N 5456333	c. 1.85 km N of northern boundary.	Concrete pill box built during World War II
R26/283	Military (non-Māori)	E 1759581 N 5456286	c. 2 km NW of northern boundary.	World War II concrete machine gun pillbox. Two steel reinforced wooden blast doors lying inside the structure.
R26/466	Pit/Terrace	E 1759788 N 5456331	c. 2.05 km NW of northern boundary.	c. 2x3m pit near foot of old slip scar
R26/284	Military (non-Māori)	E 1759727 N 5456380	c. 2.07 km NW of northern boundary.	Concrete World War II tank trap consisting of a concrete block with deep groove with railway iron.

R26/245	Mining-gold	E 1761449 N 5454808	c. 1.2 km NE of the east boundary.	Series of shafts and drives around a quartz reef forming a ridgeline.

7.3 New Zealand Heritage List/Rārangi Kōrero

There no sites listed on the New Zealand Heritage List/Rārangi Kōrero within or in close proximity to the proposed works (Figure 10 and Table 3). The HNZPT-listed Historic Place will not be affected by the proposed works.

Table 3. Sites listed on the New Zealand Heritage List/Rārangi Kōrero that are in close proximity to the proposed project works. Source: HNZPT.

List Entry No.	Name & Location	Description
6141	Pits/ Terraces (Wairaka), Pukerua Bay. On the coast about 1.5 km southwest of Pukerua Bay, south of Wairaka Point	Historic Place Category 2:

7.4 Porirua District Plan

There are four scheduled historic heritage buildings in the Porirua District Plan that are located in the vicinity of the project area, as per Part 4: Schedule 3 - Historic Heritage Items (Group B, see Table 4). There is one historic heritage sites in the Porirua District Plan that is located in the vicinity of the project area, as per Part 4: Schedule 4 - Historic Heritage Sites (See Table 5). There are two scheduled Sites and Areas of Significance to Māori in the Porirua District Plan that are located in the vicinity of the project area, as per Part 4: Schedule 6 - Sites and Areas of Significance to Māori (see Table 6). However, none of these scheduled sites will be affected by the proposed works within the Mt Welcome project area.

Table 4. Scheduled heritage buildings that are in the vicinity of the proposed project area, as per HH10.2 Appendix: Historic Heritage Schedule – Buildings Group B. Source: Porirua District Plan.

District Plan Reference No.	Location	Name / Description
HHB002	28 Muri Road Pukerua Bay.	Kerehoma Farm Homestead.
HHB014	Pukerua Bay: One on Ocean Parade, other on Brendan Beach.	Pukerua Bay Machine Gun Posts.
HHB015	7 State Highway 59, Pukerua Bay.	Charles Gray Homestead building.
HHB025	4 Pukerua Beach Road.	St. Luke's Church building.

Table 5. Scheduled heritage sites that are in the vicinity of the proposed project area, as per Part 4: Schedule 4: Historic Heritage Sites. Source: PCC District Plan.

District Plan Reference No.	Location	Name / Description
HHS004	Paekakariki Hill Road (Lot 3 DP 77652)	Mount Welcome Gold mine remnant. Recorded Archaeological site R26/245: *The remains of the Mount Welcome Gold Mine and a nearby shaft can be located by reference to a trig station east of Pukerua Bay. The mines are on a steep hillside with quartz outcrops. The Mount Welcome mine is described by investigations undertaken in the 1960s as being comprised of a 60 ft. shaft intersected by a*

		drive at least 100 ft. long cut into the solid rock. The mine has only moderate values for its archaeological interest and potential to reveal scientific and technical knowledge of early mining techniques. It is also of moderate value for its place in the group of local heritage places which are representative of the early extractive industries in the district.

Table 6. Scheduled Sites and Areas of Significance to Māori that are in the vicinity of the proposed project area, as per Part 4: Schedule 6: Sites and Areas of Significance to Māori. Source: PCC District Plan.

District Plan Reference No.	Location	Name / Description
SASM005	Pukerua Bay: Onepu Road (Pt Pukerua 3A6, and 10m west of Pt Pukerua 3A6 boundary into Pt Pukerua 3C1A.)	Urupā which forms a part of the former Waimapihi Pa complex
SASM006	Pukerua Bay: Pa Road (Pt Pukerua 3A6)	Urupā which forms a part of the former Waimapihi Pa complex

7.5 Site Inspection of Proposed Project Area

Several site inspections of the proposed project area were carried out by Heritage Consultant and Archaeologist Patrick Harsveldt (Heritage & Archaeology Services Ltd) in August, September, and October 2025. The site inspections involved site walkovers of the Project Area, especially areas acknowledged by Clough & Associates Ltd as not being accessed due to livestock being present at the time of their site visit.

Site inspections of Mt Welcome Station and the depression sites were undertaken on 7th / 13th / 15th / 22nd August, 2nd and 24th September, 8th / 9th and 13th October 2025. The reason for these multiple site visits was due to the size of the project area, building access permission, site access (due to livestock being present in certain areas), weather conditions and workloads.

Six locations on the farm that featured potential depression sites were identified by Clough & Associates Ltd (2019 and 2022) and were annotated on an aerial image (Figure 11). The three northern and three southern potential depression sites were relocated and archaeological spade test pits carried out at these locations to ascertain the nature of the stratigraphy. Nearby archaeological test pits were carried out to determine the typical natural stratigraphy at these locations. The topsoil was turfed and earth reinstated following the archaeological test pit investigations.

The north boundary fenceline with the Muri Block was inspected on 8th October 2025, to check for the presence of archaeological remains. Access onto the adjacent Muri Block was not possible due to forestry work taking place on the property, with a deer fence also preventing access to the wooded zone. The inspection was undertaken from the Mt Welcome side of the fenceline only.

The proposed SH59 roundabout / turn-off entrance on the western boundary of the project area was inspected on 8th – 9th and 13th October 2025, which included the native bush clad setting in between the shared path and SH59 (west side of the road reserve) and the forested pine trees on the Mt Welcome boundary. The western boundary of the Mount Welcome site showed evidence of hillside cutting due to previous earthworks on both sides of the extant SH59 road reserve.

Two buildings of unknown construction age were identified in the 2019 and 2022 reports. Site inspections of the woolshed and cottage were carried out on 22nd August and 2nd September 2025.

The site inspection also checked for any potential pre-1900 features above the extant ground surfaces. The landscape showed evidence of modern access road and farming buildings and infrastructure (a modern homestead, farm sheds and outbuildings, fencing etc).

Different areas of the farm were walked over and photographs taken (including glassing with binoculars) from various vantage points to look for potential archaeological features in the landscape.

7.5.1 Limitations & Exclusions regarding the Depression Sites

The six depression sites outlined in the 2019 and 2022 Clough & Associates Ltd reports were inspected over time due to paddocks being closed for lambing.

It should be noted that the task of relocating depressions only annotated with dots on an aerial image in the 2019 and 2022 Clough & Associates Ltd reports was not without its challenges, especially without GPS coordinates in the report to refer to. For example, depression sites 1 and 3 featured several smaller depressions on the ground surface, which all needed to be checked (to determine which one Clough & Associates Ltd were actually referring to) and to confirm that these depressions were, in fact, the result of deer rooting activity. Where spade test pit investigations confirmed natural stratigraphy due to erosion and/or likely livestock ground depressions, this provided a wider check of the area in terms of consistent natural stratigraphy.



Figure 11. Locations of depressions 1 - 6 investigated by the author as part of the 2025 site inspections (recorded as yellow dots and annotated by the author with numbers 1-6) observed in the previous Archaeological Appraisal (2019 and 2022) documents. Source: Clough & Associates.

7.5.2 Depression Site 1

Depression 1 was an oval-shaped (800 x 700 mm) depression that was relatively shallow (less than 100 mm deep). The depression was located on a relatively level slope of a hillside, at an elevation of c. 99 m above sea level.

GPS coordinates of Depression 1: E1758565 N5454050

A 300 x 300 mm archaeological spade test pit was excavated in the middle of the depression. The stratigraphy at this location was at least 160 mm of light brown - grey silty clay (Layer II encountered at a depth of 80mm), which was overlaid by c. 80 mm of brown clayey loam topsoil (Layer I). The stratigraphy of this 300 x 300 mm archaeological spade test pit featured a 40-50mm thick noticeably darker brown loam encountered immediately below the topsoil layer. This c. 80 mm wide cut/fill feature (potential posthole feature PH-D1) appeared to have cut vertically through Layer II and was visible at the base of the test pit (measuring c 80 mm x 130 mm) at a depth of 240 mm below surface. The extant topsoil (Layer I) had capped this feature.

The typical stratigraphy adjacent to this location was at least 150 mm of light brown - grey silty clay (Layer II encountered at a depth of 100mm), which was overlaid by c. 100 mm of brown clayey loam topsoil (Layer I). Nearby, an archaeological test pit encountered a variation to Layer II where the light brown - grey silty clay also contained greywacke inclusions (encountered at a depth of c.100 mm below ground surface).

Given the many undulations at this location, a number of additional archaeological spade test pits were excavated, all found to be consistent natural stratigraphy. This strengthened the findings of the aforementioned test pit as being an archaeological feature; likely a posthole.

There were no extant fence lines at this location, nor was there evidence of historic-period fence line. The sheltered surroundings (from certain wind directions) of the depression site, located on a relatively level slope of a hillside adjacent to nearby stream, would have made the site potentially suitable for gardening. It is postulated that this potential Māori posthole feature could be associated with a windbreak structure for gardening or shelter structure at this location. Further archaeological investigation of this area will confirm the extent of this potential archaeological feature.

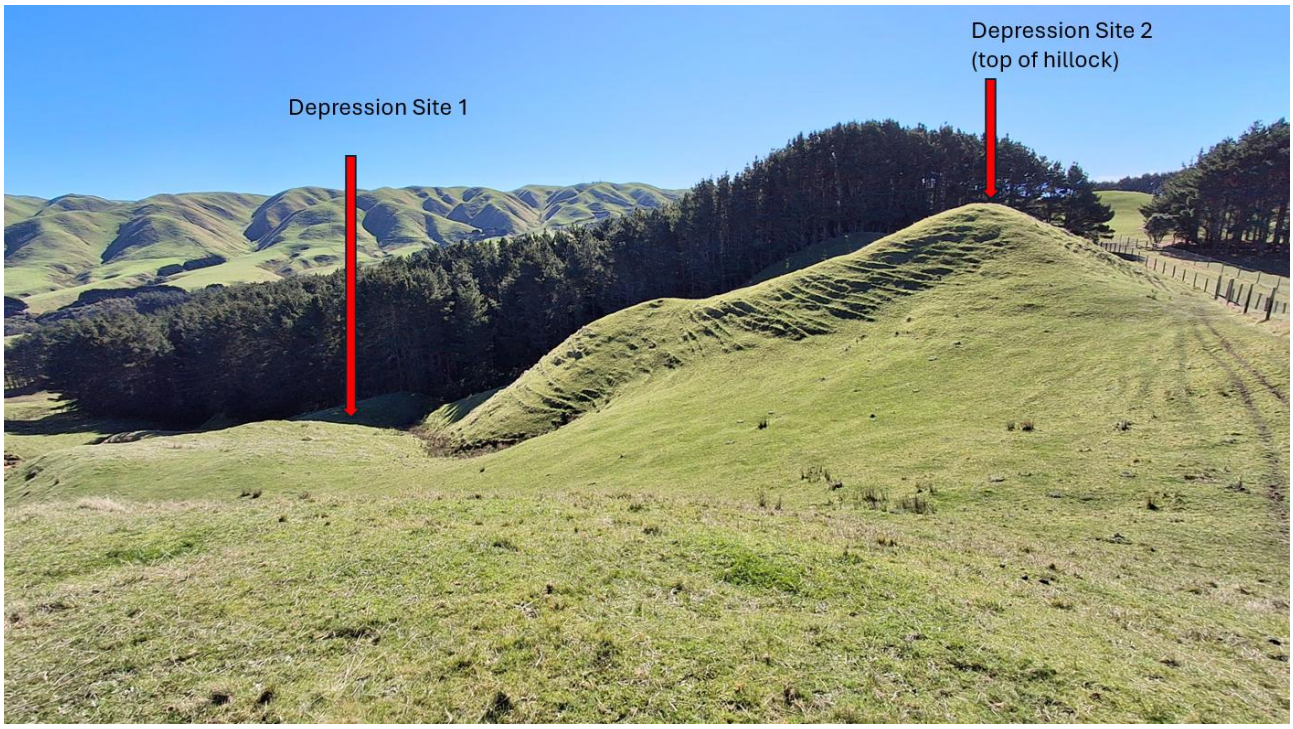


Figure 12. View (from the hillock north of Depression Site 3) looking north at Depression Sites 1 and 2. Note that the deer gates to the access road are depicted at the far RHS corner of the photograph.



Figure 13. View looking southwest showing the location of Depression 1, which featured a potential post hole feature in the archaeological spade test pit.



Figure 14. View looking east showing the location of the Depression 1 site (foreground), which featured a potential post hole feature in the archaeological spade test pit. Depression site 2 is located on the summit of the hillock in the distance (indicated by the arrow).



Figure 15. Potential post hole feature recorded within an observed c.900 mm diameter depression (Depression Site 1).



Figure 16. Typical stratigraphy encountered in the vicinity of Depression Site 1.

7.5.3 Depression Site 2

Depression site 2 was a large oval-shaped depression (c. 4.5 m x 1.4 m) and approximately 300 mm deep, which was located at the summit of the hill (c. 136m above sea level).

GPS coordinates of Depression 2: E1758687 N5454068

The stratigraphy of this 300 x 300 mm archaeological spade test pit featured at least 180 mm of yellow - light brown clayey silt (Layer II encountered at a depth of 100mm), which was overlaid by c. 100 mm of brown clayey loam topsoil (Layer I). Nearby, an archaeological test pit encountered a variation to this stratigraphy: at least 80 mm of yellow clayey silt (Layer II) was encountered at a depth of 300mm below, which was capped by a much thicker layer of brown clayey loam (Layer I).

No archaeological material was observed in the archaeological spade test pit. However, given the substantial size and shape of this feature on top of such a prominent hillock location, this potential Māori pit feature has been recorded as recorded archaeological site **R26/886** in the NZAA ArchSite database as a result of the archaeologist's 2025 site inspections for this AAE.



Figure 17. View looking north from the summit of the hillock (elevation: c. 136 m) showing the location of the Depression 2 site (foreground), which featured only natural stratigraphy in the archaeological spade test pit.



Figure 18. No archaeological features/material recorded within an observed c. 4.5 m x 1.4 m depression (Depression Site 2) located on top of a hillock.



Figure 19. Typical stratigraphy encountered in the vicinity of Depression Site 2.

7.5.4 Depression Site 3

Depression site 3 was an oval-shaped depression (c. 900 mm x 800 mm wide) that was relatively shallow (less than 100 mm deep). The depression was located on a gentle slope at an elevation of c. 125 m above sea level, which was below a hillock to the northeast.

GPS coordinates of Depression 3: E1758650 N5453878

The stratigraphy of this 300 x 300 mm archaeological spade test pit featured at least 80 mm of brown silty clay with greywacke pebble/cobble inclusions with multiple charcoal fragments (Layer II encountered at a depth of 120mm. This was overlaid by c. 120 mm of brown clayey loam topsoil (Layer I). It is postulated that the charcoal fragments could be from a modified soil matrix associated with Māori gardening activity at this particular location. Alternatively, the presence of charcoal may be an indicator of a nearby Māori archaeological firepit/oven feature. Further archaeological investigation of this area will confirm the extent of this potential archaeological feature.

Nearby, archaeological test pits featured similar stratigraphy to Layer II but without any evidence of charcoal fragments. Given the many undulations at this location, a number of other archaeological spade test pit holes were excavated, however these locations were disregarded due to the consistent natural stratigraphy encountered.



Figure 20. View looking west showing the location of Depression 3 (indicated by the red arrow), which featured potential archaeological charcoal material in the archaeological spade test pit.



Figure 21. View looking southeast showing the location of Depression Site 3 (indicated by the red arrow), which featured potential archaeological charcoal material in the archaeological spade test pit.



Figure 22. Charcoal material recorded within an observed c. 900 mm diameter depression (Depression Site 3).



Figure 23. Typical stratigraphy encountered in the vicinity of Depression Site 3.

7.5.5 Depression Site 4

Three potential depression locations were identified on the ridgeline of a hillock whilst trying to relocate Depression Site 4 (identified in the Clough & Associates Ltd 2019 report).

One was disregarded during archaeological test pit investigations due to the presence of greywacke outcrop and cobbles encountered at a depth of 120 mm (within the brown clayey loam topsoil).

The two remaining potential depression locations were oval-shaped depressions (c. 900 mm x 800 mm) and approximately 100 mm deep, which were located on the gentle sloped ridgeline of the hill (both c. 145m above sea level).

GPS coordinates of Depression 4a: E1758512 N5453672

GPS coordinates of Depression 4b: E1758510 N5453688

The stratigraphy of the 300 x 300 mm archaeological spade test pit at potential depression site 4a featured at least 70 mm of yellow - light brown silty clay with weathered greywacke pebble and inclusions (Layer II encountered at a depth of 140mm), which was overlaid by c. 140 mm of brown clayey loam topsoil (Layer I).

The stratigraphy of the 300 x 300 mm archaeological spade test pit at potential depression site 4b featured at least 140 mm of yellow - light brown silty clay (Layer II encountered at a depth of 120mm), which was overlaid by c. 120 mm of brown clayey loam topsoil (Layer I).

No archaeological material was observed in these archaeological test pits. Therefore, both potential depression sites were deemed to be natural stratigraphy. Another nearby test pit in the vicinity featured similar natural stratigraphy.



Figure 24. View looking southwest from Depression Site 4a looking towards the south boundary fence. This elevated location on the southern side of the project area would have allowed for opportune views over Taupo Swamp in the valley below, Porirua Harbour and Mana Island in the distance.



Figure 25. View looking north from Depression Site 4a looking towards Pukerua Bay and the valley below. This elevated location on the southern side of the project area would have allowed for opportune views over Taupo Swamp in the valley below, Pukerua Bay and Kāpiti Island in the distance.



Figure 26. Natural Stratigraphy recorded within an observed depression (Depression Site 4a).



Figure 27. Natural Stratigraphy recorded within an observed depression (Depression Site 4b).

7.5.6 Depression Site 5

Two potential depression locations were identified on the ridgeline of a hillock whilst trying to relocate Depression Site 5 (identified in the Clough & Associates Ltd 2019 report).

The two potential depression locations were oval-shaped depressions (c. 1m x 900 mm) and approximately 100 mm deep, which were located on the gentle slope of the hill (between 137 m and 138 m above sea level).

GPS coordinates of Depression 5a: E1758562 N5453675 (c. 137 m above sea level).
GPS coordinates of Depression 5b: E1758564 N5453671 (c. 138 m above sea level).

The stratigraphy of the 300 x 300 mm archaeological spade test pit at potential depression site 5a featured at least 180 mm of yellow - light brown clayey silt with weathered greywacke pebble inclusions (Layer II encountered at a depth of 180mm), which was overlaid by c. 120 mm of brown clayey loam topsoil (Layer I).

The stratigraphy of the 300 x 300 mm archaeological spade test pit at potential depression site 5b featured at least 130 mm of yellow - light brown clayey silt with greywacke pebble inclusions (Layer II encountered at a depth of 140mm), which was overlaid by c. 140 mm of brown clayey loam topsoil (Layer I).

No archaeological material was observed in these archaeological test pits. Therefore, both potential depression sites were deemed to be natural stratigraphy. Another nearby test pit in the vicinity featured similar natural stratigraphy.

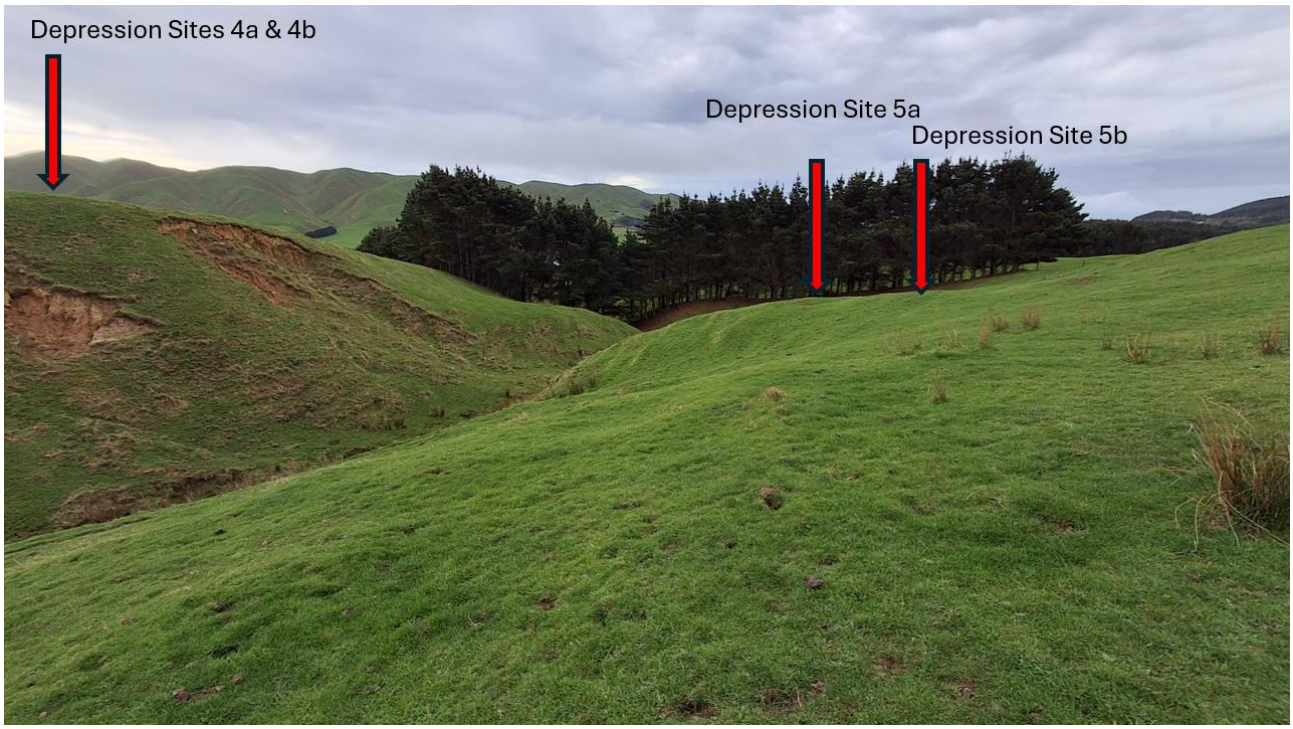


Figure 28. View looking north from the south boundary fenceline showing the locations of potential Depression Sites 5a and 5b, which featured only natural stratigraphy in the archaeological spade test pits.



Figure 29. Natural Stratigraphy recorded within an observed depression (Depression Site 5a).



Figure 30. Natural Stratigraphy recorded within an observed depression (Depression Site 5b).

7.5.7 Depression Site 6

Two potential depression sites were identified on the slope located closest to the southern boundary whilst trying to relocate Depression Site 6 (identified in the Clough & Associates Ltd report).

Depression site 6a was an oval-shaped depression (c. 900 mm x 800 mm wide) that was relatively shallow (less than 100 mm deep). The depression was located on a gentle slope at an elevation of c. 154 m above sea level, which was below the ridgeline to the east.

GPS coordinates of Depression 6a: E1758574 N5453650 (c. 154 m above sea level).
GPS coordinates of Depression 6b: E1758568 N5453648 (c. 152 m above sea level).

The stratigraphy of the 300 x 300 mm archaeological spade test pit at potential Depression Site 6a featured at least 170 mm of yellow-light brown silty clay encountered at a depth of 110mm and which contained multiple charcoal fragments (Layer II.) This was overlaid by c. 100 mm of brown clayey loam topsoil (Layer I). The charcoal fragments were noted at depths of between 160 mm and 200mm below the ground surface.

The second potential depression site (6b) was located on a gentle slope at an elevation of c. 152 m above sea level, which was approximately 9.5 m downhill of potential depression feature 6a. Potential depression site 6b was approximately 800 mm wide. An archaeological test pit featured similar stratigraphy to Layers I and II, including the charcoal fragments.

The stratigraphy of this 300 x 300 mm archaeological spade test pit at potential Depression Site 6b featured at least 180 mm of yellow-light brown silty clay encountered at a depth of 100mm which contained multiple charcoal fragment inclusions (Layer II). This was overlaid by c. 100 mm of brown clayey loam topsoil (Layer I).

Another nearby test pit to the south featured similar stratigraphy but without any evidence of charcoal fragments. Given the many undulations at this location, a number of other archaeological spade test pit holes were excavated, however these locations were disregarded due to the consistent natural stratigraphy encountered.

Whilst there is potential for the charcoal to have been washed downhill in a heavy rainfall event, this is considered unlikely as both test pits featured charcoal at depth.

It is postulated that the charcoal fragments could be from a modified soil matrix associated with Māori gardening activity at this particular location. Alternatively, the presence of charcoal may be an indicator of a nearby Māori archaeological firepit/oven feature. Further archaeological investigation of this area will confirm the extent of this potential archaeological feature.



Figure 31. View looking east showing the uphill location of Depression 6a with Depression 6b in the foreground, which featured potential archaeological charcoal material in the archaeological spade test pits.



Figure 32. Charcoal material recorded within an observed c. 900 mm diameter depression (Depression Site 6a).



Figure 33. Charcoal material recorded within an observed c. 900 mm diameter depression (Depression Site 6b).

7.5.8 Northern Boundary with the Adjacent Muri Block

The north boundary fenceline with the Muri Block was inspected on 8th October 2025, to check for the presence of archaeological remains. Access onto the adjacent Muri Block was not possible due to forestry work taking place on the property, with a deer fence also preventing access to the wooded zone. The inspection was undertaken from the Mt Welcome side of the fenceline only and no archaeological remains were observed.

7.5.9 NZTA SH59 Proposed Roundabout area & Western Boundary of Project Area

An inspection of the proposed SH59 roundabout / turn-off entrance on the western boundary of the project area indicated that there is potential for unrecorded archaeological remains to be present below the ground surface in the native bush clad setting in between the shared path and SH59 (west side of the road reserve) and the forested pine trees on the Mt Welcome boundary.

The native bush setting was well established and covered much of the ground surface. The reserve also featured gorse, blackberry and other invasive introduced plants, which was impenetrable in places and made inspection of the ground difficult. No archaeological features were observed.

The western boundary of the Mt Welcome site showed evidence of previous hillside cutting earthworks to the south of the existing driveway entrance. It is acknowledged that previous earthworks have taken place on both sides of the extant SH59 road reserve. However, the proposed SH59 roundabout will require earthworks beyond the existing road alignment which may affect potential archaeological remains located outside of the original road corridor.



Figure 34. View of the bush clad area on the west side of SH59 opposite the existing Mt Welcome entrance, which shows the stream beside the road reserve (n.b.: the Mt Welcome sign in the distance).



Figure 35. View of the typical dense bush-clad setting encountered within the SH59 roundabout project area.

7.6 Building Inspections within the Proposed Project Area

7.6.1 Inspection of Potential Pre-1900 Building: Cottage

The cottage was a timber frame dwelling clad in plain weatherboard (overlapping planks without grooves or chamfers) with a gabled roof and bullnose veranda roof clad in corrugated iron. There was evidence of lean-to extensions to the rear, including the presence of cover boards concealing joints, differences in window design, and differences in stylistic detailing. It was not possible to view inside the roof void (of the gable) or the building foundations.

GPS coordinates of cottage: E1758218 N5454349



Figure 36. Setting context view of the cottage and modern garage located on the west side of Mt Welcome Station.



Figure 37. Setting context view of the front (west) elevation of the cottage and modern garage (left) with the nearby woolshed in the distance (on the RHS of photograph).



Figure 38. Context view of the cottage showing the south gable end side where the original brick chimney would have been located.



Figure 39. Context view of the cottage looking northwest.



Figure 40. Front (west) elevation of cottage.



Figure 41. South gable end elevation of the cottage which shows evidence of rear lean-to extensions. Note the later Bungalow decorative style door, which does not match any of the rest of the earlier building fabric.



Figure 42. Rear (east) elevation showing evidence of two separate extensions, with the extant rear entrance door and bathroom (RHS of photograph) being the most recent external addition.



Figure 43. Rear (east) elevation showing evidence of different sash window features and dimensions on the separate extensions.



Figure 44. View of the north gable end elevation of the cottage (from northeast corner) which shows evidence of rear lean-to extensions. Note the vertical batten on the exterior wall which covers the weatherboard lines between the original and the rear lean-to addition (which is not present on the south elevation).



Figure 45. View of the north gable end elevation of the cottage (from the northwest corner) which shows evidence of rear lean-to extensions. Note the vertical batten on the exterior wall which covers the weatherboard lines between the original and the rear lean-to addition (which is not present on the south elevation).



Figure 46. View of the main open-plan interior space from the front door. Note the ceiling beam that delineates the former rear wall of the gabled cottage (Phase 1 of Construction) from the first lean-to addition (Phase 2 of Construction).



Figure 47. View of the extant open plan living room – kitchen area which now features a woodburner with internal flue which has replaced the brick chimney and fireplace on this wall. Note the evidence of the former internal wall as seen by cracking in the existing plasterboard underneath the ceiling beam (outlined in red).



Figure 48. View of the two rooms on the north side of the dwelling as viewed from the kitchen. The middle doors appear to be a later addition cupboard.



Figure 49. View of the two rooms on the north side of the dwelling as viewed from the kitchen. The middle doors appear to be a later addition cupboard (likely installed as part of interior modifications – Phase 4 of Construction).

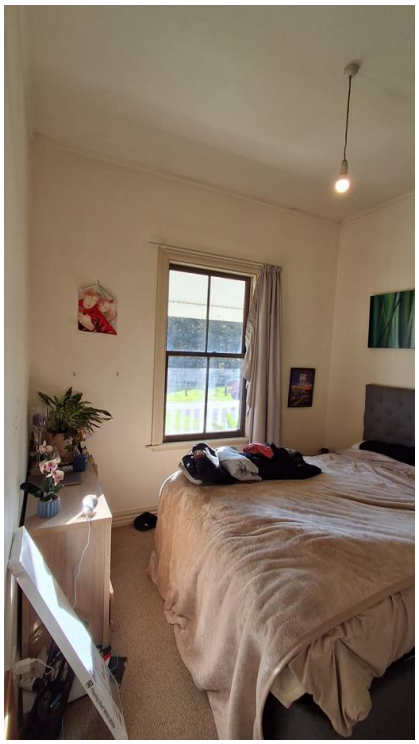


Figure 50. View of the northwest corner (front) bedroom which features very little period building fabric other than the sash windows, architraves and skirting boards.

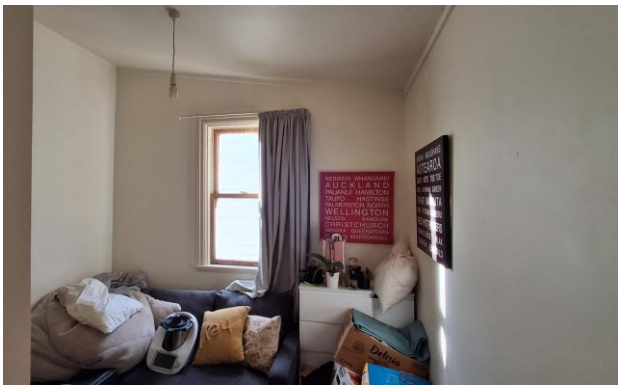


Figure 51. View of the middle room on the north side which features very little period building fabric other than the sash windows and architraves.



Figure 52. View of the back door entrance's corridor space looking east from the kitchen area. Note the exposed floorboards which do not show any evidence of former walls.



Figure 53. View of the modern bathroom (Phase 3 of Construction), which was accessed from the back door entrance's corridor space.

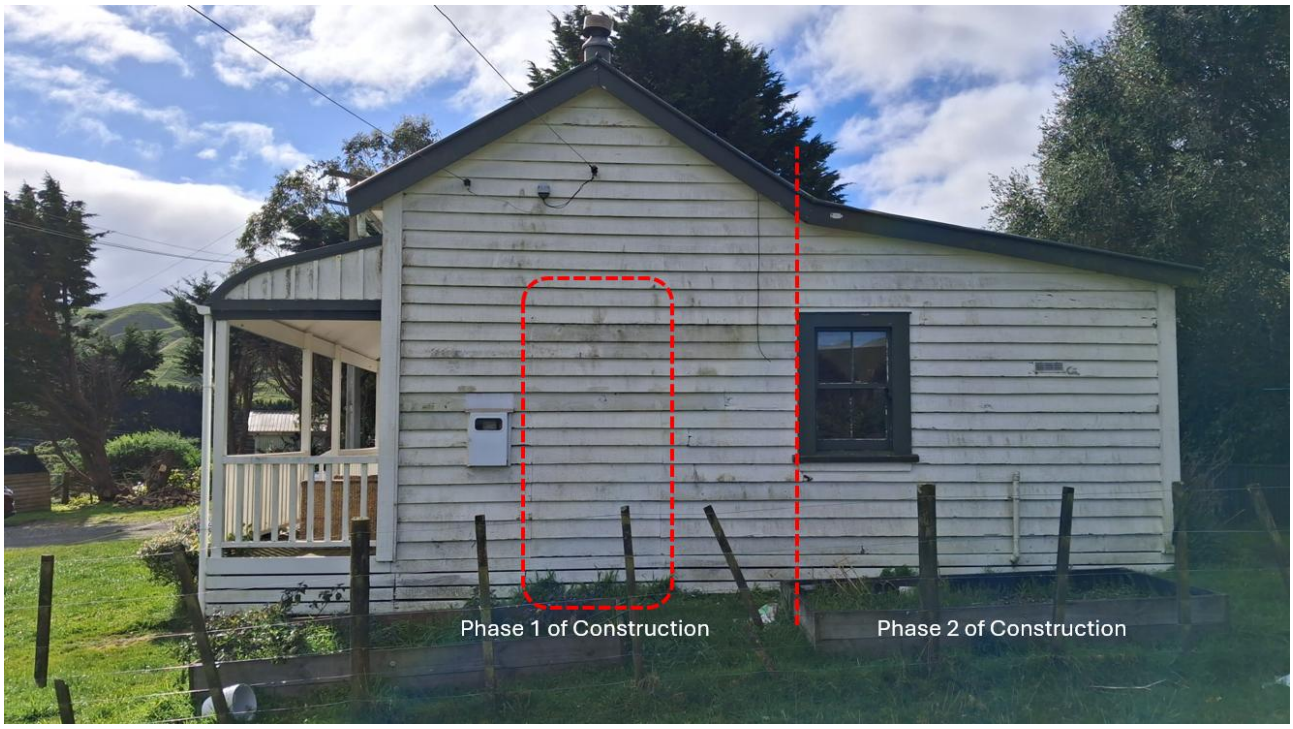


Figure 54. Gable end (south) elevation of the cottage which shows the indicative red line where the lean-to extension (Phase 2 of Construction) extends from the original gabled box cottage form (Phase 1 of Construction). Note the likely location of the original external brick chimney as evidenced by the cut lines on the replacement weatherboards (outlined in red).

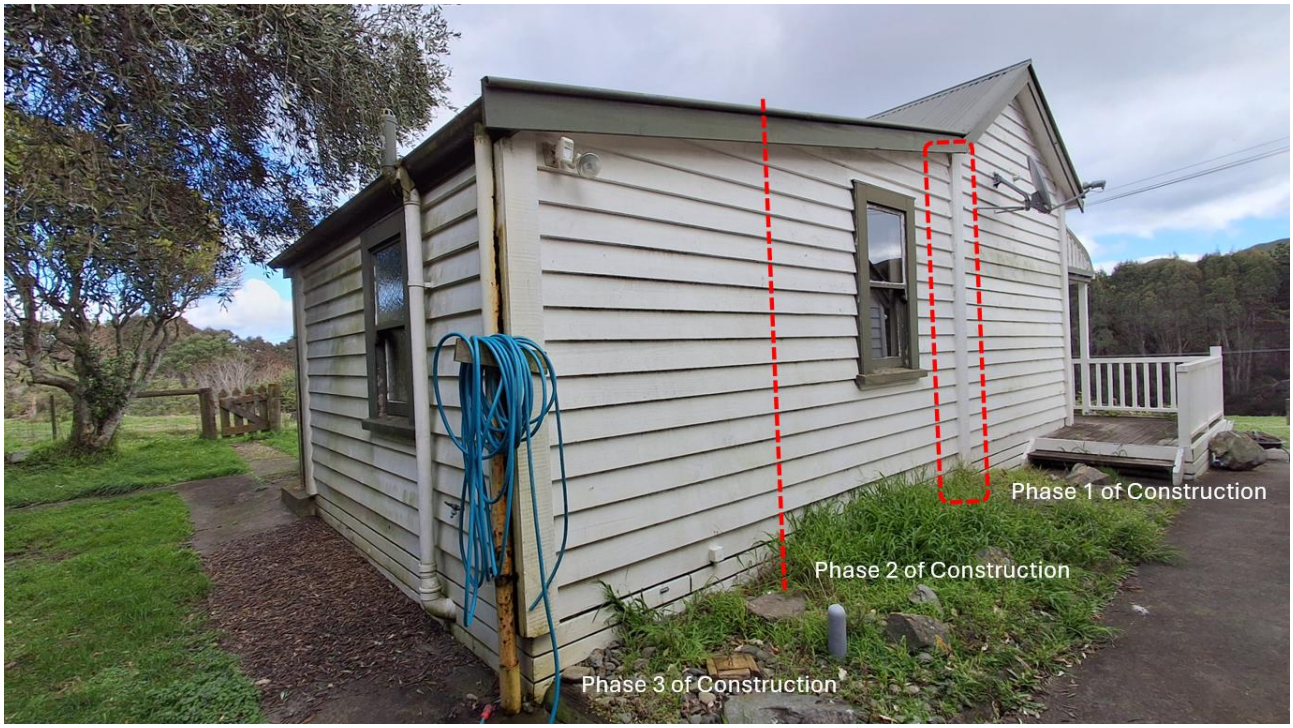


Figure 55. Gable end (north) elevation of the cottage which shows the vertical batten (outlined in red) where the first lean-to extension (Phase 2 of Construction) extends from the original gabled box cottage form (Phase 1 of Construction). The red line indicates where the most-recent lean-to extension (Phase 3 of Construction) extends beyond the first lean-to form (Phase 2 of Construction).



Figure 56. Interior of south elevation sash window showing unpainted timber with the patina of age and with a modern sash window lock fixture. Note the evidence of holes and pressed outline where the previous fixture was located (scale is in 100 mm increments).



Figure 57. Closeup of one of the sash window timber frame with ogee horn decoration with the unpainted interior showing the patina of age. Note the period timber architrave.

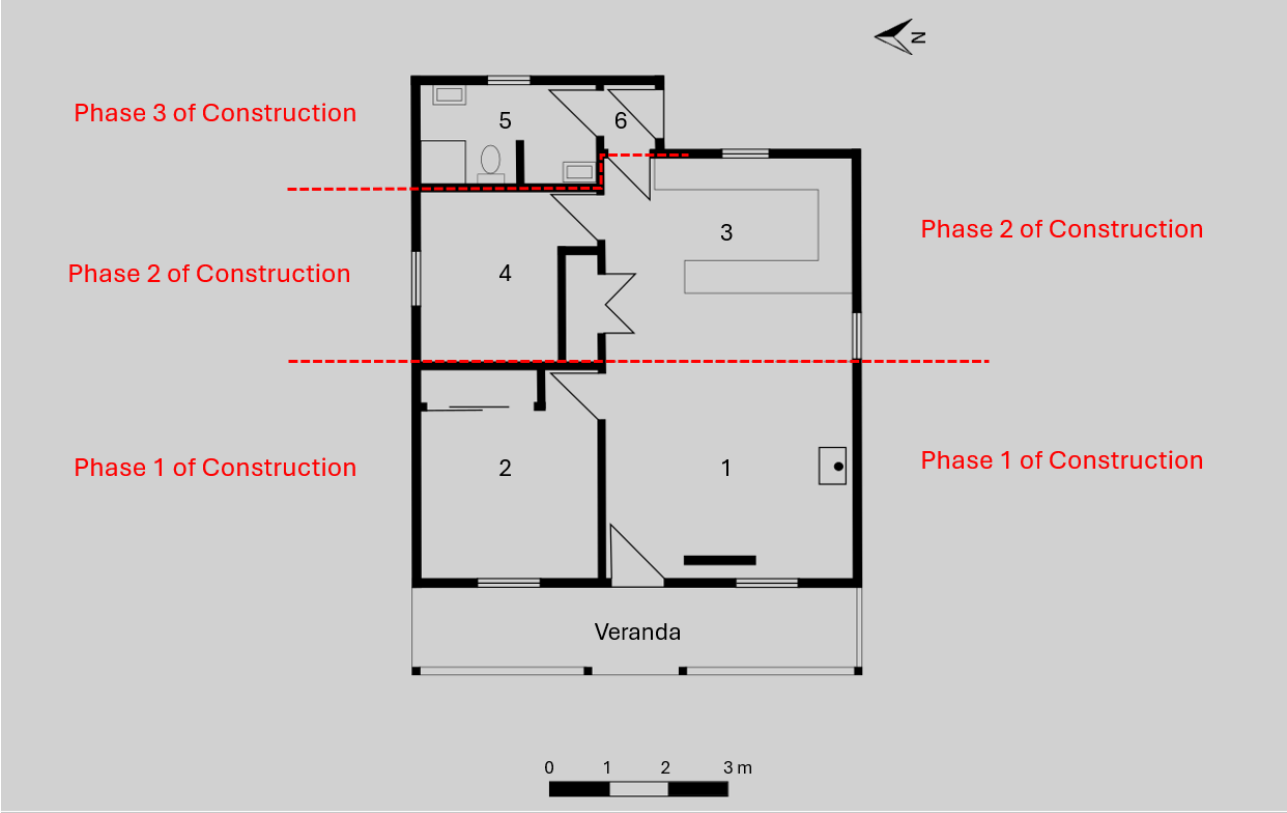


Figure 58. Floor plan of cottage showing the postulated phases of construction, including the original gable end cottage (Phase 1), first lean-to addition in the southeast corner (Phase 2), second lean-to bathroom and extant rear door entrance (Phase 3), and the most recent interior open plan and modernisation modifications (Phase 4).

7.6.2 Summary of Findings: Rural Cottage

The site visit confirmed the location of one above-ground archaeological site, namely the extant cottage. This dwelling is believed to have been constructed prior to 1900 on the basis of key building features and materials.

The oldest interior fabric identified were the double-hung timber sash window frames, four-panel doors, moulded timber architraves, and skirting boards. The interior plasterboard and modern timber TG&V linings may have covered remaining intact original fabric such as timber sarking. Generally, door hardware, fixtures and fittings had all been replaced over time.

Although New Zealand cottages and villas were popular forms of domestic dwellings constructed in both the 19th and early 20th centuries, these buildings experienced stylistic and building construction detail changes over time that provide clues as to their age. For example, early cottages and villas built prior to 1900 typically featured plain circular-sawn weatherboards as they were easy to mill because they did not require any grooves or other form of shaping. By 1900, dressed rusticated weatherboards had replaced these as the popular cladding on newly constructed cottages and villas. The presence of plain weatherboard at the cottage therefore suggests that it was constructed in the late 19th century, prior to the common use of rusticated weatherboard.

Other features that may corroborate this are hidden and could only be revealed through intrusive investigation; for example, the use of mortice and tenon joints in the building frame rather than nails.

On the basis of key 19th century building features and components deemed to be the original fabric of the dwelling, the cottage has been recorded as recorded archaeological site **R26/885** in the NZAA ArchSite database as a result of the archaeologist's building inspection.

7.6.3 Inspection of the Potential Pre-1900 Building Woolshed

The woolshed was located east of the cottage, further along the access driveway. The was constructed of circular sawn timber and clad in corrugated iron. The building showed evidence of at least two phases of construction, the first being the gabled woolshed with workshop that rested on roughsawn totara piles (Phase 1 of Construction). A modern lean-to addition was later made to the east side of the gabled building (Phase 2 of Construction).

GPS coordinates of woolshed: E1758264 N5454269



Figure 59. South elevation of the woolshed.



Figure 60. West elevation of the woolshed.



Figure 61. North elevation of the woolshed (with modern lean-to extension obscured by a tree on LHS of photograph).



Figure 62. East elevation of the woolshed with the modern lean-to extension in the foreground.



Figure 63. Context view looking west of the woolshed building adjacent to the farm road.



Figure 64. Context view of the sheep yards looking south towards woolshed.



Figure 65. View of the shearing sliding doors on the west elevation.



Figure 66. Large rough cut totara piles underneath the gabled woolshed's building footprint.



Figure 67. Interior of the woolshed looking north showing the sheep pen partitions taking up the majority of the floor area. Note the shearers' graffiti dating to the 1930s on the boards of the sheep pens.



Figure 68. View of the west side shearing bay area.



Figure 69. View of the south side entrance area with the barn-style ledge-braced door on the RHS and the thoroughfare to the extension in the distance. Note the graffiti dated 1938 on the overhead timber framing.



Figure 70. View of the shearing bay showing three operative overhead Lister shearing machines above the windows/sliding doors. Note the two former shearing stations in the foreground, now boarded up with corrugated iron. However, the makeshift shelving on top of the dwangs (nogs) are still in situ either side of the former window openings.



Figure 71. View of the shearing bay showing three operative overhead Lister shearing machines above the four windows, each with a sliding door.



Figure 72. View of the lean-to workshop on the west side of the building.



Figure 73. Interior photograph of the modern east side extension (looking north)



Figure 74. Interior photograph of the modern east side extension (looking south)

7.6.4 Summary of Findings: Woolshed

The woolshed was determined to be post-1900 and therefore not archaeological in nature.

The earliest graffiti observed on the interior walls and structure near the main south entrance door was from the mid-1930s. However, Reginald Stace Wall and Isabella Wall were property owners prior to this date and there is newspaper evidence that Mt Welcome wool bales were sold at local wool auctions in the 1920s ('The Wool Market,' *Dominion*, 20/08/1921 p9; 'Wellington Wool Sales', *New Zealand Times*, 18/11/1925, p11). On this basis, the extant woolshed building may already have been constructed (with no shearers' graffiti from this earlier period yet found in the interior of the extant building), or an earlier former building may have been used for shearing at Mt Welcome Station, potentially at the same location as the extant woolshed.

8 Research Results

Although there are a number of recorded Māori and historic-period archaeological sites in the vicinity of the proposed project works in the NZAA ArchSite database, none of these recorded archaeological sites are close enough to the Mt Welcome project area to be affected by project works.

The 2025 site inspections of various parts of the project area included a site walkover of various parts of the Mt Welcome project area, including the areas known as the Lower Terrace (western extent of the site), Upper Terrace (middle extent of the site), and the Lucas Block (eastern extent of the site).

The proposed SH59 roundabout / turn-off entrance on the western boundary of the project area was also inspected, which included the native bush clad setting in between the shared path and SH59 (west side of the road reserve) and the forested pine trees on the Mt Welcome boundary. The western boundary of the Mount Welcome site showed evidence of hillside cutting due to previous earthworks on both sides of the extant SH59 road reserve. No archaeological features and/or material was observed during an inspection of the proposed SH59 roundabout and western boundary, and northern boundary with the Muri Block.

The six depression sites on the Upper Terrace of the Mt Welcome project area noted in the Clough & Associates Ltd report were inspected and archaeological spade dug test pits carried out. Charcoal fragments were recorded within Layer II of three different potential depression locations. The largest Depression Site (2) on top of a hillock along the ridgeline of the Upper Terrace was determined to be a potential Māori pit feature and has been entered into the NZAA Archsite database as recorded archaeological site R26/886.

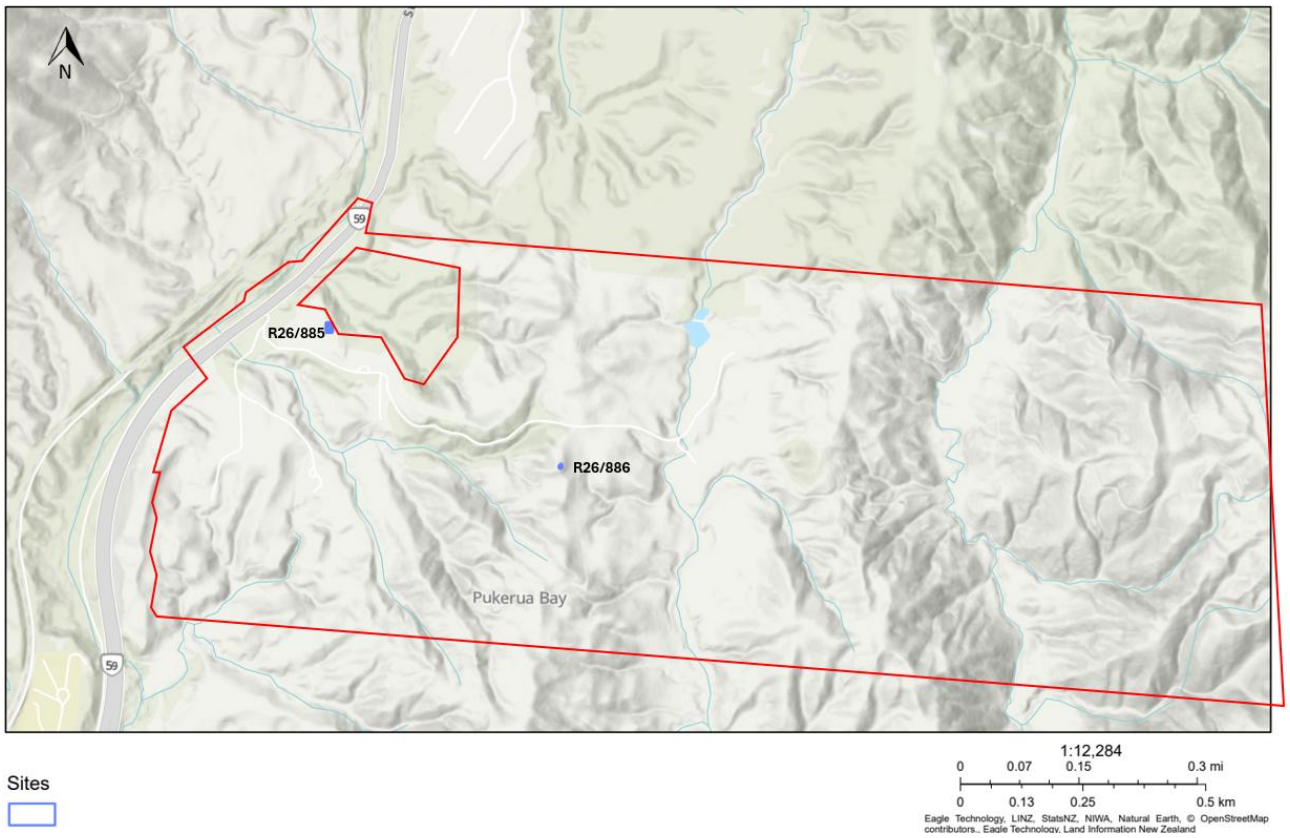


Figure 75. Annotated map of the project area, showing recorded archaeological sites R26/885 (19th Century Cottage) and R26/886 (Potential Māori Pit), both outlined in blue, within the proposed Mt Welcome Station subdivision project area (indicative outline in red). Source NZAA ArchSite November 2025.

The archaeological test pit investigations of three potential depressions (Depression Sites 3 / 6a and 6b) featured charcoal fragments at a depth of between 160 mm – 200 mm below surface (in Layer II) that may be an indication of a potential fire pit/oven feature in the vicinity. Other nearby spade test pits were devoid of charcoal fragments, which do not appear to suggest a wider forest burn-off event in this area. There is also potential that Layer II may be a modified pre-1900 Māori gardening soil at these depression locations.

The recorded archaeological sites in the wider area of Pukerua Bay indicate an archaeological landscape of pre-European and historic period Māori and early settler activity and settlement. On this basis, there is potential for pre-1900 Māori remains to be encountered on the existing ground surfaces and under the topsoil during subdivision project earthworks. There is also potential for project earthworks to encounter historic-period archaeological sites underneath the extant ground surface. There is also potential that an earlier former building may have been used for shearing at Mt Welcome Station, and that this is located within the building footprint of the extant woolshed.

On the basis of the author's site inspections, the pre-1900 cottage and Depression Site 2 (a potential Māori pit feature) were entered into the NZAA ArchSite database. The standing 19th century cottage building (recorded archaeological site **R26/885**) and the potential Māori pit feature (recorded archaeological site **R26/886**) will be affected by proposed project works. The archaeological and historical background research carried out indicates that there is the potential for unrecorded archaeological sites to be encountered during the proposed project works at Mt Welcome Station, which are likely to be related to 19th century rural activity and settlement and potential pre-1900 Māori occupation and gardening activity.

9 Archaeological and Other Values

9.1 Evidence of Archaeological Sites

The research carried out has indicated that unrecorded archaeological sites associated with pre-1900 historic period occupation and rural activity may be affected by proposed project works. The site inspections of the project area have also indicated that potential Māori archaeological sites associated with occupation and/or gardening activity may be affected by the proposed works. The archaeological values of these sites are assessed in Section 9.2 (Table 7 - Table 8).

9.2 Archaeological Values

Archaeological values relate to the potential of a place to provide evidence and information on the history of New Zealand. This is framed within the existing body of archaeological/cultural knowledge and current research. Statements on archaeological values of the project area are made below regarding the HNZPT guidelines for writing archaeological assessments.

The following criteria are accounted for to assess archaeological values from within the project footprint:

Condition – is the site in good condition?

Rarity or uniqueness – is the site notable in any other way in comparison to other sites of its kind?

Contextual value – context or group value arises when the site is part of a group of sites, which taken together as a whole, contributes to the wider values of the group or archaeological, historic or cultural landscape. There are potentially two aspects to the assessment of contextual values; first, the relationship between features within a site, and second, the wider context of the surroundings or setting of the site.

Information potential – what current research questions or areas of interest could be addressed with information from the site?

Amenity value (e.g., educational, visual, landscape) – does the site(s) have potential for public interpretation, access and education?

Cultural associations – does the site(s) have any special cultural associations for any particular communities or groups, e.g., Tāngata Whenua, European, or Chinese.

Table 7 and Table 6 outline the archaeological values of the archaeological sites that could be affected by the proposed works.

Table 7. The archaeological values for potential Māori occupation and/or activity sites (such as road surfaces, footpaths, culverts and drains) formed prior to 1900, that may potentially be affected by the proposed works.

Value	Potential archaeological features related to pre-1900 Māori occupation/activity
Condition	Test pit investigations of depressions on the farm have found evidence of a potential Māori pit feature (Depression Site 2 – now recorded as recorded archaeological site R26/886), a post hole feature (within the archaeological test pit of Depression Site 1), and charcoal flecks underneath the topsoil in three archaeological spade test pits (3 / 6a / 6b), which indicate potential evidence of pre-1900 Māori occupation/activity. As these sites are below ground, their condition is not well understood but may have been unknowingly damaged by livestock grazing, farm infrastructure improvements and/or planting over time.
Rarity/uniqueness	Archaeological evidence of Māori sites is not uncommon in the Porirua region. However, these are not as prevalent as in other parts of New Zealand. Overall, such sites are of moderate rarity (depending on the locality, context, and whether such remains have previously been recorded in this particular part of Porirua).
Contextual value	The context of these sites is an inland farm overlooking Pukerua Bay and with views of Taupo Swamp. The c. 140 m – 154 m high peaks of the hillocks and ridgeline slopes (where the potential Depression Sites are located) have views over parts of the Pukerua Bay coastline and Kāpiti Island to the north, and also views of Porirua Harbour and Mana Island / Cook Strait to the south and southwest, which suggest an opportune site for lookout scouts to be based. However, such short-term look-out activity may not necessarily have left a substantial archaeological footprint, unless longer-term encampment activity was also required. Some slopes that are well drained and sheltered from the prevailing winds may have been suitable for Māori gardening sites. Overall, the contextual value of such sites would be moderate.
Information potential	The information potential of these sites is high, in part because potential sites are able to be investigated and dated through archaeological methods. There is likely also a high degree of intactness due to the limited development on the site to date. These sites can provide information about the activity/occupation of the project area and potentially contribute to information about settlement patterns of the Pukerua Bay area and wider Porirua region, the extent of potential gardening and settlement activity and/or the period of occupation that took place there, and what the site was used for.
Amenity value	Low. While such sites can have some interpretive value, it would not typically be possible to leave their subsurface location(s) exposed within an active subdivision development for the public to appreciate. However, should significant sites be found, there is an opportunity to provide interpretive signage on the closest future public reserve and/or road reserve footpath to inform the public about the significance of such a potential archaeological site.
Cultural associations	Archaeological sites of this type have Māori cultural values. It is recommended that consultation with tāngata whenua is undertaken in regard to this.

Table 8. The archaeological values for the historic-period cottage, a farm-related occupation site constructed prior to 1900, that will be affected by the proposed project works (demolition of cottage).

Value	19th century Cottage
Condition	The cottage located on the west side of the project area is believed to have been constructed prior to 1900. Although the interior is heavily modified with modern fabric and fittings, the exterior fabric is less modified with plain weatherboard cladding and double-hung timber sash windows that are likely to be original fabric. Original floor/wall/ceiling fabric is likely to be underneath the extant modern interior materials. There is evidence in the ceiling and walls that a wall dividing the extant living room from the kitchen space at the rear has been removed. This wall is positioned below the transition of the gabled roof to the lean-to. The cottage's original brick chimney has been replaced by a modern woodburner with free standing flue. The rear of the cottage has a later lean-to addition, which has the potential to consist of two subsequent extensions over time. Further evidence of original fabric and potential building modification over time would likely still be *insitu* underneath the modern interior linings. The foundations of the original fireplace and/or hearth, and original piles may still be intact on the ground surface. There is also potential for rubbish pits to be found at the rear of the former extent of the original cottage (within the extant building footprint) and within the grounds. Any potential historic-period archaeological remains (including the building itself) may have been damaged by the ongoing repair and maintenance of the property over the years.
Rarity/uniqueness	Archaeological evidence of pre-1900 housing is not uncommon in New Zealand. However, despite there being numerous 19th century dwellings in the wider Wellington region, very few examples have been examined archaeologically in this part of the country. There are few pre-1900 houses that have been archaeologically investigated in the Porirua area, especially a cottage in a rural setting. Overall, such sites in the Porirua region are of moderate rarity (on the basis of locality, context, and whether such remains have previously been recorded in this particular part of Porirua).
Contextual value	The context of these sites is a large tract of rural land on Mt Welcome Station, Pukerua Bay. Overall, the contextual value of these sites is moderate.
Information potential	The information potential of these sites is moderate, especially given that the interior has been modernised. However, in the event of demolition, there is moderate to high information value to be collected during building recording during demolition work and/or foundation removal earthworks at this location. The standing building and its components can provide information about the pre-1900 historic-period rural settlement in this part of Porirua, including evidence of the nature/extent of onsite construction of the cottage and whether there is evidence of whether it was transported to site (in kitset component form) or primarily constructed from scratch on site.
Amenity value	Low. In the event of demolition or relocation, the cottage dwelling will no longer be insitu on site and its foundations would be removed regardless of whether it was demolished or potentially able to be relocated. While such sites can have some interpretive value (and could potentially feature interpretive signage nearby), it would not typically be possible to leave their subsurface location(s) exposed on this development for the public to appreciate.
Cultural associations	Archaeological sites of this type have European cultural values.

Overall, potential pre-1900 Māori archaeological features would have moderate archaeological values should they be confirmed to have these values through further investigations.

Overall, the potential 19th century cottage building features have moderate historic-period archaeological values associated with rural activity and settlement.

9.3 Tāngata Whenua and Other Values

There is some risk of project works encountering archaeological remains associated with Māori activity and occupation relating to the food and resource gathering area (within the project area) in the hills above of Tāupo Swamp and the nearby Pukerua Bay coastline. However, this archaeological risk is believed to be moderate to high and it is anticipated that works may affect an archaeological site of Māori interest. If features relating to sites of Māori activity and/or occupation exist within the Mt Welcome Station development project area, they will have Māori cultural values.

10 Assessment of Effects

10.1 Description of Works

Pukerua Property Group LP is proposing to undertake earthworks for the major subdivision earthworks of Mt Welcome Station. The earthworks will involve site scrape works and typical cut/fill methodology to provide a newly contoured suburban environment to be accessed off SH59.

The proposed earthworks will vary across the site, with the maximum anticipated excavation depths up to 20 m below the surface. The proposed earthworks will take place within the Mt Welcome Station project area (Lot 1 DP 534864; Lot 2 DP 534864; Lot 2 DP 89102; Part Lot 1 DP 89102), as well as in the nearby State Highway 59 Road Reserve (SH59 corridor adjacent to the site) and on the adjacent 34 Muri Road property (Lot 1 DP 608433, Lot 1000 DP 608433). Some of the site will be vested as public reserve.

10.2 Potential Effects of Proposed Works

The available evidence indicates that there is a moderate-high risk that the proposed earthworks will disturb archaeological remains associated with pre-1900 activity and occupation of Mt Welcome Station and this part of Pukerua Bay. In particular, there is risk that archaeological remains associated with potential pre-1900 Māori gardening and/or settlement activity will be encountered during project works. Potential depressions within the landscape (and/or evidence of discolourations and cut/fill features in the stratigraphy) may be indicators of modified soils associated with pre-1900 gardening activity (such as kumara pits). A potential Māori pit feature has been recorded in the NZAA ArchSite database as recorded archaeological site R26/886 as a result of the archaeologist's 2025 site inspections. A potential post hole feature encountered within an archaeological spade test pit at one of these depression locations may potentially be part of a structure associated with either encampment or gardening activity (such as a windbreak, for example). Charcoal flecks recorded underneath the topsoil in three archaeological spade test pits (of Depression Sites 3 / 6a / 6b) also indicate potential evidence of pre-1900 Māori modified soils and/or occupation/activity. Further archaeological investigation and recording of these sites is recommended over the course of subdivision site scrape earthworks.

There is also risk at a more localised level that archaeological remains associated with 19th century cottage dwelling will be affected by the subdivision project works, through its demolition or removal offsite (which will still affect ground and subsurface archaeological remains at this location). There is also potential for archaeological remains associated with a pre-1900 woolshed to be encountered within the building footprint of the existing early 20th century woolshed during demolition works. Due to the substantial nature and extent of the works proposed in such a large project area, it is likely that any archaeological sites will be destroyed in their entirety (unless these happen to be potentially located in an area of works to be left untouched by earthworks), and damage to the sites will be permanent resulting in a loss of the finite number of archaeological site resources in this part of Porirua. As such, the risk that there will be adverse effects on the archaeological values of the sites will be moderate.

10.3 Mitigation of Effects

All archaeological sites formed prior to 1900 are protected under the provisions of the HNZPTA. It is illegal to destroy or damage an archaeological/cultural site without an Authority to do so from HNZPT. Where it is not possible to avoid adverse effects on archaeological values, an Archaeological Authority issued under the provisions of the HNZPTA provides a means of controlling those adverse effects and recovering data from the affected site(s).

It is recommended that an Archaeological Authority is obtained for the earthworks for the subdivision development earthworks at Mt Welcome Station, Pukerua Bay, to ensure that important information about Porirua's past is not lost. Under this Authority, an archaeologist should monitor site scrape ground excavation works in areas deemed to have high archaeological risk in the Archaeological Management Plan and record any evidence of pre-1900 archaeological remains, following standard archaeological practice.

11 Conclusion and Recommendations

11.1 Conclusion

The proposed Mt Welcome Station subdivision works project considered in this AAE will take place within Porirua's suburb of Pukerua Bay. This part of Porirua was known to have been occupied by both Māori and Europeans prior to 1900.

The proposed project works considered in this AAE are located at Mt Welcome Station, a rural block of land where relatively little development has previously taken place over time (given the extent of the farm). The extant farm buildings, roads and infrastructure (including fencing and previous earthwork modification of the landscape for tracks etc) are believed to be a small percentage of the overall land area. On the basis of this previous minimal development over time, there is potential for intact archaeological to still be present underneath the extant ground surfaces within the Mt Welcome Station project area.

Historic aerial photography confirms that prior to 1942 the extant farm featured the cottage dwelling and woolshed at this time. This AAE has inspected both the cottage and woolshed to determine whether these buildings were constructed prior to 1900.

The woolshed was a timber framed gabled building with corrugated iron roof and wall cladding. No manufacturers' stamp marks were found on the exposed corrugated iron on the interior, which suggests replacement of the cladding with more modern material (without makers' marks) over time. The exposed timber framing was visible on the interior and showed evidence of circular saw marks. Some sarking was applied to the interior partition wall which separated the shearing work area from the sheep pens in the middle and east side of original gabled building envelope.

The floor of the gabled woolshed consisted of timber T&G floorboards (with the exception of timber slats within the sheep pens) on timber joists, which in turn rested on large roughly-hewn totara piles. As is typical of shearing sheds, evidence of shearers' graffiti was evident on the timber sarking and exposed corrugated iron and timber framing. This graffiti included names and dates of individuals and was applied using wool bale stencil lettering/paint, but also featured chalk, pencil and marker pen. The earliest shearers' graffiti found dated to the mid-1930s, which is believed to coincide with the post-1900 estimate of the woolshed's construction date.

The earliest graffiti observed on the interior walls and structure near the main south entrance door was from the mid-1930s. However, Reginald Stace Wall and Isabella Wall were property owners prior to this date and there is newspaper evidence that Mt Welcome wool bales were sold at local wool auctions in the 1920s ('The Wool Market,' *Dominion*, 20/08/1921 p9; 'Wellington Wool Sales', *New Zealand Times*, 18/11/1925, p11). On this basis, the extant woolshed building may already have been constructed (albeit with no shearers' graffiti from this earlier period yet found in the interior of the extant building). Alternatively, an earlier former woolshed building may have been used for shearing at Mt Welcome Station, potentially at the same location as the extant woolshed.

The woolshed showed at least two primary phases of construction over time; namely the gabled original woolshed and side room with lean-to addition (Phase 1 of Construction), and the east side addition with lean-to roof (Phase 2 of Construction). The east side addition was constructed of treated timber piles with timber beam portal framing which ran along the length of the original building. Modern floor boards, treated circular sectioned timber piles corrugated iron ceiling and wall cladding indicated late 20th century or early 20th century construction.

On the basis of the building inspection, the woolshed was determined to have been constructed post-1900, and this is substantiated by the earliest visible graffiti of the shearers applied to the building over time (dating from the mid-1930s). Although the building is not considered to be of pre-1900 construction, it does possess heritage values in terms of the tangible rural social history associated with the early 20th century farming activities of Mt Welcome Station. Should this building be demolished, there is potential for pre-1900 archaeological remains to be encountered within the extant building footprint and surrounding area. Therefore, archaeological monitoring of earthworks is recommended for project works in the vicinity of the project area.

The cottage showed at least four potential Phases of Construction: The first was the typical gable form of the front (west) side of the dwelling (Phase 1 of Construction), which was either subsequently added to by the first lean-to addition (Phase 2 of Construction), or constructed at the same time, prior to 1900. The same style of sash windows with ogee horns featured on the front elevation and also on both gable end elevations (within the elevation of the lean-to addition) and indicate the same considerable patina of age.

The bathroom extension at the rear further extended the lean-to floor area and roof form/elevation towards the rear of the building (Phase 3 of Construction). It should be noted that the sash windows on the rear elevation showed two different construction and design styles. The extant Bungalow style rear door and sash window of the bathroom are stylistically different to the example on the rear elevation of the extant kitchen. The bathroom's sash window features frosted glass for privacy. Of interest is that this window features a less-decorative chamfered sash horn instead of the curved ogee horn used on the other windows of the cottage. These stylistic differences indicate a later construction date for this particular part of the dwelling.

The most recent modifications relate to the removal of interior walls that created the existing open plan between the living room and kitchen (Phase 4 of Construction). It is likely that the external chimney on the south gable end elevation was removed as part of Phase 4 of Construction. On the basis of the building inspection, the cottage is believed to have been constructed prior to 1900. Despite the interior having been extensively modified, original fabric is likely to still be in situ underneath the extant modern cladding and lining materials.

On the basis of key 19th century building features and components deemed to be the original fabric of the dwelling, the cottage has been recorded as recorded archaeological site R26/885 in the NZAA ArchSite database as a result of the archaeologist's 2025 building inspection.

A potential Māori pit feature has been recorded as recorded archaeological site R26/886 in the NZAA ArchSite database as a result of the archaeologist's 2025 site inspections. This had been noted in the previous archaeological report as a depression site (potential depression feature 2).

A potential posthole feature was recorded in potential depression 1. It is postulated that this potential posthole feature could be associated with a Māori windbreak structure for gardening or shelter structure at this location. Three other potential depressions initially outlined in the Clough & Associates Ltd report featured charcoal fragments found in Layer II of the archaeological spade test pits (Depression Sites 3, 6a & 6b) which may be an indication of a potential fire pit/oven feature in the vicinity. Other nearby spade test pits were devoid of charcoal fragments, which do not appear to suggest a wider forest burn-off event in this area.

A review of the NZAA ArchSite GIS map shows that the nearest previously recorded archaeological site to the project area is site R26/820 which refers to a WWII-era Home Guard trench that is located less than 100 m south of the project area but will not be affected by project works at Mt Welcome Station. Numerous recorded archaeological sites are located in the vicinity of the project area, however, these are located over 700 m from the Mt Welcome project area and will not be affected by subdivision project earthworks.

A small number of nearby recorded archaeological sites and one HNZPT listed 'Category 2 Historic Place' (also an archaeological site) are recorded in Pukerua Bay. However, these sites are outside the project area and will not be affected by project works. Whilst these recorded archaeological sites will not be affected by project works, there is archaeological risk that unrecorded archaeological features/material related to pre-1900 Māori gardening activity and/or occupation may be encountered during project earthworks of this large subdivision's project area. There is also risk that archaeological remains associated with the extant 19th century historic-period cottage may be encountered during project earthworks in this part of Mt Welcome Station.

The Mt Welcome Station is a large property (comprising multiple land titles) that is located south of Pukerua Bay, an area known to have been occupied prior to 1900 by Māori and also subsequently by European settlers. This assessment has determined that the proposed earthworks pose potential for encountering and impacting Māori and historic-period archaeological sites.

Evidence of pre-1900 Māori sites associated with gardening and/or occupation activity may potentially be encountered during the subdivision project's earthworks. Evidence of pre-1900 historic period farming and occupation activity may potentially also be encountered during works.

On the basis of this AAE, and the extent of excavation works proposed within the Mt Welcome Station subdivision project area, it is recommended that an Archaeological Authority be sought from HNZPT to allow for archaeological monitoring and management of archaeological material should it be encountered within the project area. Please note that this recommendation is only valid for the scope of works described above. If the scope of works changes, then this recommendation may need to be revised.

11.2 Recommendations

The following recommendations are made in this report:

- An Archaeological Authority should be sought from HNZPT for the subdivision earthworks at Mt Welcome Station due to the potential to affect archaeological remains protected by the HNZPTA. This will allow for archaeological monitoring of project earthworks, analysis and reporting of archaeological sites and/or material, should any be encountered during project works.

- An Archaeological Management Plan (AMP) should be prepared to manage the archaeological response of the project.

- Under any granted Archaeological Authority, an archaeologist should monitor ground excavation works as per the AMP and record any evidence of pre-1900 archaeological remains, following standard archaeological practices.

References

Heath H. & R. Clough 2019. *Mt Welcome Station, 422 State Highway 1, Pukerua Bay, Porirua: Archaeological Appraisal for Private Plan Change*. Prepared for Classic Developments Ltd. June 2019. Clough & Associates Ltd, Auckland.

Cameron, E. & R. Clough 2022. *Mt Welcome Station: An Archaeological Appraisal for Variation to the Proposed Porirua District Plan*. Prepared for Classic Developments Ltd. March 2022. Clough & Associates Ltd. Auckland

Grip map software

Heritage New Zealand Pouhere Taonga: The New Zealand Heritage List/Rārangi Kōrero https://www.heritage.org.nz/places

McClean, R. & A. Bishop 2025. *Te Rūnanga O Toa Rangatira Cultural Values Assessment: Proposed Subdivision at Mt Welcome Station, Pukerua Bay*. 1st Draft, 4 November 2025. Te Rūnanga O Toa Rangatira, Porirua.

New Zealand Archaeological Association ArchSite GIS database

Porirua District Plan

Retrolens website for 1942 historic aerial photograph. Survey number SN198, Run number 324C, Photo number 5. http://retrolens.nz/

APPENDIX 1: Heath H. & R. Clough 2019.

Mt Welcome Station, 422 State Highway 1, Pukerua Bay, Porirua: Archaeological Appraisal for Private Plan Change.

Prepared for Classic Developments Ltd. June 2019. Clough & Associates Ltd, Auckland.

PCC - Submission Number - 242

MT WELCOME STATION, 422 STATE HIGHWAY 1, PUKERUA BAY, PORIRUA: ARCHAEOLOGICAL APPRAISAL FOR PLAN CHANGES TO THE PORIRUA DISTRICT PLAN

Prepared for Classic Developments Ltd



June 2019

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INTRODUCTION

Project Background

Classic Developments Ltd intends to assist Porirua City Council in changes to its District Plan to allow the development of Mt Welcome Station at 422 State Highway 1, Pukerua Bay in Porirua (Figure 1). The land area is 55.1700ha. An indicative land use plan, shown in Figure 2, envisages a central open space (reserve) for lifestyle multiple use including recreation, catchment management, stormwater management, and pedestrian links; recognition and enhancement of an area of bush on a neighbouring property through proposed planting and catchment control; roading linkages; an area of affordable housing; and potential residential development areas including a village area (Land Matters Dec 2018),

An archaeological appraisal was commissioned by Classic Developments Ltd to establish whether future development resulting from the proposed Plan Change is likely to impact on archaeological values. This report has been prepared in support of the Plan Change process under the Resource Management Act 1991 (RMA) and to identify any requirements under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA). Recommendations are made in accordance with statutory requirements.

Methodology

The New Zealand Archaeological Association's (NZAA) site record database (ArchSite), Porirua City Council website, District Plan schedules and the Heritage New Zealand Pouhere Taonga (Heritage NZ) New Zealand Heritage List/Rārangi Kōrero were searched to determine whether any archaeological sites had been recorded on or in the immediate vicinity of the property. Literature and archaeological reports relevant to the area were consulted (see Bibliography). Early plans held at Land Information New Zealand (LINZ) and aerial photographs were checked for information relating to past land use.

A visual inspection of the property was conducted on 14 June 2019. The ground surface was examined for evidence of former occupation (in the form of shell midden, depressions, terracing or other unusual formations within the landscape, or indications of 19th century European settlement remains). Exposed and disturbed soils were examined where encountered for evidence of earlier modification, and an understanding of the local stratigraphy. Particular attention was paid to the spur and ridge lines and creek banks (topographical features where archaeological sites are often found to be located). Photographs were taken to record the topography and features of interest and GPS readings were taken to record the latter where appropriate. Subsurface testing was not carried out by the archaeologist; however, the results of the geotechnical test pitting undertaken by Tonkin & Taylor Ltd were reviewed.

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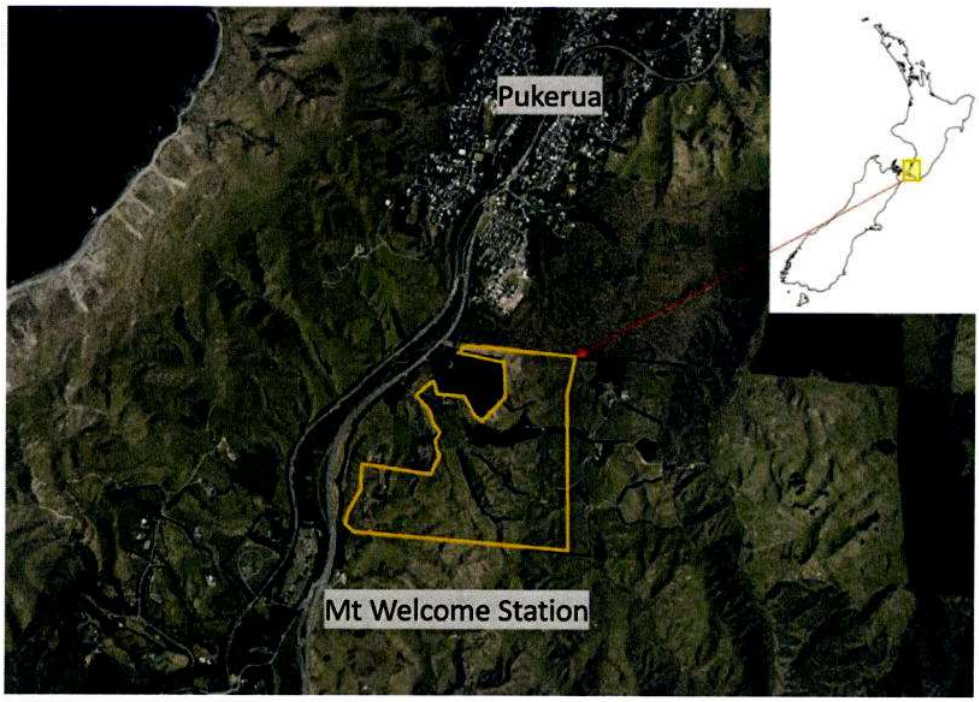


Figure 1. Location of Mt Welcome Station, 422 State Highway 1, Pukerua Bay in Porirua

Clough & ASSOCIATES LTD

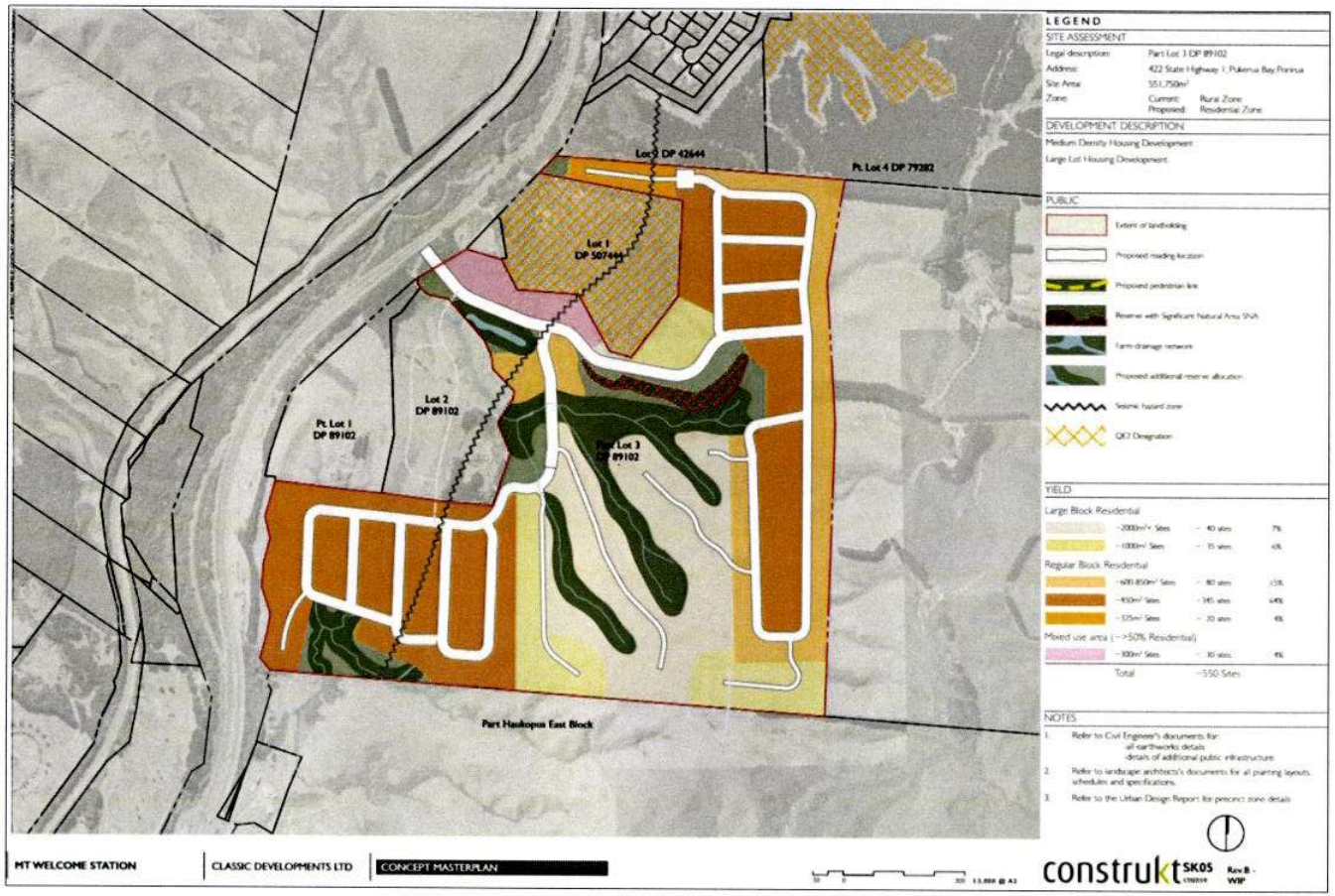


Figure 2. Indicative land use plan for Mt Welcome Station

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HISTORICAL BACKGROUND

Only a brief historical summary is provided for the purpose of this appraisal.

According to tradition, the first settlers in the area arrived with Kupe, the Polynesia voyager, who left an anchor stone at Porirua. Following Kupe, brothers Tara and Tautoki explored the Wellington district and settled the area. Their descendants Ngati Tara lived there for several generations before the arrival of Ngati Kahungunu. By the 17th century Ngati Ira had spread westward into Porirua, intermarried with Ngati Kahungunu and Ngati Tara, and built the Waimapihi Pa in Pukerua Bay (Best 1914; 1917).

Waimapihi Pa was seized by Ngati Toa around 1819-20 from defending Ngati Ira and Muaupoko warriors and Ngati Ira were pushed out of the Porirua region. Ngati Toa still held the area in 1845, as described by Bevan (1907). Bevan describes the accommodation he stayed at while journeying from Wellington to Waikawa. Such stopovers included European barracks, local houses, kainga and pa. Bevan stayed at Waimapihi Pa, held by Ngati Toa, and described it as a fortified village containing hundreds of inhabitants with an outer stockade, two lines of palisades with deep ditches and underground retreats (Bevan 1907: 5). Ngati Toa also had many pa and small kainga within the Porirua Harbour, an area which is an important part of Ngati Toa's history. [1]

Following European contact, the Wellington district became a desirable place for British settlers. From the 1830s, the cultivation of gardening and flax production increased in the area to provide for whalers and traders, which in turn contributed to the increase and placement of European settlement (Stodart 2015). There was fighting over land between Maori and Pakeha (Keith 1990). Porirua was a prime location for farming and control over land access to the Wellington district, while Pukerua was also a stopping point for those travelling south. By the early 1840s the Porirua district was purchased, surveyed and then settled by the New Zealand Company.

[1] The information presented in this historical summary should not be viewed as complete or without other context as there are many other histories known to tangata whenua.

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ARCHAEOLOGICAL BACKGROUND

No archaeological sites recorded in NZAA ArchSite fall within the boundaries of Mt Welcome Station, the majority of the recorded sites being located closer to the coast (Figure 3). However, the nearest sites are only c.1km away. Features of these sites include food storage pits and terraces for whare or food storage, and an artefact find (R26/148,149 and 120) (see Table 1).

Further to the northwest along the coast are three recorded sites (R26/226, R26/147 and R26/209), including pits, a kainga/village and a burial with flaked stone artefacts. Another burial (R26/227) was found in the north of Pukerua Bay. Heading east along the coast are World War II concrete machine gun pill boxes built as precaution for a perceived Japanese threat and brickworks related to the construction of the railway around the 1880s.

In addition, there are sites listed in the Porirua Heritage Management Strategy 2010 that are not recorded archaeological sites, but are recommended for archaeological management (see pages C-27 to C-34). Figure 4 shows two Pa (Waimapihi and Pukerua) that are not listed on NZAA ArchSite but are referred to in the historical literature (see Historical Background). Best (1917) describes Waimapihi pa as 'stockades of large posts of tree trunks bound by long saplings where palisading was lashed' (p. 148). Waimapihi Pa is at the end of Pa Road in Pukerua Bay. Pukerua Pa is at 153 Rawhiti Road, according to the Porirua Heritage Management Strategy, but Stodart (2015) notes that the location is problematic (p. 10). The Heritage Management Strategy also lists pits and terraces, a whaling station and two urupa at 153 Rawhiti Road. This could be a general location for all these sites; they are also listed as being in Wairaka, which could be anywhere east of State Highway 1.

While these sites are not within the Mt Welcome Station, they demonstrate the archaeological potential in the wider area. Archaeological sites reflect the settlement patterns of the area and, paired with historical literature, demonstrate human settlement from an early period, with Maori establishing kainga and pa, and burying their dead along the coast in urupa. Pukerua was a stopping point for people traveling to the lower Wellington region.

There are no historic places listed on the NZ Heritage List within the boundaries of the proposed development area (http://www.heritage.org.nz/the-list checked 21/6/19), or any historic heritage sites scheduled in the Porirua City District Plan

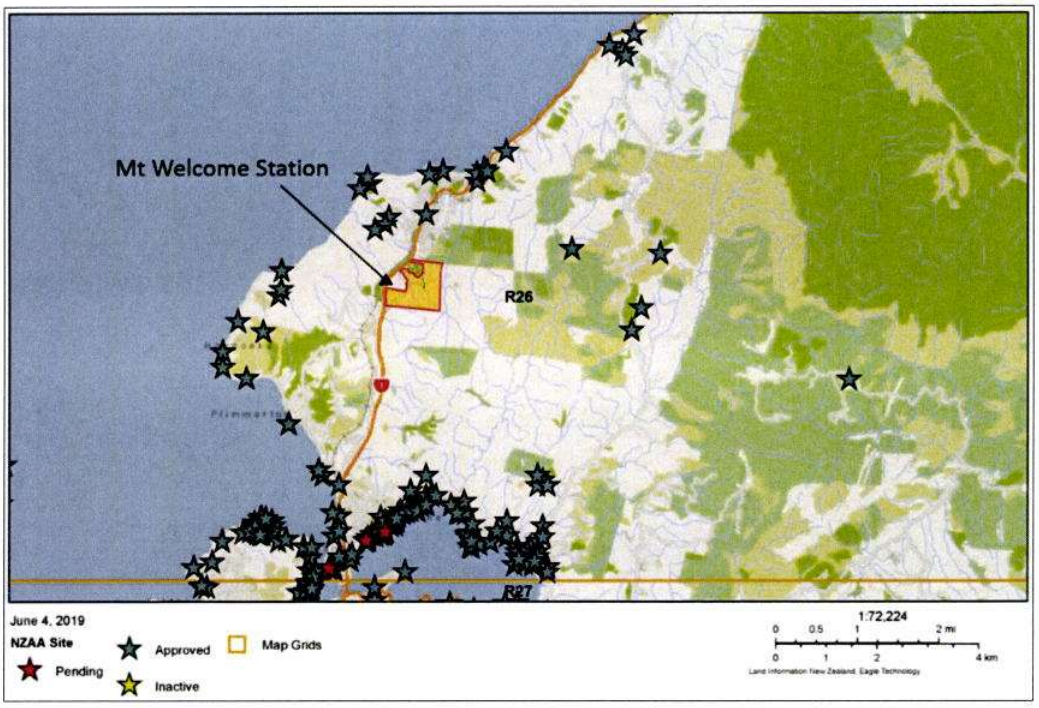


Figure 3. Archaeological sites in Pukerua Bay and Porirua to the south

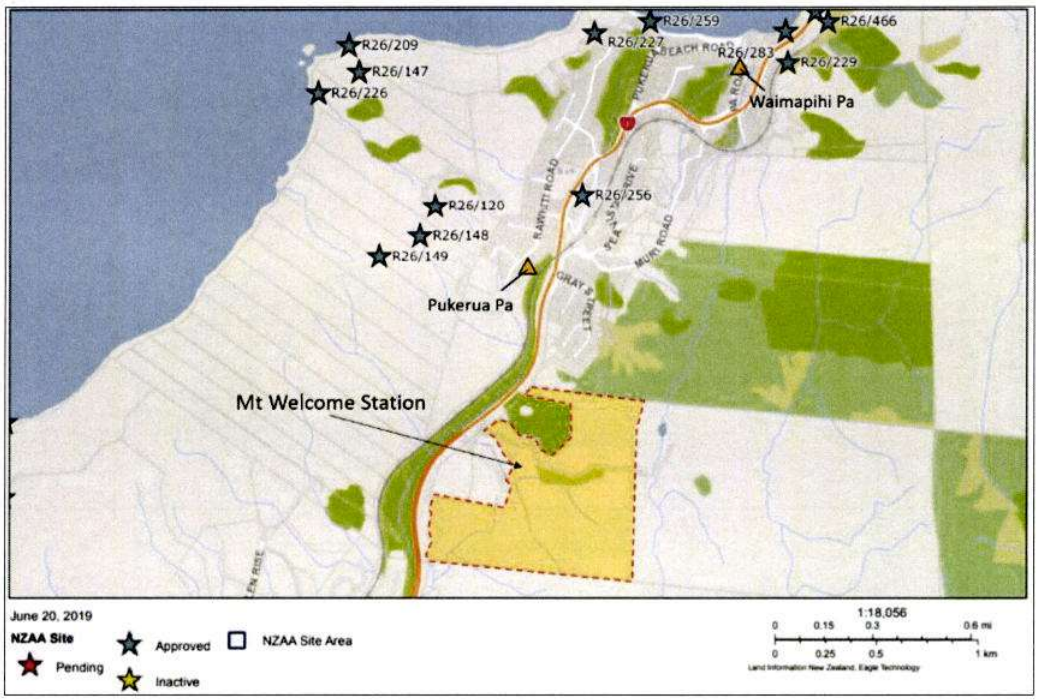


Figure 4. Recorded archaeological sites from NZAA Archsite and Pa sites from Porirua Heritage Management Strategy 2010 within c.2km of the project area

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Table 1. Recorded sites within c.2km from the project area (source: NZAA ArchSite and Porirua Heritage Management Strategy 2010)

NZAA ID	NZTM E	NZTM N	Short Description	Site Type	Site Feature	Distance from Mt Welcome Station
R26/120	1757857	5455432	Pits on spurs	Pit/Terrace	Terrace, Hut floor/ site, Pit	1km
R26/147	1757481	5456086	Two square pits. Flat floor surface with the rear of the excavation backed by a scarp.	Pit/Terrace	Pit	1.8km
R26/148	1757781	5455286	Pits on large spurs	Pit/Terrace	Pit	1km
R26/149	1757581	5455186	Five pits with rounded ends and raised rims. Two have external drains.	Pit/Terrace	Pit – raised rim	1km
R26/209	1757431	5456216	Burial	Burial/cemetery	Burial and artefacts – stone flakes	1.9km
R26/226	1757281	5455986	Eight pits. Known local knowledge as a Kainga	Pit/Terrace	Pit, Terrace	1.8km
R26/227	1758641	5456276	Crouch burial in sand	Burial/cemetery	Burial	1.8km
R26/229	1759591	5456132	Brickworks. Used in the construction of railway tunnels between Pukerua Bay and Paekakariki	Industrial	Borrow pit, Brickworks, Platform, Scarp, Shaft, Kiln - brick, Ruins - building or structure, Unclassified	2km
R26/256	1758581	5455486	Adze find	Artefact find	Artefact - Adze	1km
R26/259	1758914	5456333	Concrete pill box built during World War II	Military (non-Maori)	Pill box	1.9km
R26/283	1759581	5456286	WW2 concrete machine gun pillbox. Two steel reinforced wooden blast doors lying inside the structure.	Military (non-Maori)	Pill box	2km
-			Waimapihi Pa	Pa	Pa	1.9km
-			Pukerua Pa	Pa	Pa	0.6km

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Information from Early Maps and Plans

Information obtained from early survey maps between 1886 and 1998 showed that plans were mainly concerned with the placement of the railway and land divisions. No pre-1900 buildings were identified on the maps examined (listed in the Bibliography), and there was no indication as to whether the cottage and woolshed at Mt Welcome Station were built before 1900. The earliest survey plan located showing the cottage is from 1940, while a 1942 aerial photograph shows both structures (see Figure 6, below). An 1896 survey plan (WN ML 1429 I) states that the landscape was at that date covered in bush, so the major forest clearance and farm development occurred after 1896.

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PHYSICAL ENVIRONMENT

Topography, Vegetation, Geology and Current Land use

Mt Welcome Station is a block of farmland with an undulating hillside and steep ridges (Figure 5). The steepest ridges are in the northeast, while the land is lower closer to the highway. Farm drainage networks run in the gullies between the ridges and are also found in the lower-lying areas. The vegetation is predominantly grassland with some pine trees along the ridges. Small rock outcrops are dotted across the landscape and erosion from the steeper slopes shows crumbling sandstone. The land is currently used as grazing for livestock, mainly sheep and deer.



Figure 5. General view over Mt Welcome Station

Historical Modification

Aerials from 1942 up to the present day show consistent use of the farmland as grazing areas for livestock. Modification of the landscape over time includes grading of slopes, farm tracks, fencing, the planting of pine and additional houses. As noted above, major forest clearance occurred after 1896.

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Figure 6. Aerial from 1942 (source: Retrolens)



Figure 7. Aerial from 2019 (source: LINZ)

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FIELD ASSESSMENT

Field Survey Results

An archaeological survey of the property was carried out on 14 June 2019 by Helen Heath, accompanied by Dave Riley from Classic Developments Ltd. Weather conditions and visibility were good and the survey of the 55ha property was undertaken on foot.

There are three buildings on the site located along the driveway in the area proposed for mixed use residential deveopment in Figure 2 (shaded pink). They include a cottage (proposed for removal) and a woolshed (Figure 8). As previously noted, the structures do not appear on any pre-1900 maps, but the cottage is shown in a 1940 survey plan, while the cottage and the wool shed both appear on the 1942 aerial (Figure 6). The current landowner, Rick Lucas, does not know when they were built. As bush clearance and farm development appear to have occurred sometime after 1896, they are considered likely to be of 20th century date. The third building, south of the wool shed, was a later addition to the property.

Figure 9–Figure 13 show views over the property, with locations identified in relation to the indicative land use plan in Figure 2.

The landscape within the property mainly comprises high ridges that slope down to the west, separated by gullies that drain into the lower farm drainage network in the lower-lying land. Ridges are suitable locations for food storage pits, as they drain naturally, while flat and wide gullies or plains that are sheltered are suitable for crop gardens. However, generally the gullies and lower areas seen at Mt Welcome Station would not have provided ideal conditions for crop cultivation. Some depressions were noted in the southeastern part of the property which could potentially be archaeological features (Figure 14 and Figure 15). However, holes/depressions resulting from deer rooting were witnessed all over the property and these depressions also have the potential to have been made by farm stock.

No probing or test pitting was carried out during the survey. However, Tonkin & Taylor Ltd have carried out a geotechnical investigation across the property. On 9, 16 and 17 May 2019 25 tests pits up to 5.6m in depth and 9 dynamic cone penetrometer (DCP) tests were carried out (Tonkin & Taylor Ltd 2019). The sections recorded by Tonkin & Taylor Ltd showed a topsoil overlying silty fine sand across most of the site, bar the wetter mash areas. No potential archaeological features or fills were seen in the test pits and in many places the topsoil was thin, suggesting recent modification that could have obscured or destroyed archaeological features, if any had once have been present.

Parts of the northern and western areas of proposed regular block residential development were not surveyed on foot due to the presence of farm stock, as shown in Figure 15.

No confirmed archaeological sites were identified during the field survey.

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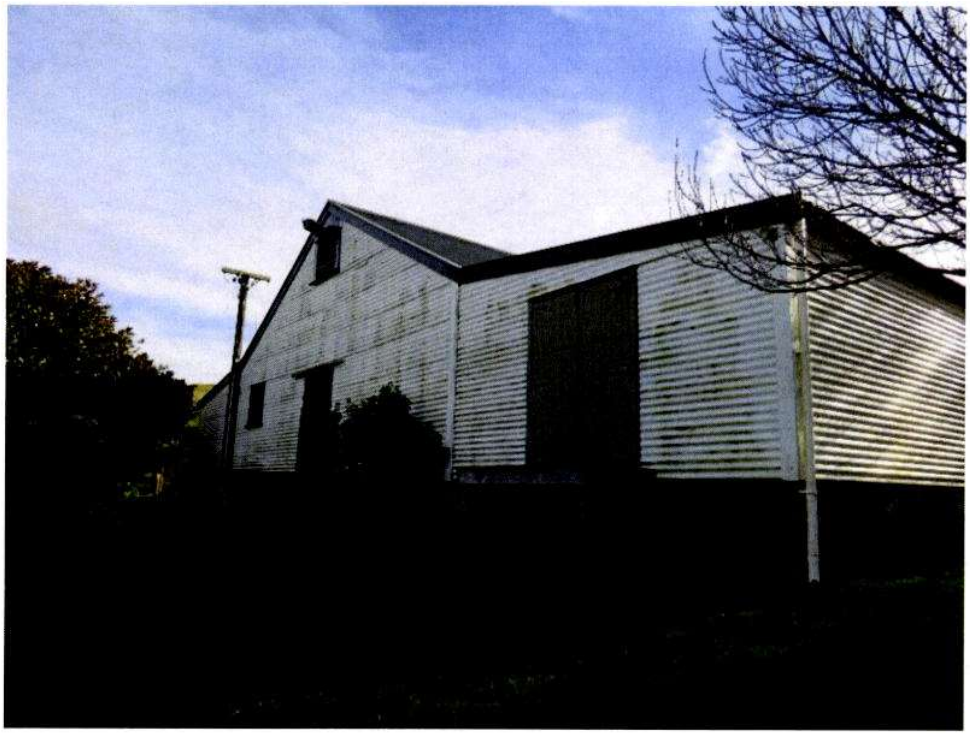


Figure 8. The Wool Shed



Figure 9. View west over Part Lot 3 from eastern area of site in Figure 2

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Figure 10. View west over Part Lot 3 and proposed additional reserve allocation in Figure 2



Figure 11. Farm drainage network in northwest of Part Lot 3 in Figure 2

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Figure 12. View west over the western area of Part Lot 3 shaded dark orange in Figure 2

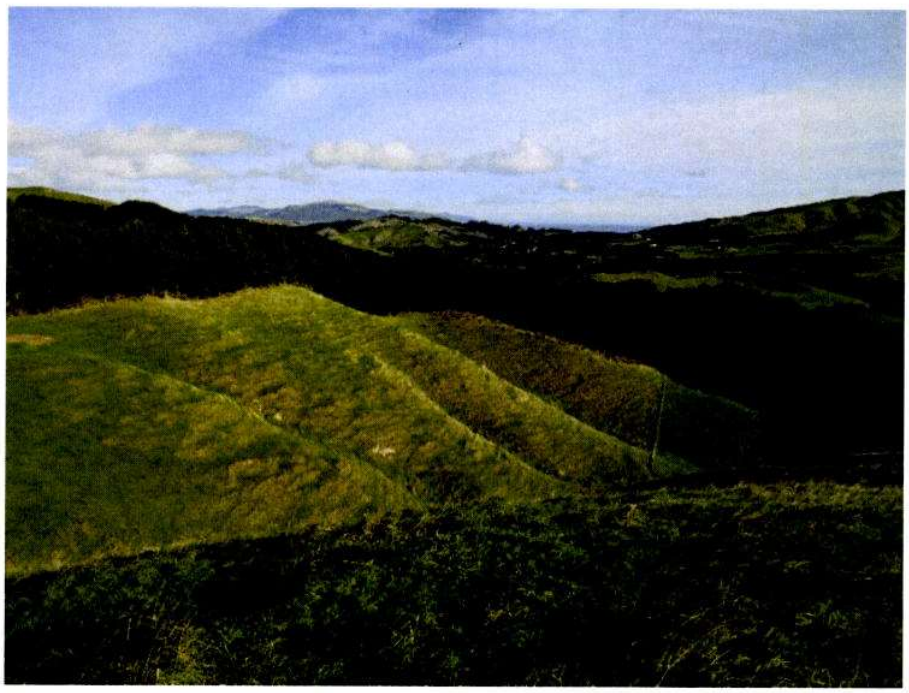


Figure 13. View southwest over northern part of Part Lot 3 shaded dark orange in Figure 2

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Figure 14. Locations of depressions on ridges (determined by GPS), recorded as yellow dots

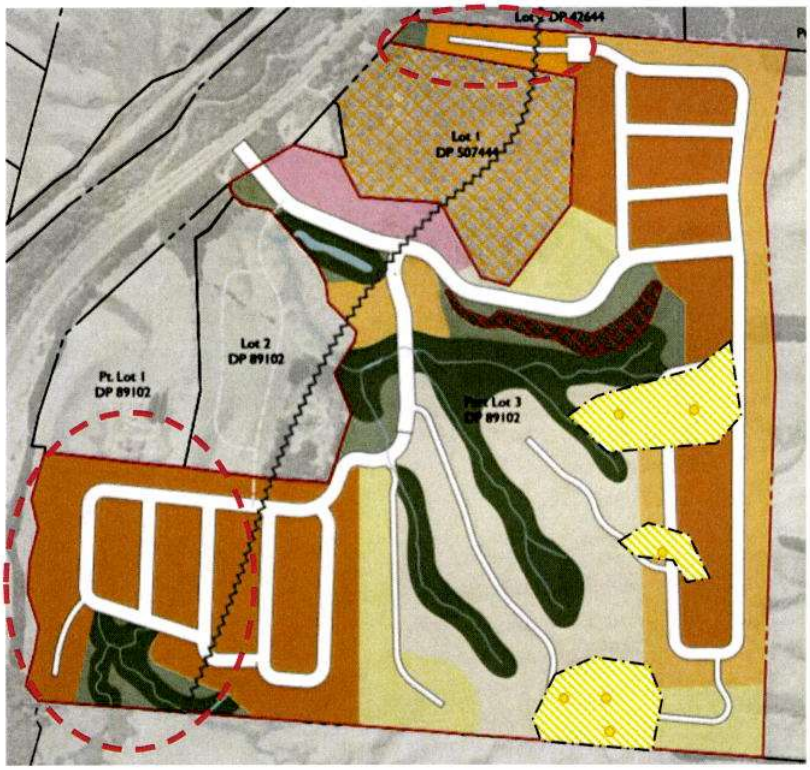


Figure 15. Location of depressions on ridges (determined by GPS), recorded as yellow dots, overlaid on indicative land use plan. Red dotted lines indicate areas not accessible for survey

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DISCUSSION AND CONCLUSIONS

Summary of Results

No archaeological sites had previously been recorded within the Mt Welcome Station property at 422 State Highway 1, Pukerua Bay, and no confirmed archaeological sites were identified during the field survey. In the southeastern part of the property depressions were identified that have some potential to be archaeological features, but these could equally have been caused by farm stock. The results of geotechnical testing by Tonkin & Taylor Ltd were reviewed, but there were no indications of archaeological deposits in the locations tested and a thin topsoil indicated some degree of modification.

Maori Cultural Values

This is an assessment of 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.

The historical association of the general area with the tangata whenua is evident from the recorded sites, traditional histories and known Maori place names.

Survey Limitations

It should be noted that archaeological survey techniques (based on visual inspection) cannot necessarily identify all sub-surface archaeological features, or detect wahi tapu and other sites of traditional significance to Maori, especially where these have no physical remains.

Parts of the northern and western areas of proposed regular block residential development were not surveyed on foot due to the presence of farm stock, as shown in Figure 15.

Archaeological Value and Significance

The project area has no known archaeological value as no archaeological sites were identified as a result of background research or confirmed through field survey. While possible archaeological pit depressions were identified in some areas, these could equally have been made by livestock. In addition, the property is some distance from the known locations of archaeological sites in the area. The potential for subsurface archaeological features or deposits is therefore considered to be low.

The archaeological value of sites relates mainly to their information potential, that is, the extent to which they can provide evidence relating to local, regional and national history using archaeological investigation techniques, and the research questions to which the site could contribute. The surviving extent, complexity and condition of sites are the main factors in their ability to provide information through archaeological investigation. For example, generally pa are more complex sites and have higher information potential than small midden (unless of early date). Archaeological value also includes contextual (heritage landscape) value. Archaeological sites may also have other historic heritage values including historical, architectural, technological, cultural, aesthetic, scientific, social, spiritual, traditional and amenity values.

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Effects of Future Development

Future development within the proposed Plan Change area at Mt Welcome Station will have no known effects on archaeological values as no archaeological sites were positively identified within the boundaries of the area. The closest recorded sites are around 1km away and while the landscape has a rich history and recorded sites reflect much activity in the area, the development area in question is further away from the coast and more desirable areas of settlement (Figure 3). In addition, bush clearance and the creation of farmland that occurred sometime after 1896 have modified the landscape, potentially affecting any archaeological evidence that may once have been present.

In any area where archaeological sites have been recorded in the general vicinity it is possible that unrecorded subsurface remains may be exposed during development. While it is considered unlikely in this location, based on the location of the property and the results of the field survey, the possibility can be provided for by putting procedures in place ensuring that Heritage NZ are contacted should this occur during future development of the property.

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 and crockery, ditches, banks, pits, old building foundations, artefacts of Maori and early European origin or human burials.

Resource Management Act 1991 Requirements

Section 6 of the RMA 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'*. 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 Maori, 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 Porirua City District Plan is relevant to the proposed activity.

There are no scheduled historic heritage sites located on the property. This assessment has established that future development of the proposed Mt Welcome Station Private Plan Change area will have no effect on any known archaeological sites, and has little potential to affect unrecorded subsurface remains. However, a more detailed assessment that

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includes subsurface testing to determine the origin of the depressions noted in in the southeastern part of the property is recommended at the detailed planning stage.

Heritage New Zealand Pouhere Taonga Act 2014 Requirements

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 Maori 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 Maori 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.

An archaeological authority will not be required for the future development of Mt Welcome Station as no known sites will be affected, and it is unlikely that any undetected sites are present. However, should any sites be identified during more detailed survey, or exposed during future development, the provisions of the HNZPTA must be complied with.

Conclusions

No archaeological sites have previously been recorded on Mt Welcome Station and none were identified during the field survey. The land has been modified by bush clearance and farm activity. The only potential archaeological features identified consisted of indistinct depressions that are likely to be the result of livestock activity. Overall the archaeological potential of the property is considered to be low, and the effects of future development on archaeological values in the proposed Plan Change area are likely to be minor or less than minor. Any adverse effects on archaeological values could be appropriately mitigated by recording and information recovery under the archaeological provisions of the HNZPTA.

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RECOMMENDATIONS

- There should be no constraints on the proposed Plan Change on archaeological grounds, since no archaeological sites are known to be present and it is considered unlikely that any are present on the property.
- A more detailed archaeological assessment that includes subsurface testing to determine the origin of the depressions noted in the southeastern area should be carried out at the detailed planning stage.
- Any adverse effects on archaeology identified at the detailed planning stage should be appropriately mitigated by recording and information recovery under the archaeological provisions of the HNZPTA.
- Since archaeological survey cannot always detect sites of traditional significance to Maori, such as wahi tapu, the tangata whenua should be consulted regarding the possible existence of such sites on the property.

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Maps and Plans Examined:

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WN DP 9457 I 1
WN DP 9663 I 1
WN DP 10469 I 1
WN DP 44495 S 1
WN DP 44495 S 2
WN ML 1429 I 1
WN ML 1953 I 1
WN ML 3088 I 1 - to the east
WN ML 4984 I 2
WN ML 4984 I 3
WN ML 4984 I 4
WN SO 24910 I 1
WN SO 32889 S 1
WNC B 461 I 1
WNC B 461 I 2
WNC B 461 I 8
WNC B 461 I 10
WNC DP 9096 I 1
WNC DP 10146 I 1

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WNC ML 759 I 1 - just to the south
WNC ML 759 I 1- just to the south
WNC ML 775 I 1
WNC ML 4984 I 1
WNC SO 12357 I 1
WNC SO 18802 I 1
WNC SO 20580 I 1

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APPENDIX 6

APPENDIX 2: Cameron & Clough 2022.

Mt Welcome Station: An Archaeological Appraisal for Variation to the Proposed Porirua District Plan.

Prepared for Classic Developments Ltd. March 2022. Clough & Associates Ltd. Auckland.

MT WELCOME STATION: ARCHAEOLOGICAL APPRAISAL FOR VARIATION TO THE PROPOSED PORIRUA DISTRICT PLAN

Prepared for Classic Developments Ltd

March 2022



By

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INTRODUCTION

Project Background

Classic Developments Ltd intends to assist Porirua City Council in changes to its District Plan to allow the development of Mt Welcome Station at 422 and 422A State Highway 1, Pukerua Bay in Porirua, shown in Figure 1 and to be referred to as the variation area in this report. The land area is 205.6028ha and the legal descriptions of the properties are Lot 1 and Lot 2 DP 534864. The proposed development is understood to comprise approximately 10,000 lots as well as commercial and community spaces (plans not available for inclusion in this report). It is noted that the currently proposed development is indicative only and will be finalised at a later stage in the development.

An archaeological appraisal of Lot 1 DP 534864 (the western third of the variation area), including a field survey, was caried out by Clough & Associates in 2019 (Heath and Clough 2019).

An updated archaeological appraisal including an additional property (Lot 2 DP 534864, the eastern two-thirds of the variation area) was commissioned by Classic Developments Ltd to establish whether future development resulting from the proposed variation is likely to impact on archaeological values. This report has been prepared in support of the variation process under the Resource Management Act 1991 (RMA) and to identify any requirements under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA). Recommendations are made in accordance with statutory requirements.

Methodology

The New Zealand Archaeological Association's (NZAA) site record database (ArchSite), Porirua City Council website, District Plan schedules and the Heritage New Zealand Pouhere Taonga (Heritage NZ) New Zealand Heritage List/Rārangi Kōrero were searched to determine whether any archaeological or other historic heritage sites had been recorded on or in the immediate vicinity of the variation area. Literature and archaeological reports relevant to the area were consulted (see Bibliography). Early plans held at Land Information New Zealand (LINZ) and aerial photographs were checked for information relating to past land use.

A visual inspection of the western part of the variation area (Lot 1 DP 534864) was conducted on 14 June 2019. The ground surface was examined for evidence of former occupation (in the form of shell midden, depressions, terracing or other unusual formations within the landscape, or indications of 19th century European settlement remains). Exposed and disturbed soils were examined where encountered for evidence of earlier modification, and an understanding of the local stratigraphy. Particular attention was paid to the spur and ridge lines and creek banks (topographical features where archaeological sites are often found to be located). Photographs were taken to record the topography and features of interest and GPS readings were taken to record the latter where appropriate. Subsurface testing was not carried out by the archaeologist; however, the results of the geotechnical test pitting undertaken by Tonkin & Taylor Ltd were reviewed. A further desktop study of the remainder of the variation area (Lot 2 DP 534864) has been undertaken with the results presented in this updated appraisal report.

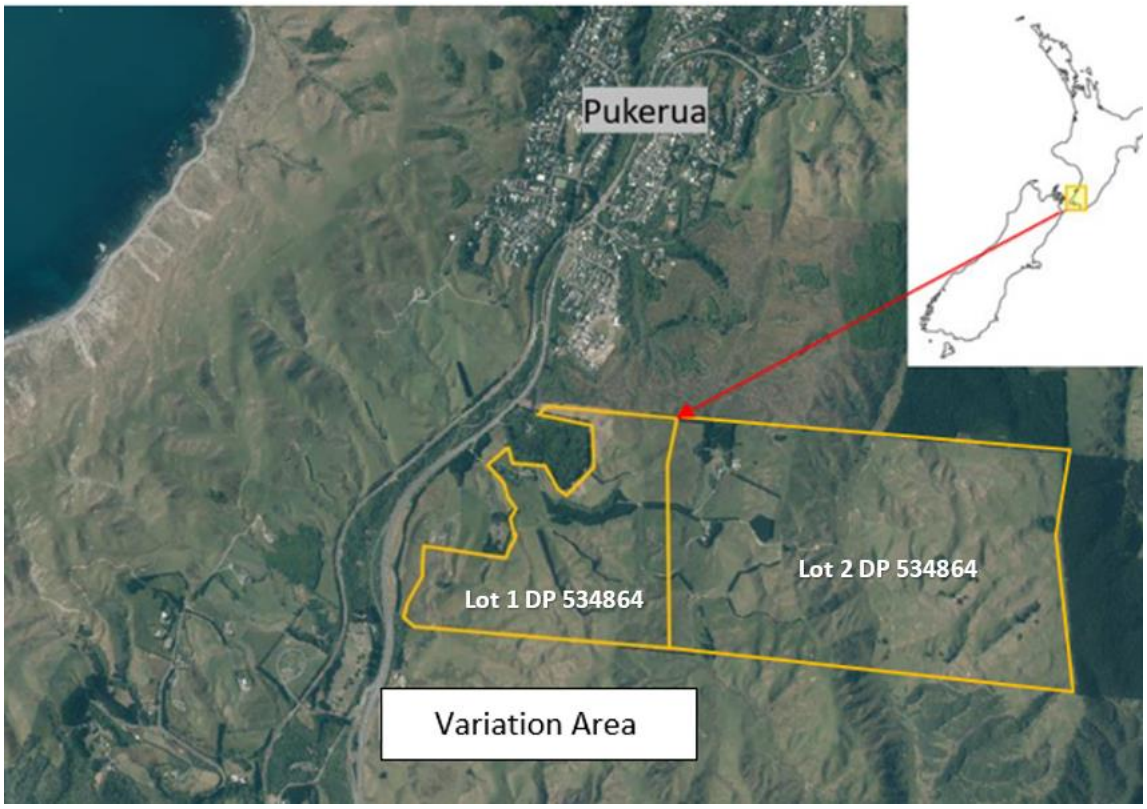


Figure 1. Location of the variation area outlined in orange, Pukerua Bay in Porirua (source: Porirua City Council LocalMaps)

HISTORICAL BACKGROUND

Early Settlement

Only a brief historical summary is provided for the purpose of this appraisal.

According to tradition, the first settlers in the area arrived with Kupe, the Polynesian voyager, who left an anchor stone at Porirua. Following Kupe, brothers Tara and Tautoki explored the Wellington district and settled the area. Their descendants Ngāti Tara lived there for several generations before the arrival of Ngāti Kahungunu. By the 17th century Ngāti Ira had spread westward into Porirua, intermarried with Ngāti Kahungunu and Ngāti Tara, and built the Waimapihi Pā in Pukerua Bay (Best 1914; 1917).

Waimapihi Pā was seized by Ngāti Toa around 1819-20 from defending Ngāti Ira and Muaūpoko warriors and Ngāti Ira were pushed out of the Porirua region. Ngāti Toa still held the area in 1845, as described by Bevan (1907). Bevan describes the accommodation he stayed at while journeying from Wellington to Waikawa. Such stopovers included European barracks, local houses, kāinga and pā. Bevan stayed at Waimapihi Pā, held by Ngāti Toa, and described it as a fortified village containing hundreds of inhabitants with an outer stockade, two lines of palisades with deep ditches and underground retreats (Bevan 1907: 5). Ngāti Toa also had many pā and small kāinga within the Porirua Harbour, an area which is an important part of Ngāti Toa's history. [1]

Following European contact, the Wellington district became a desirable place for British settlers. From the 1830s, the cultivation of gardening and flax production increased in the area to provide for whalers and traders, which in turn contributed to the increase and placement of European settlement (Stodart 2015). There was fighting over land between Māori and Pakeha (Keith 1990). Porirua was a prime location for farming and control over land access to the Wellington district, while Pukerua was also a stopping point for those travelling south. By the early 1840s the Porirua district was purchased, surveyed and then settled by the New Zealand Company.

In July 1869, an outcrop of quartz on a ridge near Mount Welcome was found by two men out searching for lost cattle and two gold mining companies were formed, The Mount Welcome Gold Mining Company and the Telegraph Gold Mining Company.[2] Unfortunately, no gold was ever recovered and both companies had folded by 1870. It was also noted that the Wall family who had begun farming to the east of the mining areas in 1852, had named their farm 'Mount Welcome' (HeAraPukerua- Facebook.com).

Information from Early Maps and Plans

A review of old maps and plans was undertaken to understand past land use and ownership of the properties in the variation area. The earliest plan found was dated 1870 and is shown in Figure 2. This plan shows a survey of the Waimapihi and Pukerua Blocks. The variation area is situated in the southwest part of the plan in Section 4 and the southern part of Section

[1] The information presented in this historical summary should not be viewed as complete or without other context as there are many other histories known to tangata whenua.
[2] The Mount Welcome Gold Mining Company notice of registration was published in the *Evening Post* Volume 5 Issue 106, 6 August 1869 and the Telegraph Mining Company notice of registration was published in the Wellington Independent 19 August 1869.

3 with a landcover of bush and watercourses indicated. Mount Welcome is also shown on the plan. A later plan from 1886 has the properties where the variation area is located labelled as Pukerua Section 4 and 3C in Block V Paekakariki Survey District (Figure 3).

The plan dating from 1896 in Figure 4 shows the northern part of the variation area and has an annotation that indicates it was still covered in bush at this point in time. Another plan also dated 1896 (Figure 5**)** has the two southern sections containing the variation area now labelled as 4N and 4S.

The survey plan dated 1928 in Figure 6 shows the western part of the variation area. It is noted that the plan has the names R.S. Wall and Isabella Wall annotated. Reginald Stace Wall passed away in 1945 and in his obituary, it was noted that he had built on his 'Mount Welcome' property around 20 years earlier and had lived there until his death. The obituary also noted that he was the son of the late Anthony Wall, an early pioneer settler (*Wanganui Chronicle* 20 December 1945). Isabella Wall was the wife of Reginald Wall, as noted in another obituary (*Evening Post* 12 December 1945).

Information obtained from early survey maps and plans did not identify any pre-1900 buildings in the variation area.

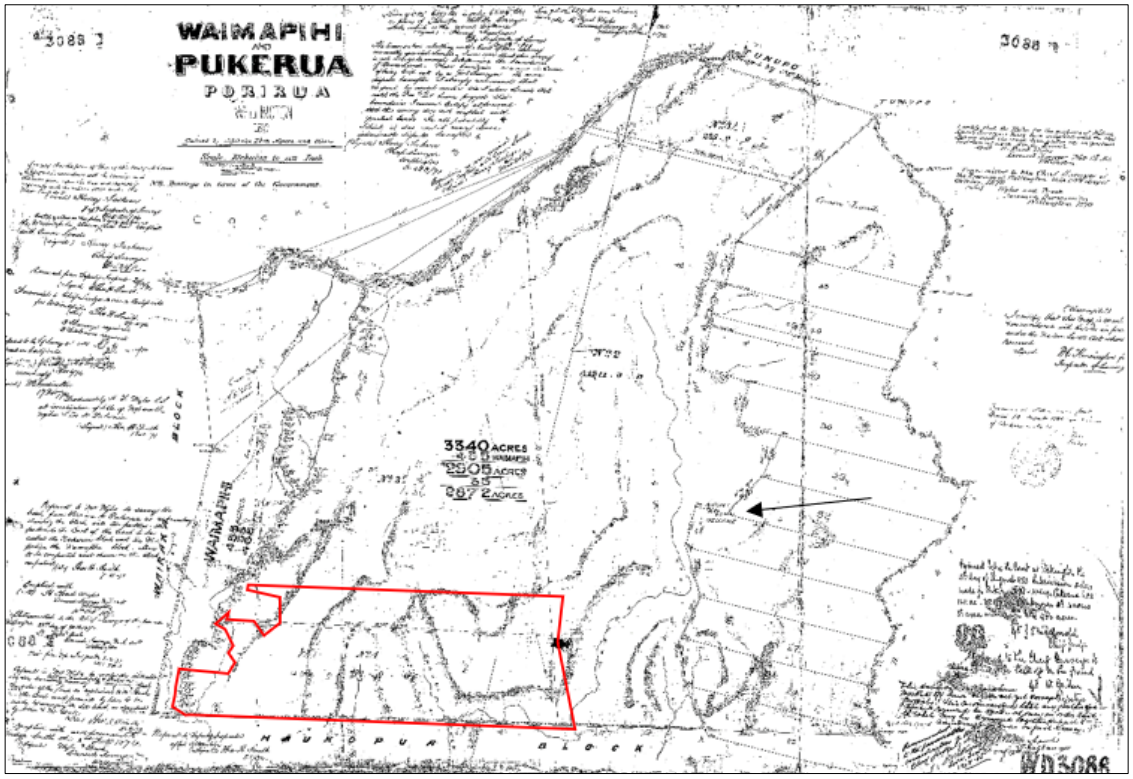


Figure 2. WN ML 3088 survey plan of the Waimapihi and Pukerua Blocks dated 1870 with the variation area outlined in red and the location of Mount Welcome indicated by arrow (source: Quickmap)

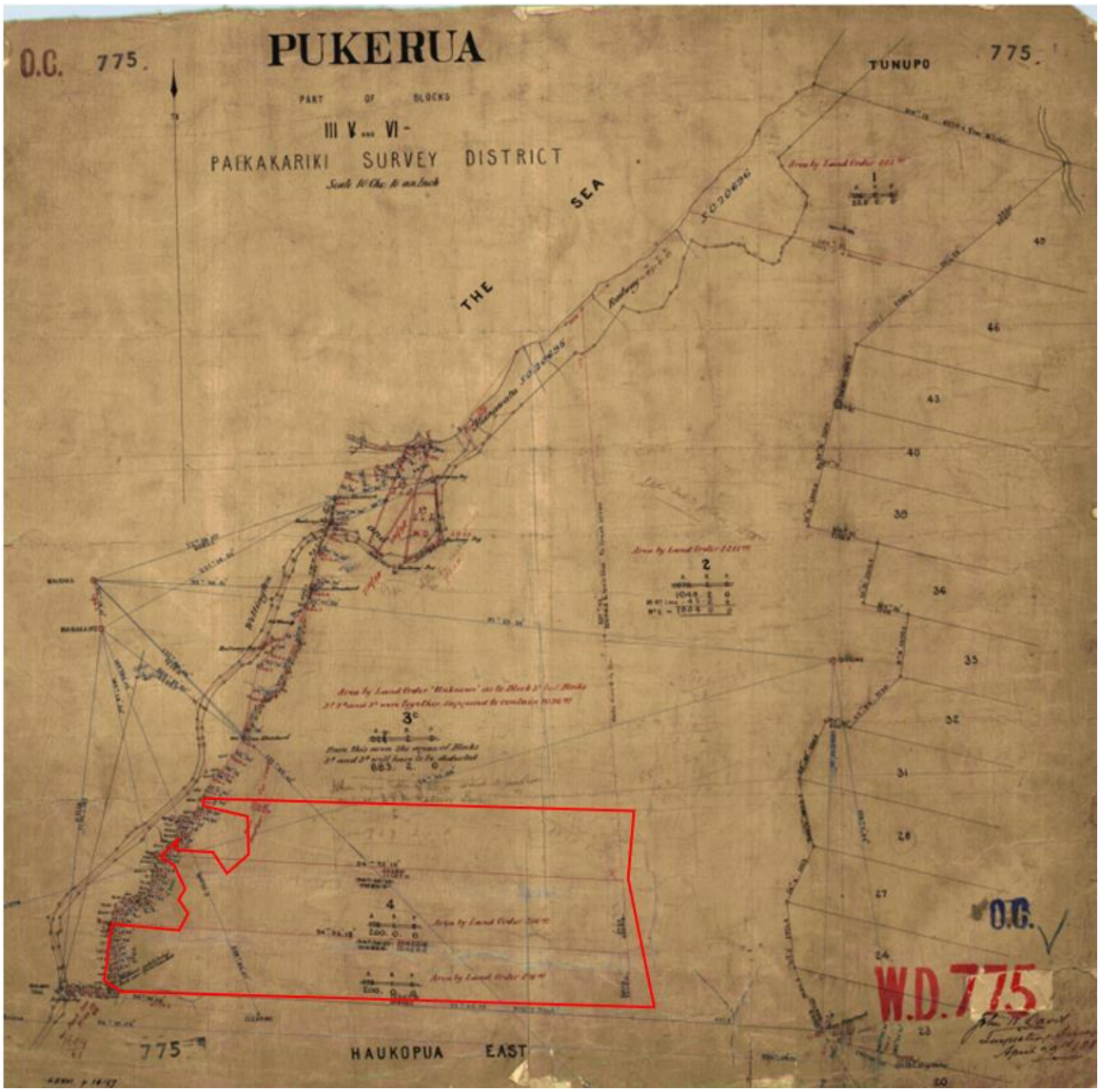
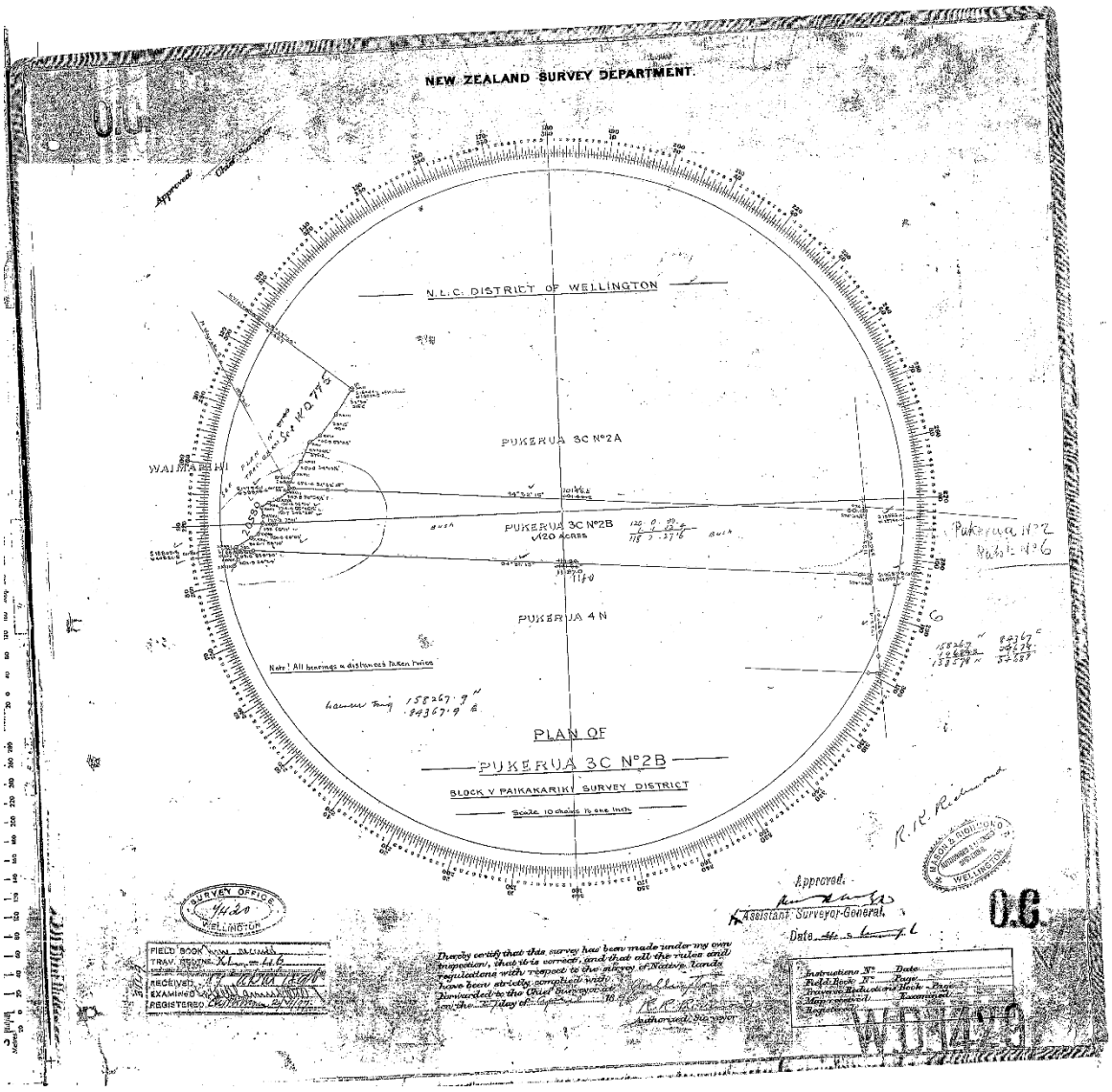
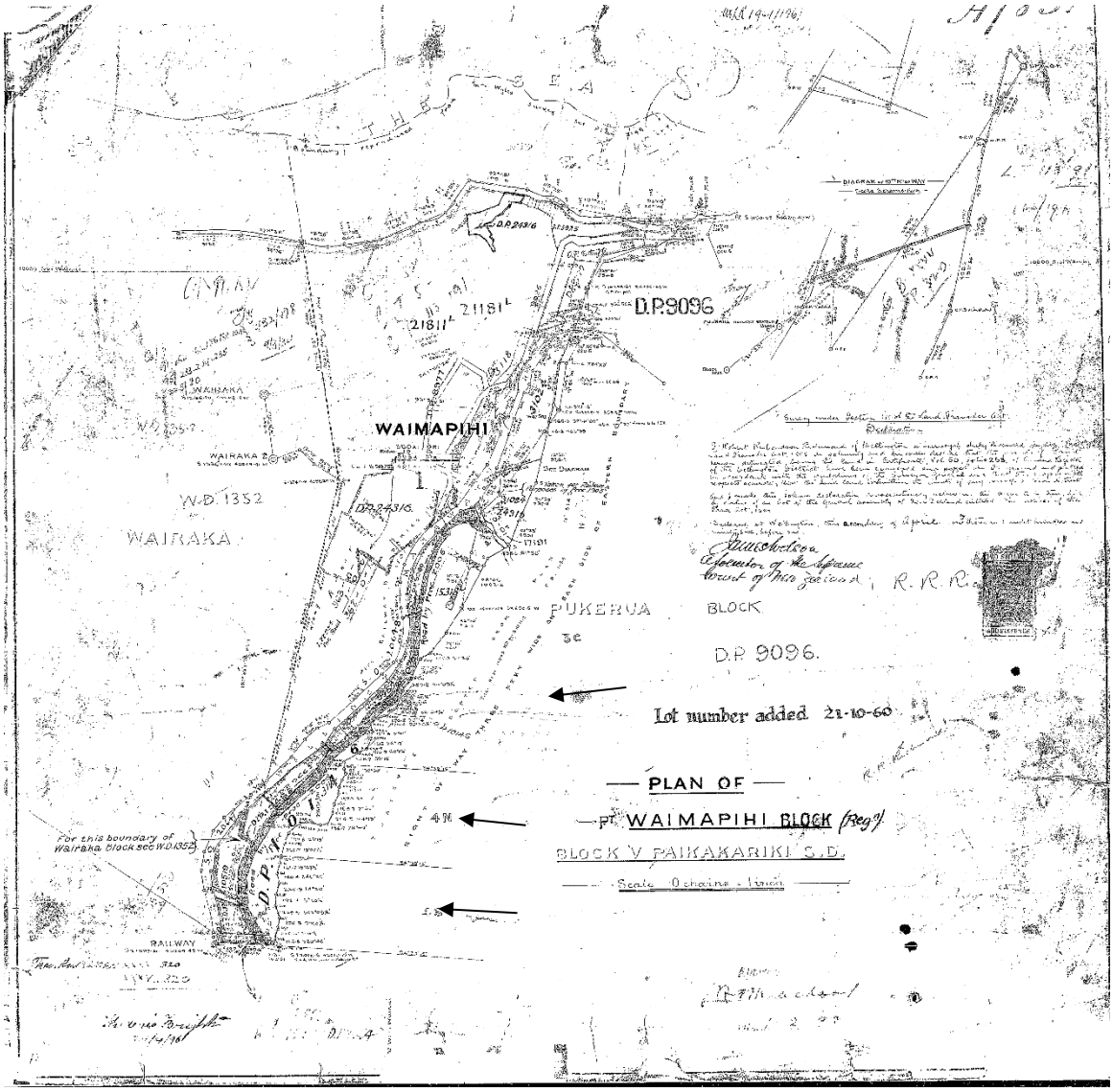


Figure 3. WN ML 775 plan dated 1896 showing survey plan of Blocks III, V and VI of the Paekakariki Survey District (source: Quickmap)



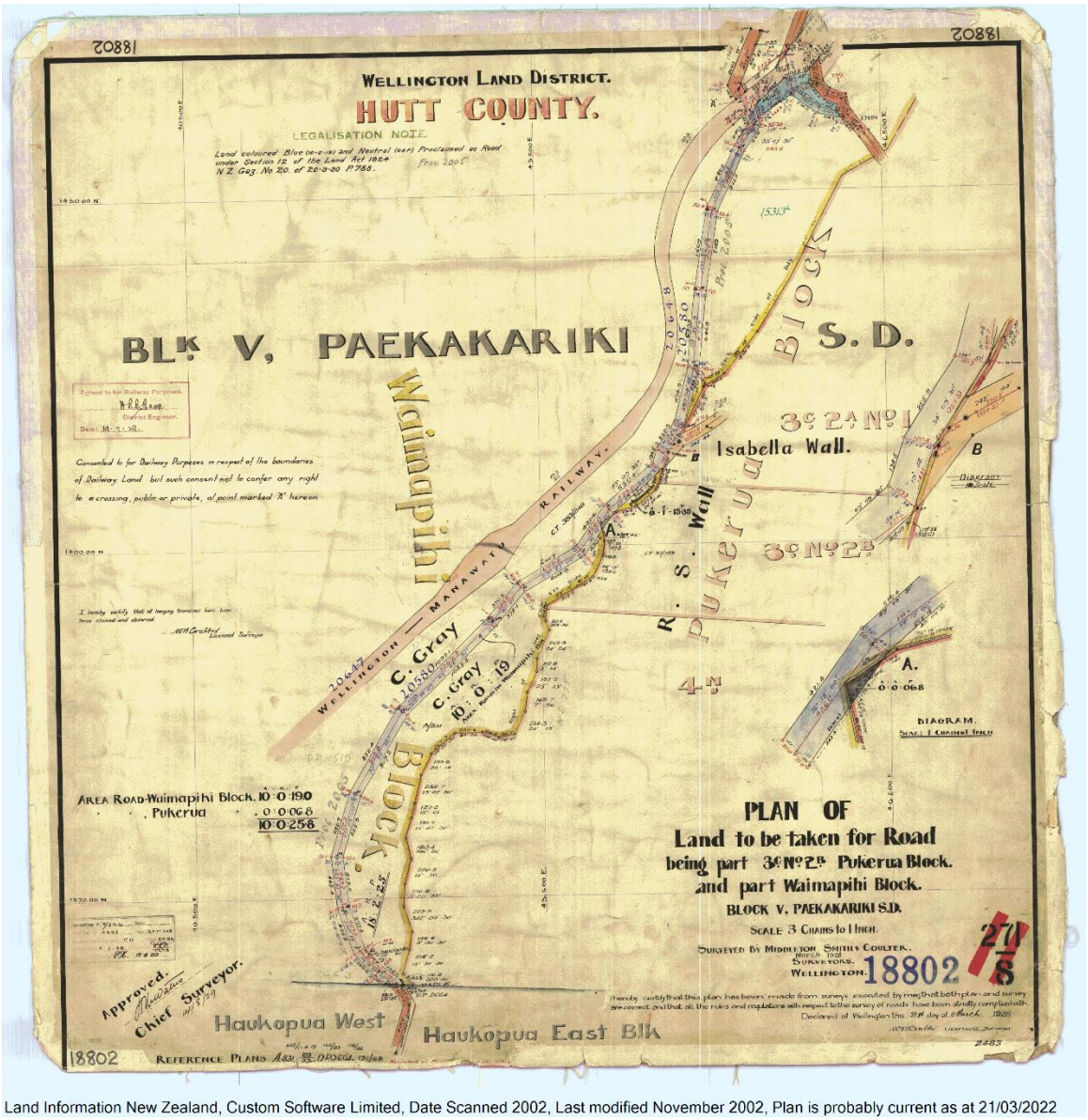
Land Information New Zealand, Custom Software Limited, Date Scanned 2002, Last modified November 2002, Plan is probably current as at 20/03/2022

Figure 4. WN ML 1429 Plan dated 1896 showing detail of Pukerua 3C No2B with 'Bush' annotated (source: Quickmap)



Land Information New Zealand, Custom Software Limited, Date Scanned 2002, Last modified November 2002, Plan is probably current as at 20/03/2022

Figure 5. WN A 831 plan dated 1896 showing the lots in the variation area (4S, 4N and the southern part of 3C) (source: Quickmap)



Land Information New Zealand, Custom Software Limited, Date Scanned 2002, Last modified November 2002, Plan is probably current as at 21/03/2022

Figure 6. WN SO 18802 plan dated 1928 showing the western part of the variation area and with 'R.S. Wall' annotated on Section 3CNo.2B and 'Isabella Wall' on the section to the north (source: Quickmap)

Information from Early Aerials

Aerial photographs from 1942 up to the present day[3] show consistent use of the farmland as grazing areas for livestock. Modification of the landscape over time includes grading of slopes, farm tracks, fencing, the planting of pine and a new house in the central north part of the variation area that first appears on a 2002 aerial photograph.

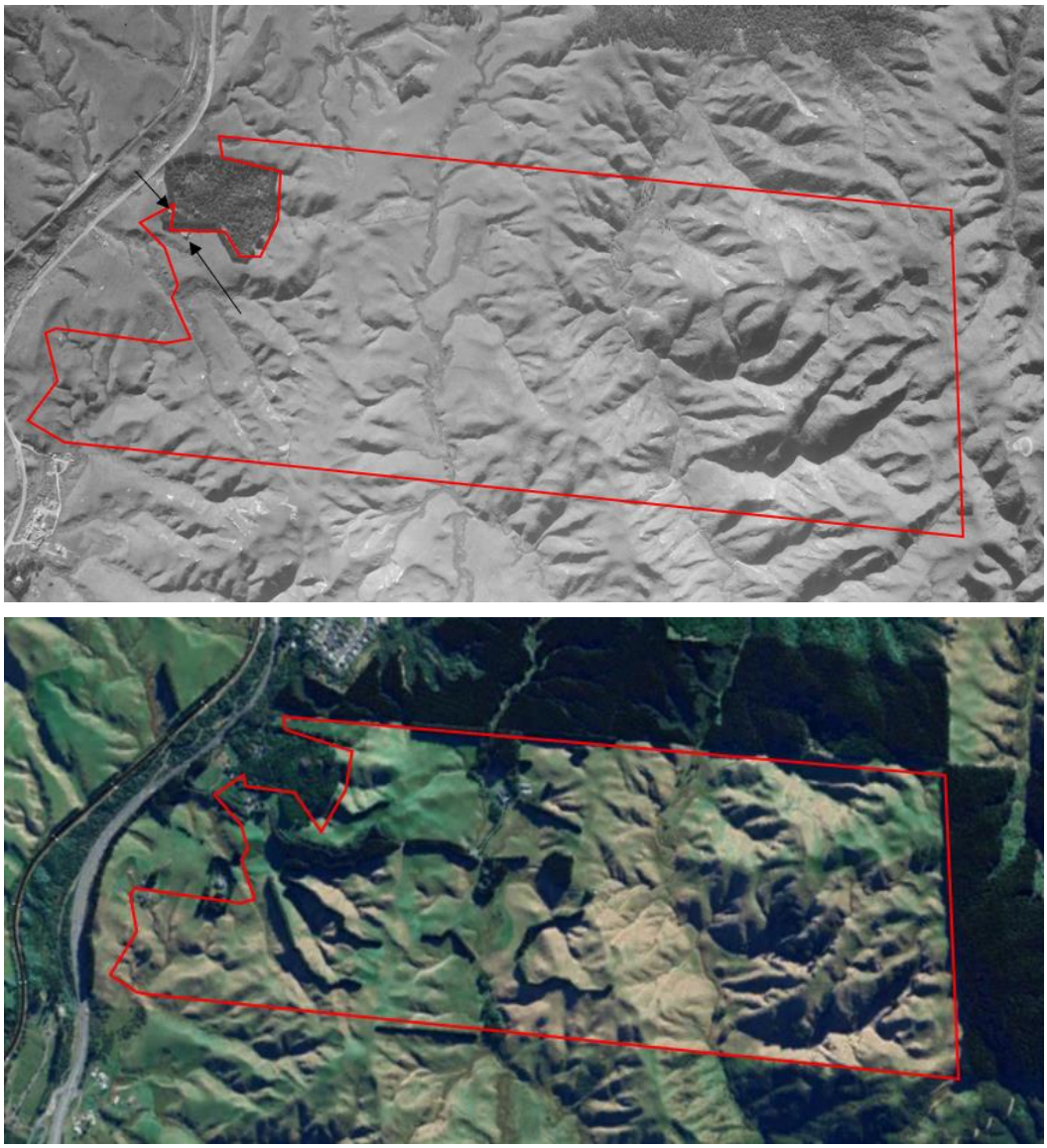


Figure 7. Upper aerial photograph dated 1942 (Crown 198 324C 5) and lower aerial photograph dated 2019 showing the variation area outlined in red with location of building within the variation area indicated by arrow in the 1942 aerial (upper sourced from: http://retrolens.nz and licensed by LINZ CC-BY 3.0 and lower from Google Earth)

[3] Aerial photographs reviewed but not shown are as follows: 1388 J 4 (1961), 1507 3313 1 (1969), 3185 4221 4 (1969), 198 324C 5 (1972, 8790 F 13 (1988), 9422 AA (1995) and 198 324 C5 (1995)- sourced from: http://retrolens.nz and licensed by LINZ CC-BY 3.0) and aerial photographs sourced from Google Earth dated 2002, 2011 and 2014.

ARCHAEOLOGICAL BACKGROUND

No archaeological sites recorded in the NZAA ArchSite database fall within the boundaries of the variation area, with the majority of the recorded sites being located closer to the coast (Figure 8). The nearest site is located c.140m to the south. This is R26/820, which has been recorded as a defensive ditch in use by the Home Guard during the Second World War. It has been described as a zig zag trench system with 12 zigs and zags, each being about 5m in length with a good view to the north. The next closest sites are located at c.760m to the north of the variation area. These are R26/804 and R26/805, which have been recorded as pits and terraces on slopes near stream gullies. Two similar sites have also been recorded slightly further to the northeast: R26/803, which was recorded as a series of six possible terraces on a spur overlooking Pukerua Bay, at a distance of c.820m from the variation area; and further to the east and c.840m to the north of the variation area, R26/806 was recorded as several medium sized terraces overlooking Pukerua Bay.

An isolated find, an adze of light coloured conglomerate has also been recorded to the north of the variation area at c.930m (R26/256). To the west of this site three other sites (pits and terraces) have been recorded. These are R26/120 which was recorded as terraces with a deep pit and rectangular floor surfaces on the summit of a spur and descending down on spurs to the northeast and southeast; and R26/148 and R26/149 which have both been recorded as pits, with the pits at R26/149 noted to have external drains.

The remaining sites are all located further to the north and along the coast, with the exception of R26/245, a gold mining site located inland to the northeast. Three of these sites are on a headland overlooking Pukerua Bay. These are R26/147, which is located on an isolated spur above steep cliffs and consists of two approximately square pits excavated into the slope to create a flat floor. The site is c.1840m from the variation area. The second of the sites in this area is R26/209 (located c.1990m from the variation area); it is a burial on a low rocky outcrop in a pocket of soil where only partial skeletal remains were found, along with a small piece of obsidian and a pāua shell. The third site in this area is R26/226 located c.1880m from the variation area, where eight pits were recorded. It is noted on the NZAA site record that according to local knowledge this was the location of a kāinga. To the east of these sites two additional sites have been recorded (R26/227 and R26/259), located between 1800 and 900m from the variation area. The former is another burial site, recorded as a crouch burial in sand with no artefacts. The other site, R26/259, is a concrete pill box dating to the Second World War, which was noted to be in good condition during a site visit in 1993.

The final four sites are located to the north of the variation area between c.1800 and 2000m away. R26/229 is a former brickworks where a clay pit, brick kiln and three brick-lined tunnels along with numerous bricks have been identified. The brickworks were believed to have been in use during the 1880s. R26/283 and R26/284 are both associated with World War II. The former is a concrete machine gun pillbox with two steel reinforced wooden blast doors, described as being in excellent condition when it was visited in 1998. R26/284 is a concrete tank trap located along a roadside when recorded in 1998. The final site is R26/466, a pit roughly 2x3m near the foot of an old slip scar – its origins were not able to be determined during a site visit in 2013 (NZAA Site Record). The locations of all of the sites described above are shown in Figure 8 and a summary description is provided in Table 1.

In addition, there are sites listed in the Porirua Heritage Management Strategy 2010 that are not recorded archaeological sites but are recommended for archaeological management (see pages C-27 to C-34). Figure 8 shows two pā (Waimapihi and Pukerua) that are not listed on NZAA ArchSite but are referred to in the historical literature (see Historical Background). Waimapihi Pā was described as 'stockades of large posts of tree trunks bound by long saplings where palisading was lashed' (Best 1917: 148). Waimapihi Pā is at the end of Pa Road in Pukerua Bay. Pukerua Pā is at 153 Rawhiti Road, according to the Porirua Heritage Management Strategy, but it has been noted that the location is problematic (Stodart 2015: 10). The Heritage Management Strategy also lists pits and terraces, a whaling station and two urupā at 153 Rawhiti Road. This could be a general location for all these sites; as they are also listed as being in Wairaka, which could be anywhere east of State Highway 1.

While none of the sites described above are within the variation area, they demonstrate the archaeological potential in the wider area. Archaeological sites reflect settlement patterns and when paired with historical literature, demonstrate human settlement from an early period, with Māori establishing kāinga and pā, and burying their dead along the coast in urupā. Pukerua was also a stopping point for people traveling to the lower Wellington region.

There are no historic places listed on the NZ Heritage List, or any historic heritage sites scheduled in the Porirua City District Plan, located in the variation area.

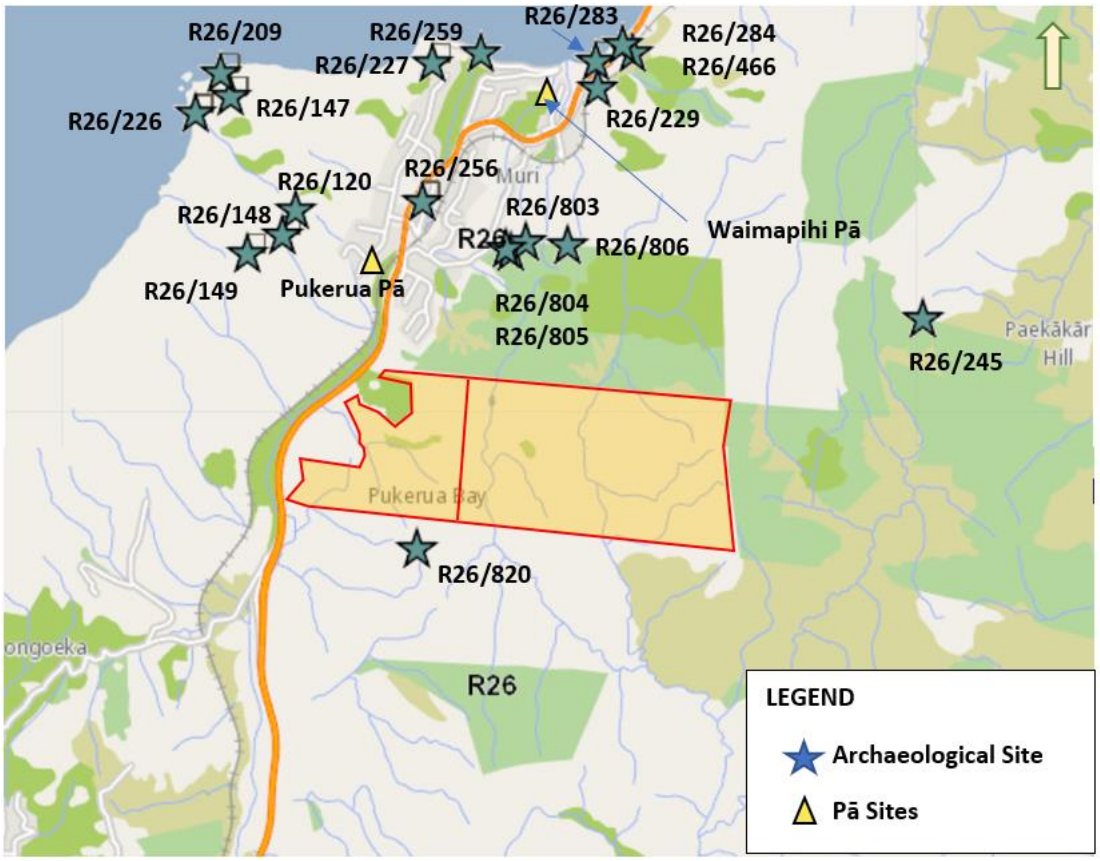


Figure 8. Recorded archaeological sites and pā sites from Porirua Heritage Management Strategy 2010 within c.2km of the proposed variation area (source: NZAA ArchSite Website and Porirua HMS)

Table 1. Recorded sites within c.2km from the variation area as recorded in the NZAA ArchSite Database.

NZAA Ref	Site Type	Description	NZTM Easting	NZTM Northing
R26/120	Pit/Terrace	Terraces and a large deep pit, rectangular hut site on summit of spur and descending down to the northeast and southeast lower spurs.	1757857	5455432
R26/147	Pit/Terrace	Two square pits. Flat floor surface with the rear of the excavation backed by a scarp.	1757481	5456086
R26/148	Pit/Terrace	Pits on slumped and broken spur- near the bottom.	1757781	5455286
R26/149	Pit/Terrace	Five pits with rounded ends and raised rims. Two have external drains.	1757581	5455186
R26/209	Burial/ Cemetery	Burial and artefacts – stone flakes.	1757431	5456216
R26/226	Pit/ Terrace	Eight pits. Known through local knowledge as a Kāinga.	1757281	5455986
R26/227	Burial/ Cemetery	Crouch burial in sand, no associated artefacts.	1758641	5456276
R26/229	Industrial	Brickworks. Used in the construction of railway tunnels between Pukerua Bay and Paekakariki	1759591	5456132
R26/245	Mining-gold	Series of shafts and drives around a quartz reef forming a ridgeline.	1761449	5454808
R26/256	Isolated Find	Adze- light coloured conglomerate stone- found in ditch. Found during road construction.	1758581	5455486
R26/259	Military (non-Māori)	Concrete pill box built during World War II	1758914	5456333
R26/283	Military (non-Māori)	World War II concrete machine gun pillbox. Two steel reinforced wooden blast doors lying inside the structure.	1759581	5456286
R26/284	Military (non-Māori)	Concrete World War II tank trap consisting of a concrete block with deep groove with railway iron.	1759727	5456380
R26/466	Pit / Terrace	c. 2x3m pit near foot of old slip scar	1759788	5456331
R26/803	Pit/ Terrace	Up to six possible terraces on west facing slope on side of a north facing spur overlooking Pukerua Bay.	1759174	5455255
R26/804	Pit / Terrace	One larger and a number of smaller terraces – south and southwest facing, near head of stream gully.	1759065	5455212
R26/805	Pit/ Terrace	One small terrace -west facing near the head of a WNW running stream gully.	1759086	5455191
R26/806	Pit/ Terrace	Several small to medium sized terraces on west facing side of prominent knoll overlooking Pukerua Bay.	1759411	5455233
R26/820	Military (non-Māori)	Home guard defensive zig-zag trench on ridge top.	1758545	5453502

PHYSICAL ENVIRONMENT

Topography, Vegetation and Land use

The variation area is characterised by an undulating grassed landscape with alternating steep ridges and valleys in the eastern part and with lower-lying land in the west near the highway, with the lowest point being in the southwest corner (Figure 9). There are three dominant parallel ridgelines which trend north to south across the variation area, with the highest point being along the ridgeline along the eastern boundary. There are also three main valley and gully features present which run down from the ridgelines in generally westerly and easterly directions into mostly ephemeral water courses, although there are perennial streams in the eastern and central valleys (ENGEO 2022:1). Farm drainage networks run in the gullies between the ridges and are also found in the lower-lying areas. The vegetation is predominantly grassland with some pine trees along the ridges. The land is currently used as grazing for livestock, mainly sheep and deer.

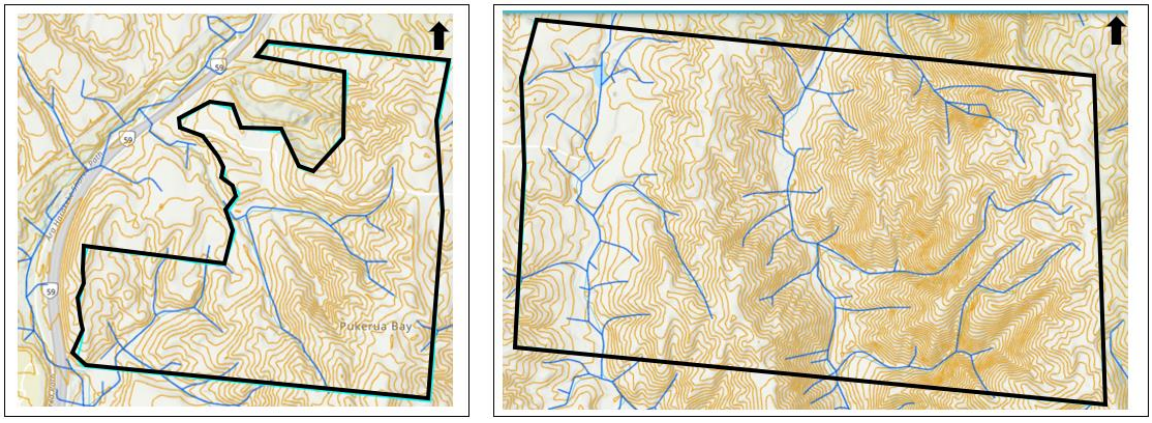


Figure 9. Contour maps of Lot 1 DP 534864 (left) and Lot 2 DP 534864 (right) with watercourses shown (source: Porirua City Council Local Maps)

Geology and Geomorphology

The site is underlain by Rakaia Terrane, specifically grey sandstone-mudstone sequences and poorly bedded sandstone, commonly known as Greywacke. There is also an area of Holocene river deposits in the central valley and Middle Pleistocene river and lake deposits in the valley on the western side (ENGEO 2022: 2). Small rock outcrops consisting of siltstone, sandstone and mudstone (Greywacke) are dotted across the landscape especially along the edges of steep gullies, at the base of landslide scarps and where water has washed away overlying soils (ibid: 8).

The soil types in the variation area have been identified as dune sand, loess, colluvium and alluvium, with the latter situated mostly in the low-lying southwest corner and at the bottom of gullies and with colluvium observed on the sides of slopes as slope wash and at the base of gullies as fan deposits. The dune sands were found to be widespread across the variation area with loess less widespread (ENGEO 2022: 8).

FIELD ASSESSMENT

Field Survey Results

An archaeological survey of the Lot 1 DP 534864 was carried out on 14 June 2019 by Helen Heath, accompanied by Dave Riley from Classic Developments Ltd. Weather conditions and visibility were good and the survey of the 55ha property was undertaken on foot.

Three buildings were identified along the driveway leading into the variation area from the west. They include a cottage that is proposed for removal and a woolshed (the latter shown in Figure 10). As previously noted, no structures were identified on any of the pre-1900 maps that were reviewed, but the cottage and the wool shed do both appear on the 1942 aerial (Figure 7). The current landowner, Rick Lucas, could not confirm when they were built. As such, both structures would require inspection by a built heritage specialist to determine if their date of construction can be established. The third building, south of the wool shed is modern.

The landscape within the surveyed area mainly comprises high ridges that slope down to the west, separated by gullies that drain into the lower farm drainage network in the lower-lying land. Ridges are suitable locations for food storage pits, as they drain naturally, while flat and wide gullies or plains that are sheltered are suitable for crop gardens. However, generally the gullies and lower areas would not have provided ideal conditions for crop cultivation. Photographs taken during the survey are shown in Figure 11 to Figure 15.

Some depressions were noted in the south-eastern part of the survey area which could potentially be archaeological features (Figure 16). However, holes/depressions resulting from deer rooting were witnessed all over the property and these depressions also have the potential to have been made by farm stock.

No probing or test pitting was carried out during the survey. However, Tonkin & Taylor Ltd have carried out a geotechnical investigation across the property. On 9, 16 and 17 May 2019 25 tests pits up to 5.6m in depth and 9 dynamic cone penetrometer (DCP) tests were carried out (Tonkin & Taylor Ltd 2019). The sections recorded by Tonkin & Taylor Ltd showed a topsoil overlying silty fine sand across most of the site, bar the wetter marsh areas. No potential archaeological features or fills were seen in the test pits and in many places the topsoil was thin, suggesting recent modification that could have obscured or destroyed archaeological features, if any had once have been present.

Parts of the northern and western areas were not surveyed on foot due to the presence of farm stock, as shown in Figure 16.

No confirmed archaeological sites were identified during the field survey.



Figure 10. The wool shed



Figure 11. View looking west over the south-eastern part of the survey area



Figure 12. View looking west over the eastern part of the survey area



Figure 13. Farm drainage network in northwest part of the survey area



Figure 14. View looking west over the western part of the survey area



Figure 15. View looking southwest over north-eastern part of the survey area

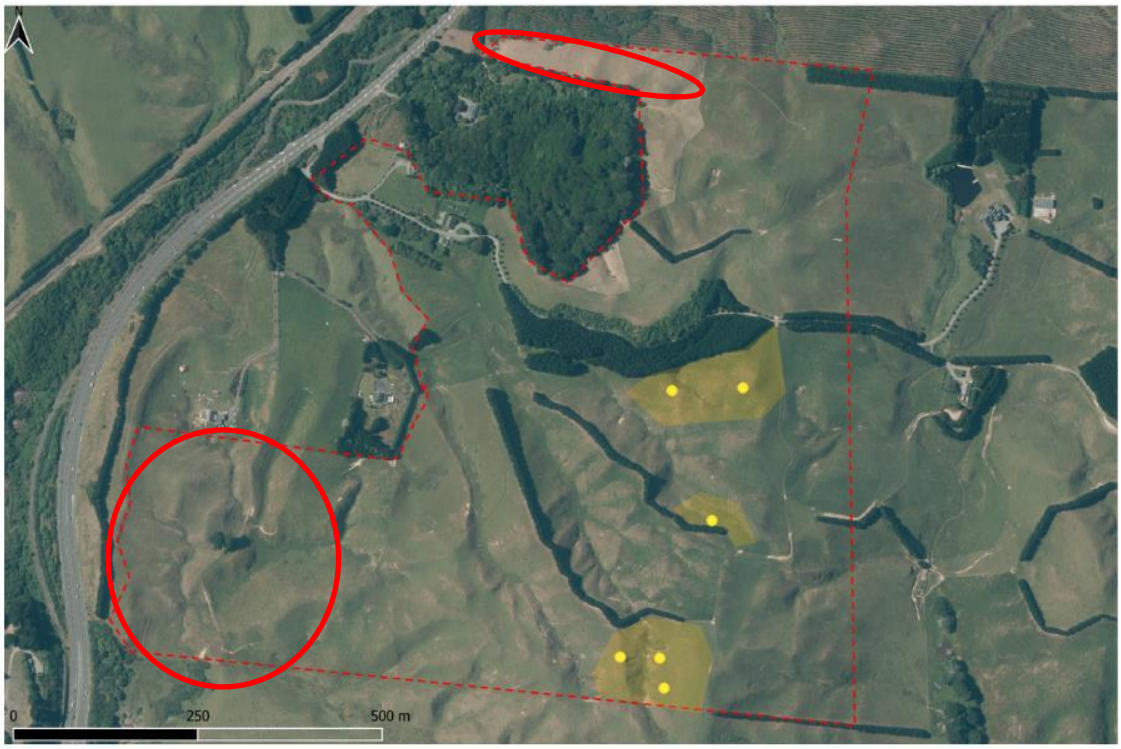


Figure 16. Location of depressions on ridges (determined by GPS), recorded as yellow dots with survey area indicated by red dashed line and red circles indicating areas which were not accessible for survey due to the presence of stock (aerial source: Porirua City Council LocalMaps)

DISCUSSION AND CONCLUSIONS

Summary of Results

No archaeological sites had previously been recorded within the variation area, and no confirmed archaeological sites were identified during the field survey in Lot 1 DP 534864 or during the desk-top assessment of Lot 2 DP 534864. Depressions that may possibly be archaeological features were identified in the central part of the survey area in Lot 1, but these may have been caused by farm stock. The results of geotechnical testing by Tonkin & Taylor Ltd were reviewed, but there were no indications of archaeological deposits in the locations tested and a thin topsoil indicated some degree of modification. Historical research has indicated that the entire variation area was covered by bush, as shown on an 1870 plan, and the northern part was still bush covered in 1896. No evidence of buildings or structures was identified on pre-1900 maps and plans that were reviewed.

Māori Cultural Values

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

The historical association of the general area with the tangata whenua is evident from the recorded sites, traditional histories and known Māori place names.

Survey Limitations

It should be noted that archaeological survey techniques (based on visual inspection) cannot necessarily identify all sub-surface archaeological features, or detect wahi tapu and other sites of traditional significance to Māori, especially where these have no physical remains.

Lot 2 DP 534864 was not surveyed, being a later addition to the variation area, and parts of the northern and western areas of Lot 1 DP 534864 were not surveyed on foot due to the presence of farm stock.

Archaeological Value and Significance

The variation area has no known archaeological value as no archaeological sites were identified as a result of background research or confirmed through field survey. It is noted that depressions were observed in some areas, although it could not be determined if they were archaeological in nature. The closest recorded archaeological site is located c.140m to the south and consists of a defensive ditch dating to WWII (R26/820). There are also four recorded sites associated with Māori occupation located between 760 and 840m from the northern boundary of the variation area: R26/803, R26/804, R26/805 and R26/806 (pits and terraces). It is noted that these sites have been recorded after the 2019 appraisal report was prepared. The presence of these sites indicates that there is some potential for sites to also be present in the variation area and a survey should be undertaken in Lot 2 DP 534864 prior to any resource consent applications in the future to determine if any evidence of archaeological features or deposits can be identified.

The archaeological value of sites relates mainly to their information potential, that is, the extent to which they can provide evidence relating to local, regional and national history using archaeological investigation techniques, and the research questions to which the site could contribute. The surviving extent, complexity and condition of sites are the main factors in their ability to provide information through archaeological investigation. For example, generally pā are more complex sites and have higher information potential than small midden (unless of early date). Archaeological value also includes contextual (heritage landscape) value. Archaeological sites may also have other historic heritage values including historical, architectural, technological, cultural, aesthetic, scientific, social, spiritual, traditional and amenity values.

Effects of Future Development

Based on current knowledge, future development resulting from the proposed variation will have no known effects on archaeological values as no archaeological sites have been recorded within the boundaries of the variation area and none were identified during the survey of Lot 1 DP 534864 undertaken in 2019.

However, the following measures are recommended at the detailed planning stage to determine if an archaeological authority will be required for any areas of future development, or whether Accidental Discovery Procedures can be relied on should an unrecorded archaeological site be encountered during future development:

1. Survey of areas not included in the 2019 survey.
2. Subsurface testing of the depressions identified as possible archaeological features.
3. Inspection of the wool shed and cottage by a built heritage specialist to establish their historic heritage values and whether either or both are 19th century in date (i.e. whether they also have archaeological values).

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 and crockery, ditches, banks, pits, old building foundations, artefacts of Māori and early European origin or human burials.

Resource Management Act 1991 Requirements

Section 6 of the 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 Porirua City District Plan is relevant to the proposed activity.

There are no scheduled historic heritage sites located on the property. This appraisal has established that based on current knowledge, future development of the variation area will have no effect on any known archaeological sites and has low potential to affect unrecorded subsurface remains. However, a detailed assessment that includes a survey of areas not included in the 2019 survey and subsurface testing to determine the origin of the depressions noted during the 2019 survey are recommended at the detailed planning stage to determine if archaeological remains can be identified.

As well, further survey and evaluation of the historic heritage significance of the wool shed and cottage should be undertaken by a built heritage specialist. This will be required prior to any resource consent applications in the future.

Heritage New Zealand Pouhere Taonga Act 2014 Requirements

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.

Based on current knowledge, an archaeological authority will not be required for the future development within the variation area as no known sites will be affected. However, if archaeological sites are identified during field survey at the consent stage and are affected

by future development, an Authority issued under the HNZPTA would be required prior to the commencement of site works (*note this is a legal requirement*).

It is also noted that if the wool shed or cottage are found to have 19th century construction dates, they would qualify as archaeological sites under the HNZPTA and an Authority issued by Heritage NZ would be required if either is to be demolished.

Conclusions

No archaeological sites have previously been recorded in the variation area and none were identified during the 2019 field survey of Lot 1 DP 534864 or current desk-top study encompassing both Lots. The land has been modified by bush clearance and farm activity. The only potential archaeological features identified during the survey consisted of depressions that could not be confirmed as archaeological features through visual inspection. As parts of the variation area were not included in the 2019 survey, additional survey, including subsurface testing of possible archaeological features is recommended at the detailed planning stage to determine if any archaeological features or deposits can be identified.

Overall the archaeological potential of the property to contain complex sites is considered to be low, and the effects of future development on archaeological values in the proposed variation area are likely to be low. Any adverse effects on archaeological values could be appropriately mitigated by recording and information recovery under the archaeological provisions of the HNZPTA. There are no specific provisions recommended to be included in the variation rules or standards.

RECOMMENDATIONS

- Based on current knowledge there should be no constraints on the proposed variation on archaeological grounds, as no known archaeological sites will be affected, and the possibility that archaeological remains may be present can be appropriately mitigated through the provisions of the HNZPTA.
- Additional survey of the parts of the variation area not included in the 2019 survey should be undertaken prior to the resource consent stage to determine if any archaeological features or deposits can be identified.
- Subsurface testing to determine the origin of the depressions identified during the 2019 survey should be carried out to determine if they are archaeological in nature.
- Further assessment of the wool shed and cottage should be undertaken by a built heritage specialist to assess the historic heritage values and determine if the structures have a 19th century construction date, so that the potential effects of future development on archaeological/historic heritage values can be established.
- A detailed assessment report should be prepared including the results of bullet points 2, 3 and 4 and if any adverse effects on archaeology are identified recommendations for appropriate mitigation should be made. These would generally consist of recording and information recovery under the archaeological provisions of the HNZPTA, and retention or adaptive reuse of the woolshed and cottage, depending on their assessed heritage values.
- Since archaeological survey cannot always detect sites of traditional significance to Māori, such as wāhi tapu, the tangata whenua should be consulted regarding the possible existence of such sites in the variation area.

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Evening Post Volume CXL Issue 141, 12 December 1945

Wellington Independent Volume XXIV Issue 2878, 19 August 1869

Evening Post Volume 5 Issue 106, 6 August 1869

APPENDIX 3: NZAA ArchSite Site Record Form – R26/885: Pre-1900 Cottage.

NZAA Site Number - R26/885

Zoom to

Site Type	Historic - domestic
Inspection By	Harsveldt, Patrick
Inspection Date	22/8/25, 1:30 pm
Finder Aid	The cottage (E1758218 N5454349) is located on the current Mt Welcome Station, 422 and 422A State Highway 59, Pukerua Bay, Porirua.
Site Features	
Description	Updated 13/11/2025 (Field Visit), submitted by: WSP_PatrickHarsveldt_ArchSite, visited 22/08/2025 by Harsveldt, Patrick The August 2025 site inspection of buildings at Mt Welcome Station confirmed the location of one above-ground archaeological site, namely the extant cottage. This dwelling is believed to have been constructed prior to 1900 on the basis of key building features and materials.

NZAA Site Number - R26/885

Zoom to

	The cottage was a timber frame dwelling clad in plain weatherboard (overlapping planks without grooves or chamfers) with a gabled roof and bullnose veranda roof clad in corrugated iron. There was evidence of lean-to extensions to the rear, including the presence of cover boards concealing joints, differences in window design, and differences in stylistic detailing. It was not possible to view inside the roof void (of the gable) or the building foundations. The oldest interior fabric identified were the double-hung timber sash window frames, four-panel doors, moulded timber architraves, and skirting boards. The interior plasterboard and modern timber TG&V linings may have covered remaining intact original fabric such as timber sarking. Generally, door hardware, fixtures and fittings had all been replaced over time.

NZAA Site Number - R26/885

Zoom to

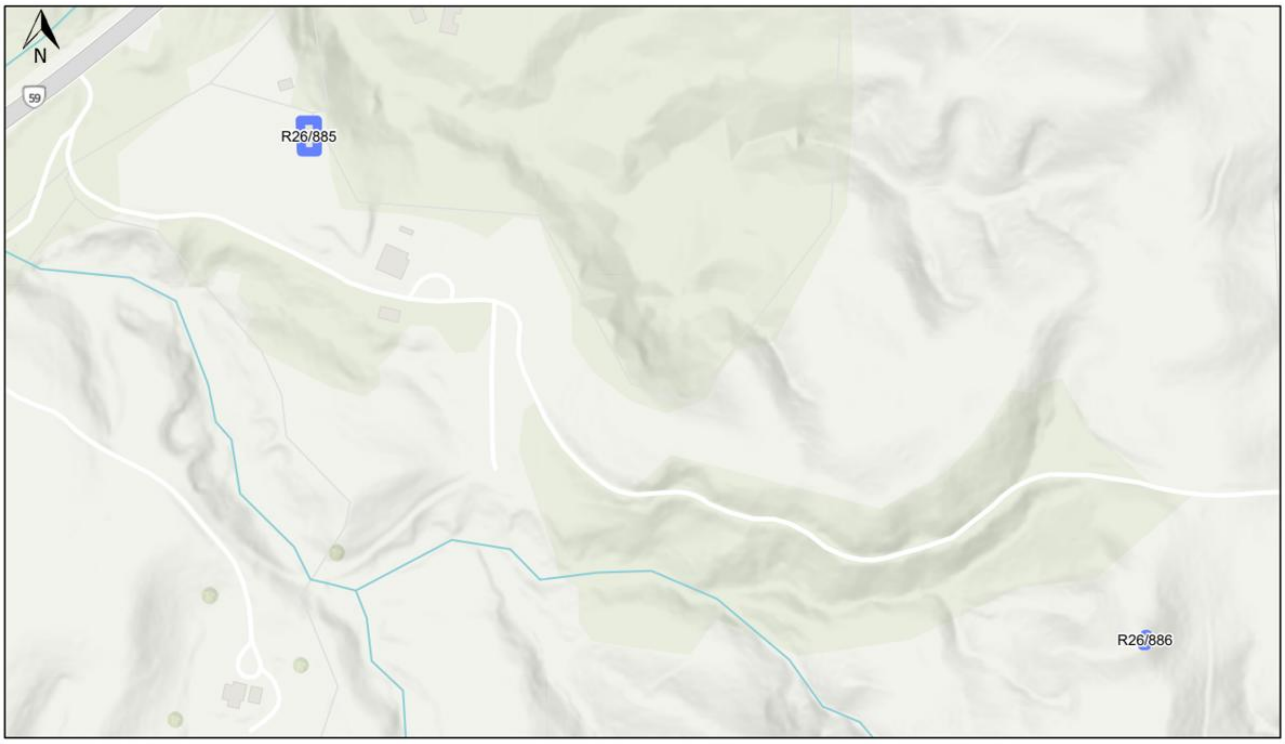
	Although New Zealand cottages and villas were popular forms of domestic dwellings constructed in both the 19th and early 20th centuries, these buildings experienced stylistic and building construction detail changes over time that provide clues as to their age. For example, early cottages and villas built prior to 1900 typically featured plain circular-sawn weatherboards as they were easy to mill because they did not require any grooves or other form of shaping. By 1900, dressed rusticated weatherboards had replaced these as the popular cladding on newly constructed cottages and villas. The presence of plain weatherboard at the cottage therefore suggests that it was constructed in the late 19th century, prior to the common use of rusticated weatherboard. Other features that may corroborate this are hidden and could only be revealed through intrusive investigation; for example, the use of mortice and

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Zoom to

	tenon joints in the building frame rather than nails. For further information refer to: Harsveldt, P. 2025. Archaeological Assessment of Effects Addendum: Mt Welcome Station Subdivision Development, Pukerua Bay, Porirua. Prepared for Pukerua Property Group LP. Heritage & Archaeology Services Ltd.
Name	Pre-1900 Cottage - Mt Welcome Station
Other Name	
Ethnicity	Non Maori
Site Periods	Colonial 1840-1900
Associated Sites	
Condition Value	Good
Condition Notes	Updated 13/11/2025 (Field Visit), submitted by: WSP_PatrickHarsveldt_ArchSite, visited 22/08/2025 by Harsveldt,

	Patrick The cottage is located on the current Mt Welcome Station, Pukerua Bay, Porirua.
Land Use	Rural residential
Threats	
Evidence	
Imperial	



APPENDIX 4: NZAA ArchSite Site Record Form – Potential Māori Pit Feature

NZAA Site Number - R26/886

Zoom to

Update Type	Field Visit
Site Type	Pit/Terrace
Inspection By	Harsveldt, Patrick
Inspection Date	13/8/25, 12:30 pm
Finder Aid	Mt Welcome Station, 422 and 422A State Highway 59, Pukerua Bay, Porirua. Handheld GPS coordinates: E1758687 N5454068 (Garmin Montana 650T).
Site Features	Pit
Description	Updated 13/11/2025 (Field Visit), submitted by: WSP_PatrickHarsveldt_ArchSite, visited 13/08/2025 by Harsveldt, Patrick This potential Māori Pit feature was a large oval-shaped depression (c. 4.5 m x 1.4 m) and approximately 300 mm deep, which was located at the summit of the hill (c. 136m above sea level). There was evidence of

NZAA Site Number - R26/886

Zoom to

	previous modification by livestock (deer). Handheld GPS coordinates: E1758687 N5454068 (Garmin Montana 650T). This feature is located in an area of the proposed Mt Welcome subdivision development, named the Upper Terrace and will be affected by proposed project earthworks at this location. For further information refer to: Harsveldt, P. 2025. Archaeological Assessment of Effects Addendum: Mt Welcome Station Subdivision Development, Pukerua Bay, Porirua. Prepared for Pukerua Property Group LP. Heritage & Archaeology Services Ltd.
Name	
Other Name	
Ethnicity	Maori
Site Periods	Indigenous pre-1769

Site Periods	Indigenous pre-1769
Associated Sites	
Condition Value	Good
Condition Notes	
Land Use	Grazing
Threats	
Evidence	
Imperial	

