

North West Whenuapai Assessment of Heritage / Archaeology Effects

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Abbreviations

Acronym/Term	Description
AEE	Assessment of Effects on the Environment
AT	Auckland Transport
AUP:OP	Auckland Unitary Plan Operative in Part
CHI	Cultural Heritage Inventory
FTN	Frequent Transit Network
FUZ	Future Urban Zone
HNZPT	Heritage New Zealand Pouhere Taonga
HNZPTA	Heritage New Zealand Pouhere Taonga Act 2014
NoR	Notice of Requirement (under the Resource Management Act 1991)
NZAA	NZ Archaeological Association
PPC5	Proposed Plan Change 5
RMA	Resource Management Act 1991
SH16	State Highway 16
SH18	State Highway 18
Te Tupu Ngātahi	Te Tupu Ngātahi Supporting Growth Programme
Waka Kotahi	Waka Kotahi NZ Transport Agency
WW2	World War 2

Glossary of Acronyms / Terms

Acronym/Term	Description
Auckland Council	Means the unitary authority that replaced eight councils in the Auckland Region as of 1 November 2010.
koiwi	Human remains
tikanga	Customs: “the way things are done”
wāhi tapu	Sacred place
Whenuapai Assessment Package	Four Notices of Requirement and one alteration to an existing designation for the Whenuapai Arterial Transport Network for Auckland Transport.

1 Executive Summary

Assessment undertaken

The assessment is based on:

- A review of the heritage databases at Auckland Council, New Zealand Archaeological Association Site Recording Scheme and Heritage New Zealand Pouhere Taonga (**HNZPT**)
- a review of historic maps
- published and unpublished publications on the history of the study area
- previously undertaken archaeological investigations and research
- landscape and environment
- oral traditions where available

Assessment criteria used are from:

- Heritage New Zealand Pouhere Taonga Act (HNZPTA)
- Resource Management Act (RMA)
- Auckland Unitary Plan Operative in Part (**AUP:OP**)

All cultural heritage sites, archaeological sites and risk areas where unrecorded, sub surface archaeological features could be encountered within 200 metres of the extent of each notice of requirement (**NoR**) are considered as part of this assessment.

NoR W1 Trig Road (North)

Results of assessment and recommended measures

There are no recorded historic heritage or archaeological sites within the extent of NoR W1. One historic anti-aircraft gun emplacement is within 200m of the extent. This site will be discussed further as part of NoR W4 as it is not impacted by the works on NoR W1. As a result, there are no adverse effects on recorded historic heritage or archaeological sites by NoR W1.

Construction around wetlands and streams will allow environmental archaeological research to be undertaken that could clarify the dates, sequence and details of the anthropogenic vegetation change from forest to open fern lands as it was in 1853.

The potential for unrecorded archaeological deposits and features to be encountered needs to be taken into account for all earthworks that include topsoil stripping, not just within the extent of NoR W1, but also other areas such as haul roads and laydown areas. Once the earthworks are finished there will be no effects on archaeological or heritage sites during operation of NoR W1.

There is a small risk of potential adverse effects due to unrecorded archaeological sites being encountered. However as there are no navigable stream crossings within NoR W1, the risk of encountering unrecorded archaeological sites is small. This small risk of encountering unrecorded archaeological features can be mitigated by obtaining a precautionary archaeological authority from HNZPT under the HNZPTA.

Any processes regarding tikanga, especially around koiwi, should be discussed with mana whenua before the start of the project.

Conclusion

In conclusion there are no significant adverse effects on historic heritage or archaeological sites from NoR W1.

NoR W2 Māmari Road

Results of assessment and recommended measures

There are no heritage sites or archaeological sites recorded within the extent of NoR W2.

Construction around wetlands and streams will allow environmental archaeological research to be undertaken that could clarify the dates, sequence and details of the anthropogenic vegetation change from forest to open fern lands as it was in 1853.

The potential for unrecorded archaeological deposits and features to be encountered needs to be taken into account for all earthworks that include topsoil stripping not just within the extent of NoR W2, but also other areas such as haul roads and laydown areas. Once the earthworks are finished there will be no effects on archaeological or heritage sites during operation of NoR W2.

The crossing of the Sinton Stream which leads into the Totara Creek has the potential to have unrecorded archaeological features. The risk of encountering unrecorded archaeological features can be mitigated by obtaining a precautionary archaeological authority from HNZPT under the HNZPTA.

Any processes regarding tikanga, especially around koiwi, should be discussed with mana whenua before the start of the project.

Conclusion

In conclusion there are no significant adverse effects on historic heritage as a result of NoR W2, and there are no residual adverse effects on historic heritage with the recommended mitigation in place.

NoR W3 Brigham Creek Road

Results of assessment and recommended measures

There are no recorded archaeological sites or historic heritage sites within the extent of NoR W3. However a shell midden site is close by and indicates that the stream crossings (Totara Creek and Waiarohia Stream) are high risk areas for the discovery of sub surface and unrecorded archaeological features. A group of 4 native trees along Airport Road are on the AUP:OP list of notable trees. However, they are outside the proposed designation boundary.

Construction around wetlands and streams will allow environmental archaeological research to be undertaken that could clarify the dates, sequence and details of the anthropogenic vegetation change from forest to open fern lands as it was in 1853.

The potential for unrecorded archaeological deposits and features to be encountered needs to be taken into account for all earthworks that include topsoil stripping, not just within the extent of NoR W3, but also within other areas such as haul roads and laydown areas. Once the earthworks are finished there will be no adverse effects on archaeological or heritage sites during operation of NoR W3.

As set out above, two navigable stream crossings close to a recorded archaeological site present a reasonable risk of unrecorded archaeological features being encountered. The risk of encountering unrecorded archaeological features can be mitigated by obtaining a precautionary archaeological authority from HNZPT under the HNZPTA.

Any processes regarding tikanga, especially around koiwi, should be discussed with mana whenua before the start of the project.

Conclusion

In conclusion there are no residual adverse effects on historic heritage with the recommended mitigation in place.

NoR W4 Spedding Road

Results of assessment and recommended measures

There are no historic heritage sites or archaeological sites recorded within the extent of NoR W4. However a World War 2 (**WW2**) anti-aircraft gun emplacement consisting of several gun pits and ancillary buildings of various functions is recorded in the Cultural Heritage Inventory (**CHI**) and is adjacent to NoR W4. There is a risk that some subsurface features could be found during construction of NoR W4. However the current condition of the site is not recorded as recently a house has been built close to the structures. A plan change has also been proposed (**PPC5**) for a heritage overlay for this site.

There is also a risk that archaeological features may be uncovered at the stream crossing of the Totara Creek. The stream crossings of the Waiarohia and Rāwiri streams present a low risk of unidentified archaeological features being uncovered as both streams have been recently modified.

Construction around wetlands and streams will allow environmental archaeological research to be undertaken that could clarify the dates, sequence and details of the anthropogenic vegetation change from forest to open fern lands as it was in 1853.

The potential for unrecorded archaeological deposits and features to be encountered needs to be taken into account for all earthworks that include topsoil stripping not just within the extent of NoR W4, but also within other areas such as haul roads and laydown areas. Once the earthworks are finished there will be no effects on archaeological or heritage sites during operation of NoR W4.

As set out above, there is a low risk of encountering subsurface ancillary structures belonging to the WW2 gun emplacements. As they are not archaeological sites but can be considered having heritage value under the AUP:OP criteria of historical, technological and contextual values, discussions with the Auckland Council Heritage Unit are encouraged.

The small risk of encountering unrecorded archaeological features can also be mitigated by a precautionary archaeological authority being obtained from HNZPT under the HNZPTA.

Any processes regarding tikanga, especially around koiwi, should be discussed with mana whenua before the start of the project.

Conclusion

In conclusion there are no residual adverse effects with the recommended mitigation in place.

NoR W5 Hobsonville Road

Results of assessment and recommended measures

Within the 200m buffer of NoR W5, several historic heritage structures and notable trees are recorded. Apart from one notable tree located within NoR W5 there is little risk of encountering archaeological sites during construction of NoR W5.

Construction around wetlands and streams will allow environmental archaeological research to be undertaken that could clarify the dates, sequence and details of the anthropogenic vegetation change from forest to open fern lands as it was in 1853.

The potential for unrecorded archaeological deposits and features to be encountered needs to be taken into account for all earthworks that include topsoil stripping not just within the extent of NoR W5, but also within other areas such as haul roads and laydown areas. Once the earthworks are finished there will be no effects on archaeological or heritage sites during operation of NoR W5.

The small risk of encountering archaeological features during construction could be mitigated by applying for an archaeological authority for pre and post Contact archaeological features from HNZPT under the HNZPTA.

Any processes regarding tikanga, especially around koiwi, should be discussed with mana whenua before commencing the project.

Conclusion

In conclusion there are no significant adverse effects on historic heritage due to NoR W5 and there are no residual adverse effects with the recommended mitigation in place.

2 Introduction

This historic heritage / archaeology assessment has been prepared for the North West Local Arterial Network Notices of Requirement (**NoRs**) for Auckland Transport (**AT**) (the “Whenuapai Assessment Package”). The NoRs are to designate land for future local arterial transport corridors as part of Te Tupu Ngātahi Supporting Growth Programme (**Te Tupu Ngātahi**) to enable the construction, operation and maintenance of transport infrastructure in the North West Whenuapai area of Auckland.

The North West growth area is approximately 30 kilometres north west of Auckland’s central city. It makes a significant contribution to the future growth of Auckland’s population by providing for approximately 42,355 new dwellings and employment activities that will contribute 13,000 new jobs across the North West. Whenuapai is one of these growth areas, located between State Highway 16 (**SH16**) and State Highway 18 (**SH18**) and at present is largely rural (but Future Urban Zoned) with an existing community consisting of new and more established residential, business and local centre land uses. This growth area is expected to be development ready by 2018-2022 with 401 hectares to accommodate 6,000 dwellings. Furthermore, a Whenuapai Structure Plan was adopted by the Council in 2016 and sets out the framework for transforming Whenuapai from a semi-rural environment to an urbanised community over the next 10 to 20 years.

The Whenuapai Assessment Package will provide route protection for the local arterials, which include walking, cycling and public transport (including the Frequent Transit Network (**FTN**)), needed to support the expected growth in Whenuapai.

This report assesses the effects on historic heritage / archaeology of the North West Whenuapai Assessment Package identified in Figure 5-1 and Table 2-1 below.

The Whenuapai Assessment Package comprises five separate projects which together form the North West Whenuapai Arterial Network. The network includes provision for general traffic, walking and cycling, and frequent public transport

Refer to the main Assessment of Effects on the Environment (**AEE**) for a more detailed project description.

Table 2-1: North West Whenuapai Assessment Package – Notices of Requirement and Projects

Notice	Project
NoR W1	Trig Road North
NoR W2	Māmari Road
NoR W3	Brigham Creek Road
NoR W4	Spedding Road
NoR W5	Hobsonville Road (alteration to existing designation 1437)

2.1 Purpose and Scope of this Report

This assessment forms part of a suite of technical reports prepared to support the assessment of effects within the Whenuapai Assessment Package. Its purpose is to inform the AEE that

accompanies the four NoRs and one alteration to an existing designation for the Whenuapai Assessment Package sought by AT.

This report considers the actual and potential effects associated with the construction, operation and maintenance of the Whenuapai Assessment Package on the existing and likely future environment as it relates to effects on historic heritage and archaeology and recommends measures that may be implemented to avoid and/or mitigate these effects.

The key matters addressed in this report are as follows:

- a) Identify and describe the known historic heritage, archaeological sites, areas of risk to encounter unrecorded sites and context of the Whenuapai Assessment Package area;
- b) Identify and describe the actual and potential effects on historic heritage and archaeological sites of each project corridor within the Whenuapai Assessment Package;
- c) Recommend measures as appropriate to avoid or mitigate actual and potential effects on historic heritage and archaeological sites (including any conditions/management plan required) for each project corridor within the Whenuapai Assessment Package; and
- d) Present an overall conclusion of the level of actual and potential effects on historic heritage and archaeological sites for each project corridor within the Whenuapai Assessment Package after recommended measures are implemented.

This report is not considering Māori cultural values and / or wāhi tapu. Mana whenua will have to be consulted for those values and places.

2.2 Report Structure

The report is structured as follows:

- a) Overview of the methodology used to undertake the assessment and identification of the assessment criteria and any relevant standards or guidelines.
- b) Description of each project corridor and project features within the Whenuapai Assessment Package as it relates to historic heritage and archaeology.
- c) Identification and description of the existing and likely future heritage landscape, separated into physical environment, Māori settlement history, European settlement history and previous archaeological projects as far as it is relevant to describe positive and adverse effects.
- d) Description of the actual and potential positive effects on heritage and archaeology of each project corridor.
- e) Description of the actual and potential adverse effects on heritage and archaeology of construction of each project corridor.
- f) Description of the actual and potential adverse effects on heritage and archaeology of operation of each project corridor.
- g) Recommended measures to avoid or mitigate potential adverse effects on heritage and archaeology; and
- h) Overall conclusion of the level of potential adverse effects on heritage and archaeology of each project corridor after recommended measures are implemented.

This report should be read alongside the AEE, which contains further details on the background and context of the project. The AEE also contains a detailed description of works to be authorised for the project, likely staging and the typical construction methodologies that will be used to implement this work. These have been reviewed by the author of this report and have been considered as part of this assessment of effects on historic heritage and archaeology. As such, they are not repeated here,

unless a description of an activity is necessary to understand the potential effects, then it has been included in this report for clarity.

2.3 Preparation for this Report

Preparation for this report included desktop investigations and drive by visits from public land.

Sources for desktop research include:

- NZ Archaeological Association (NZAA) online site recording database Archsite
- LINZ database of historic maps and survey plans via Quickmaps
- Heritage New Zealand Heritage List/ Rārangī Kōrero
- Heritage New Zealand online reports database
- Auckland Council Geomaps GIS viewer
- Auckland Council CHI
- Auckland Council Archives (online resources)
- Archives New Zealand (online resources)
- Local histories – published and unpublished
- Archaeological reports
- Aerial photographs
- National Library cartographic collection
- Alexander Turnbull Tiaki online collection
- Auckland Museum pictorial collections

The following archaeological reports were of particular interest:

Foster, R., Felgate, M., 2011, *Archaeological Investigation of Field Cottage and Ocklestone House*, Unpublished report to NZ Transport Agency, Auckland.

Hawkins, S., Campbell, M., 2020, *120 Hobsonville Road, R11/2965 (HNZPTA authority 2019/697): final report*, Unpublished report to Savill and Foodstuffs Ltd, Auckland.

MacReady, S., 2019, *SH16 IMPROVEMENTS, BRIGHAM CREEK TO WAIMAUKU: PRELIMINARY ARCHAEOLOGICAL ASSESSMENT*, Unpublished report to NZ Transport Agency Safe Roads Alliance, Auckland.

Shackles, R. et.al., 2019, *COASTAL WALKWAY SUNDERLAND-HUDSON PRECINCT, HOBSONVILLE POINT: ARCHAEOLOGICAL MONITORING AND INVESTIGATION REPORT*, Unpublished report to Hobsonville Land Company, Auckland.

The drive by visits used only public roads and public land to get close to areas of interest pinpointed by the desktop research. It was decided that a detailed site visit with landowner notification is not necessary for the NoR surveys. The risk to historic heritage and the archaeological resource could be sufficiently assessed without going onto private land.

As a result of the site visits both Auckland Council and HNZPT officers were contacted for latest, up to date information for specific sites.

Photos were taken during the site visits and the locational information updated as required.

3 Assessment Methodology

3.1 Statutory Requirements

There are two main pieces of legislation in New Zealand that control work affecting archaeological sites. These are the HNZPTA and the RMA.

This assessment considers heritage places and archaeological sites as defined in the HNZPTA, scheduled sites in the AUP:OP and also heritage sites that are recognised in the Auckland Council CHI.

3.1.1 Heritage New Zealand Pouhere Taonga Act 2014

HNZPT administers the HNZPTA. The HNZPTA contains a consent (authority) process for any work affecting archaeological sites, where an archaeological site is defined as:

- “6(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*
- 6(b) includes a site for which a declaration is made under section 43(1)”*

Any person, who intends carrying out work that may damage, 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 unauthorized site damage or destruction.

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

- The site is recorded in the NZAA Site Recording Scheme or registered by HNZPT;
- The site only becomes known about 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 Rārangī Kōrero of Historic Places, Historic Areas, Wāhi Tupuna/Tipuna, Wāhi Tapu and Wāhi Tapu Areas. The New Zealand Heritage List Rārangī Kōrero includes some significant archaeological sites. The purpose of The New Zealand Heritage List Rārangī Kōrero is to inform members of the public about such places and to assist with their protection under the RMA.

3.1.2 Resource Management Act 1991

The RMA promotes the sustainable management of natural and physical resources (RMA Section 2, 5(1)).

RMA Section 2, 5(2) states that:

In this Act, **sustainable management** means managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—

- (a) *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations*

The protection of historic heritage from inappropriate subdivision, use, and development is identified as a matter of national importance (section 6(f)).

Historic heritage is defined in the RMA as those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, derived from archaeological, architectural, cultural, historic, scientific, or technological qualities.

Historic heritage includes (RMA, section 2):

- historic sites, structures, places, and areas;
- archaeological sites;
- sites of significance to Maori, including wāhi tapu; and
- surroundings associated with the natural and physical resources

These categories are not mutually exclusive and some archaeological sites may include above ground structures or may also be places that are of significance to Māori. In Auckland the AUP:OP has specific provisions for historic heritage and places of significance to mana whenua. Those places of significance to mana whenua also have the potential to contain archaeological value. It is noted that scheduled historic heritage places have a stronger protection than archaeological sites that are not scheduled in the AUP:OP.

3.1.3 Assessment Criteria

“Archaeological values relate to the potential of a place to provide evidence of the history of New Zealand. This potential is framed within the existing body of archaeological knowledge, and current research questions and hypotheses about New Zealand’s past. An understanding of the overall archaeological resource is therefore required” (Heritage New Zealand Pouhere Taonga 2019:9).

The assessment criteria are split into two sections: Main Archaeological values and Additional values:

The first archaeological values look at an *intra* (within the) **site** context.

- **Condition:**
How complete is the site? Are parts of it already damaged or destroyed?
Condition varies from undisturbed to destroyed and every variation in between. It is also possible that the condition of different parts of the site varies.
- **Rarity/Uniqueness:**
Rarity can be described in a local, regional and national context. Rarity can be rare as a site, or rarely examined or today a rare occurrence in the records.
- **Information Potential:**
How diverse are the features to be expected during an archaeological excavation on the site?
How complete is the set of features for the type of site?
Can the site inform about a specific period or specific function?

The second set of archaeological values are ***inter site*** (*between sites*) context criteria:

- **Archaeological landscape / contextual value:**

What is the context of the site within the surrounding archaeological sites?

The question here relates to the part the site plays within the surrounding known archaeological sites. A site might sit amongst similar surrounding sites without any specific features. Or a site might occupy a central position within the surrounding sites. Though a site can be part of a complete or near complete landscape, whereby the value of each individual site is governed by the value of the completeness of the archaeological landscape.

- **Amenity value:**

What is the context of the site within the physical landscape?

This question is linked to the one above but focuses onto the position of the site in the landscape. Is it a dominant site with many features still visible or is the position in the landscape ephemeral with little or no features visible? This question is also concerned with the amenity value of a site today and its potential for onsite education.

- **Cultural Association:**

What is the context of the site within known historic events or to people?

This is the question of known cultural association either by tangata whenua or other descendant groups. This question is also concerned with possible commemorative values of the site.

Other values could include (Heritage New Zealand Pouhere Taonga 2019:9):

- Architectural
- Historic
- Scientific
- Technological
- Cultural

The last value, cultural, acknowledges if there is an impact on Māori cultural values. This assessment will not evaluate these, but rather state their relevance in relation to the other values. The HNZPTA requires an assessment of Maori values as part of archaeological authority applications. Generally, HNZPT prefers that such an assessment be provided by tangata whenua (Heritage New Zealand Pouhere Taonga 2019:10).

In addition, the AUP:OP (Part 1, Chapter B: 5.2.2) outlines a place as having historic heritage value if it has one or more of the following values:

Identify and evaluate a place with historic heritage value considering the following factors:

- historical: the place reflects important or representative aspects of national, regional or local history, or is associated with an important event, person, group of people, or with an idea or early period of settlement within New Zealand, the region or locality;
- social: the place has a strong or special association with, or is held in high esteem by, a particular community or cultural group for its symbolic, spiritual, commemorative, traditional or other cultural value;
- (c) Mana Whenua: the place has a strong or special association with, or is held in high esteem by, Mana Whenua for its symbolic, spiritual, commemorative, traditional or other cultural value;

- (d) knowledge: the place has potential to provide knowledge through archaeological or other scientific or scholarly study, or to contribute to an understanding of the cultural or natural history of New Zealand, the region, or locality;
- (e) technology: the place demonstrates technical accomplishment, innovation or achievement in its structure, construction, components or use of materials;
- (f) physical attributes: the place is a notable or representative example of:
 - (i) a type, design or style;
 - (ii) a method of construction, craftsmanship or use of materials; or
 - (iii) the work of a notable architect, designer, engineer or builder;
- (g) aesthetic: the place is notable or distinctive for its aesthetic, visual, or landmark qualities;
- (h) context: the place contributes to or is associated with a wider historical or cultural context, streetscape, townscape, landscape or setting.

The methodology applies to all NoRs (NoRs W1, W2, W3, W4 and W5) and to both construction and operation stages.

4 Background

4.1 Physical Environment

The physical environment is low lying and undulating. The study area (for all NoRs) is framed by the Ngongetepara Stream (off Brigham Creek) with the Totara Creek as a side stream and the Waiarohia Creek and Stream. The latter forms a natural boundary to the Hobsonville peninsula, called Onekiritea in pre-Contact times.

The soils of the area are allophanic soils impeded (LI) (<https://soils-maps.landcareresearch.co.nz/>). These soils are made from volcanic materials and this is reflected by the area made from East Coast Bays formation (Mwe: sand and mudstone with mixed volcanic content – see code in Figure 1), Puketoka formation (Pup: pumiceous mud, sand and gravel including alluvial deposits – see code in Figure 1) and Taupo Pumice alluvium (Q1a: estuarine and swamp deposits – see code in Figure 1) (Figure 1).

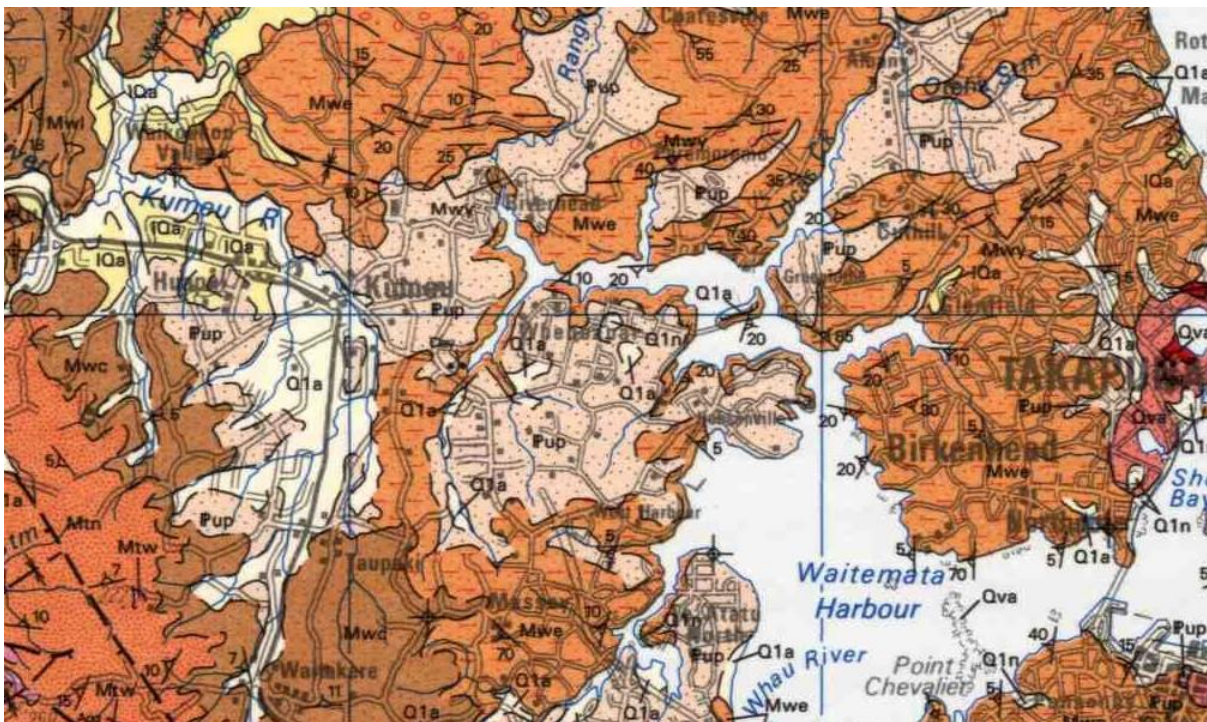


Figure 1: Detail of geological map, Auckland (Copyright Crown).

Historically the area was covered in Kauri forest like the rest of West Auckland, but with contact since European settlement this forest has given way to ‘undulating fern lands’ (Figure 2).

The modern use of the land for farming and grazing shows that the volcanic content of the soils adds fertility to the general silty clay soils. The Māori name of the Hobsonville area ‘Onekiritea’ relates to the whiteness of the clay soils in the area. The question is therefore how the area was used in pre-Contact times. The fertility of the soil would have supported growing of taro and other crops and swamps were seen as ‘food baskets’ for birds, eels and other resources like raupo. Is the observed deforestation during pre-Contact times simply a matter of burning the forest or is it a sign of horticulture that left little archaeological signatures?



Figure 2: Detail of: 'Waitemata River from Kauri Point Auckland Harbour to its sources, surveyed by Comr. B. Drury and the officers of H.M.S. Pandora 1854'-(Auckland Libraries Heritage Collections Map 3909).

4.2 Pre-Contact Settlement

Whenuapai is on the cross roads for several portages between Kaipara and Waitemata Harbour and close to one of the portages between Waitemata and Manukau harbours, Ngongitepata and Te Whau (Hooker 1997). The meaning of the 'Whenua pai' might be 'fertile' or 'good' land (Simmons 1980) which contradicts the view of the early European settlers of the land being of poor quality as it is low lying, often flooded and clay soils (Rutherford 1940). An alternative, possibly older Māori name of the area is Waimarie which could be translated as 'calm water' (Simmons 1980). Most recorded archaeological sites are along the harbour or creek edges indicating that exploitation of kai moana was an important food source.

Like most places in Tāmaki Makaurau many different iwi have a relationship with the place. Te Kawerau, Wai o Hua and Ngāti Whātua and their many hāpu had a particular influence in the study area. The most recent of these inter tribals conflicts was attacks by Ngāpuhi under Hongi Heke. Armed with muskets they inflicted a defeat on Ngāti Whātua as utu for being defeated in the previous century. For some years few people lived in the district as Ngāpuhi did not establish settlements (<https://www.kaiparamoana.com/k-rero-o-mua-our-history>).

One of the first visits by a European to the area was by Samuel Marsden in 1820 who reported that plenty of food was around the Kaipara. Ngāti Whātua settlements near Kumeū are reported for this period (Dunsford 2002; Stone 2001).

4.3 Post Contact Settlement

For a short moment in time Governor Hobson considered Hobsonville as an area to start the Auckland settlement (Foster and Felgate 2011).

Between 1844 and 1865 pre-emptive waiver transactions, Crown purchases and Native Land Court sales reduced Māori customary land occupation in the Kaipara area to about a third of its pre-Contact size¹.

The Waiparera Block is part of the study area. It was sold to the Crown in 1853 (Turton 1877). It is one example how the land changed hands. Brigham's land claim and later Crown Grant in 1857 is another example. Brigham's Creek is named after this land speculator.

Dense Kauri forest within the Kumeū area and throughout the Waitakere Ranges drew European commerce into the area. Within a few decades all timber able to be milled was cut down (Morris 1996). Gum diggers followed the timber mills, but little is known of this activity through historic sources.

Towards the end of the 19th century the clay on the Hobsonville peninsula and surrounding areas was used for brick and pipe works which supplied the growing Auckland with this valuable building resource.

4.4 Archaeological Background

The NZAA Site Record Scheme has several site records close to the study area. It is mainly coastal shell midden and a few early historic structures. Historic structures including WW2 structures are recorded in Auckland Council's CHI. Several sites from both these databases are scheduled in the AUP:OP.

Each NoR, including the transport corridors, wetlands and construction areas, has been buffered by 200 metres and all recorded historic sites as well as archaeological site potential are discussed individually in relation to these individual buffer zones. Accurate locations are not available for the older recorded archaeological sites and the sub surface extent of historic heritage sites and archaeological sites can be much larger than the surface features indicate. A 200 m buffer zone mitigates those limitations of the existing records.

¹ <https://www.kaiparamoana.com/wai312-claim-to-settlement>

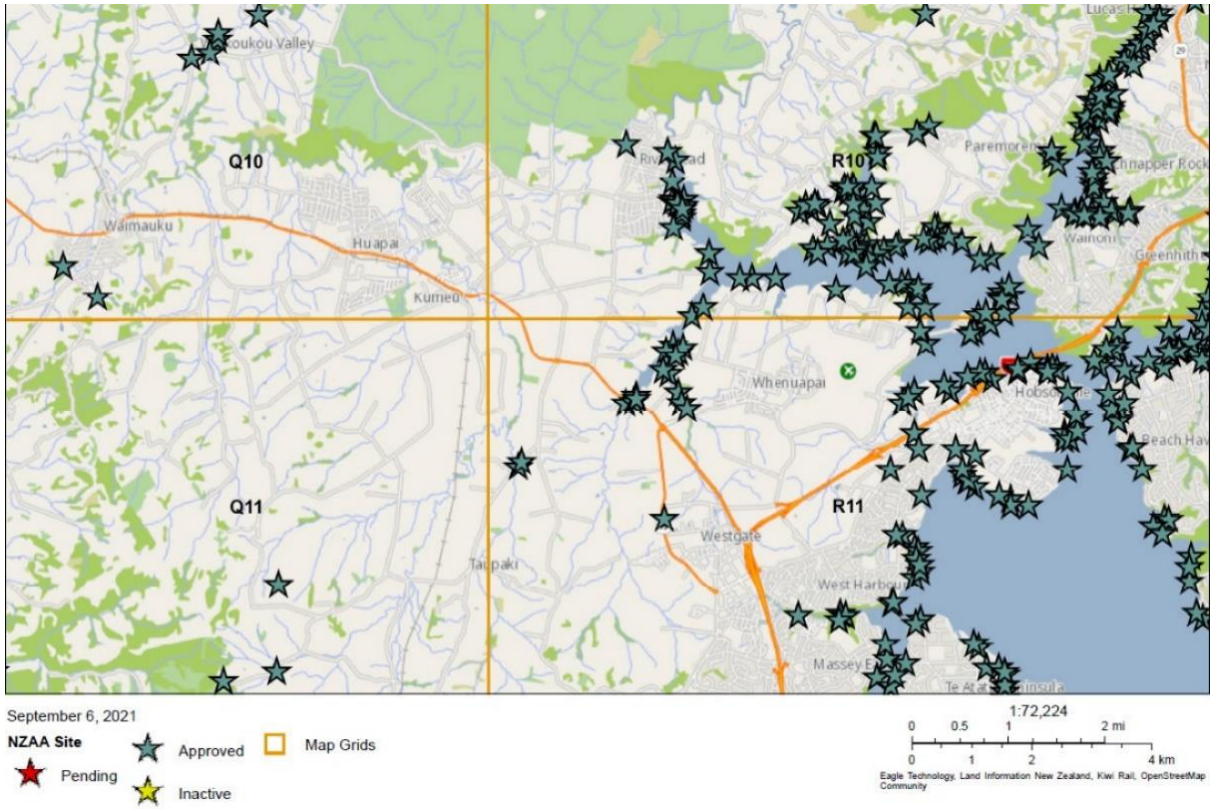


Figure 3: Archsite site distribution in the vicinity of the study area.

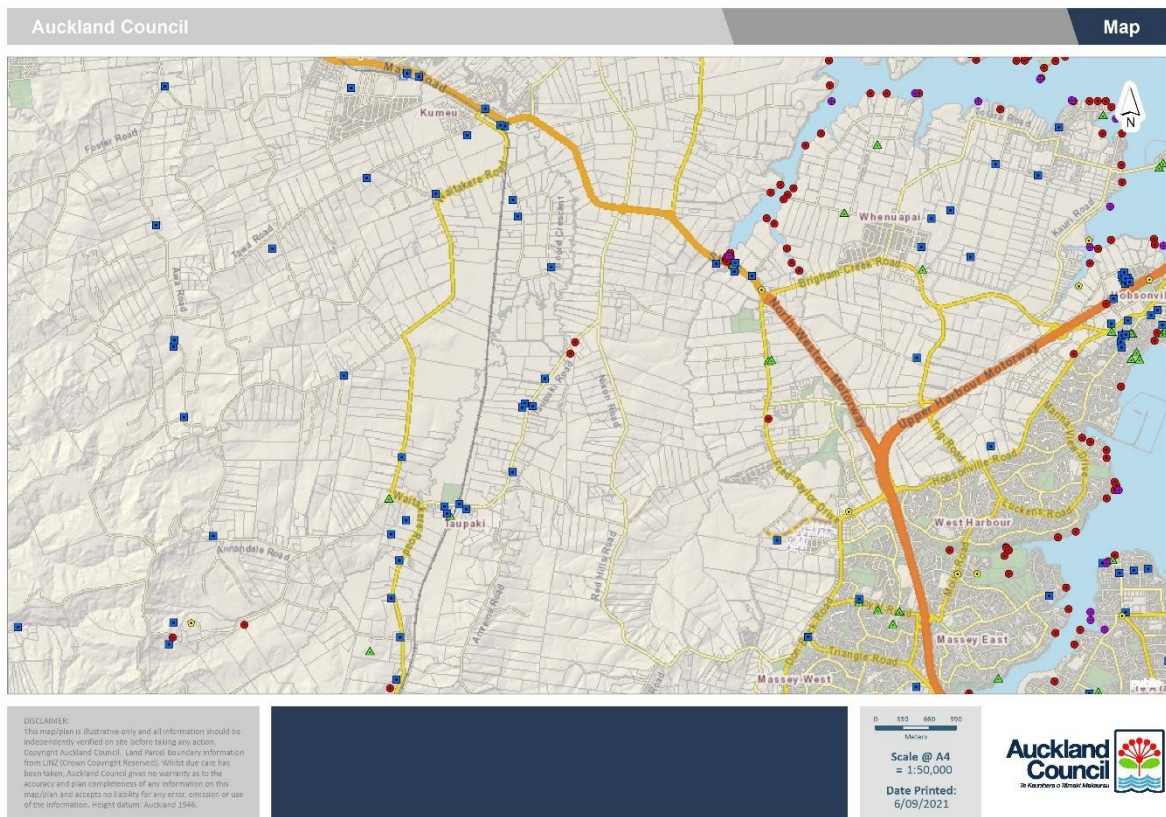


Figure 4: CHI sites in the vicinity of the study area.

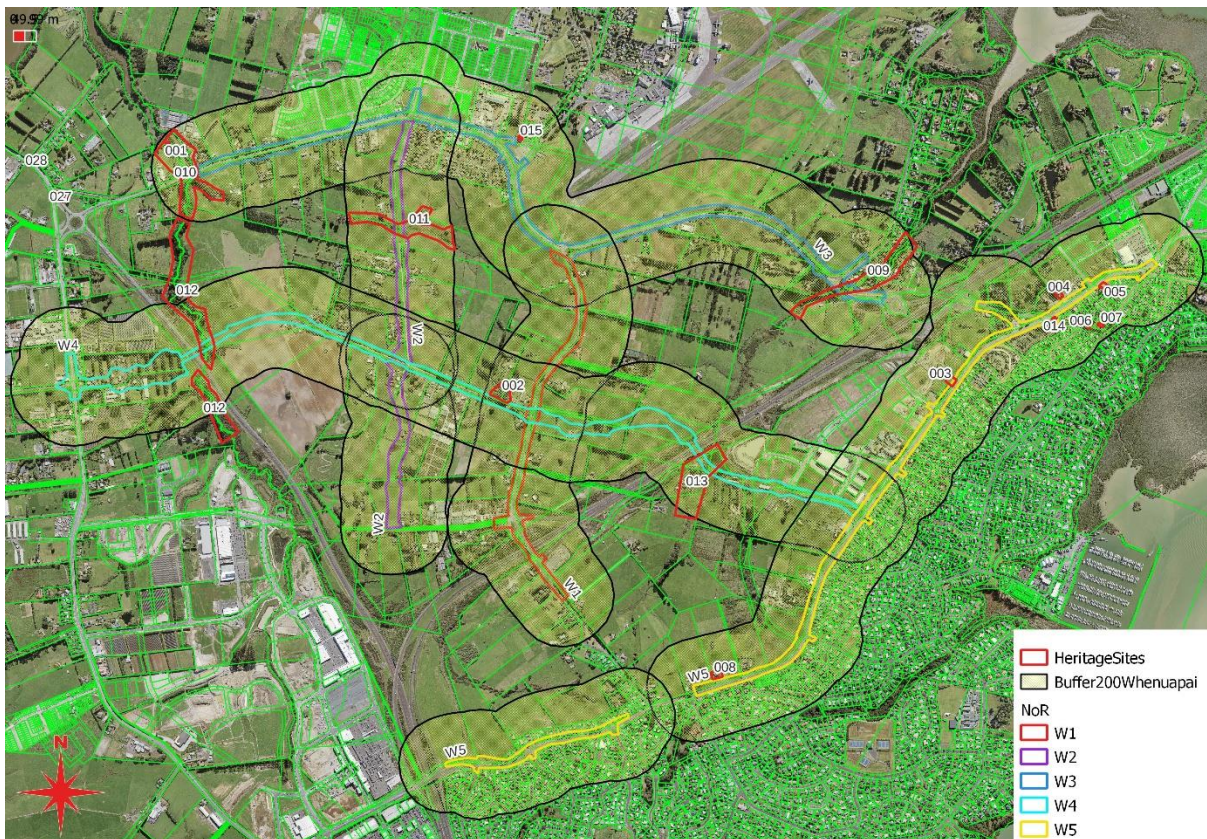


Figure 5: NoRs corridors (W1 - W5 in various colours) with 200m bufferzones (hatched areas surrounding NoR corridors), all heritage sites (numbered 001 - 008) and high risk areas (numbered 009 - 013) within these buffer zones.

Details of the sites and the risk areas are discussed within each NoR (Section 8 to 11 below).

4.5 Previous Archaeological Investigations

A number of assessments and monitoring exercises have taken place in the area between Hobsonville and Kumeū (see bibliography (Macready 2019)). Only a handful of these projects added anything significant to our knowledge of the area (Foster and Felgate 2011; Hawkins and Campbell 2020; Shackles 2019).

Investigations of site damages to a few shell midden along the northern coastline along Hobsonville showed a long occupation history using continuous kai moana exploitation (Shackles 2019).

Another investigation focused on the homestead and its development of one of the early settlers in the area, the Ocklestons (Foster and Felgate 2011). It paints a vivid picture of the changes and continuations of the rural life on the edge of Auckland, which is today replaced by suburbia. The 1940 aerial shows the study area dominated by orchards and grazing (Figure 6).

A similar case study was undertaken during moving a heritage house from its original position (Hawkins and Campbell 2020).



Figure 6: Rural character of the study area in 1940. Work on the airfield at Whenuapai has just started.

5 Whenuapai Assessment Package Overview

An overview of the Whenuapai Assessment Package is provided in Figure 5-1 below, with a brief summary of the Whenuapai Assessment Package projects provided in Table 5-1 below.

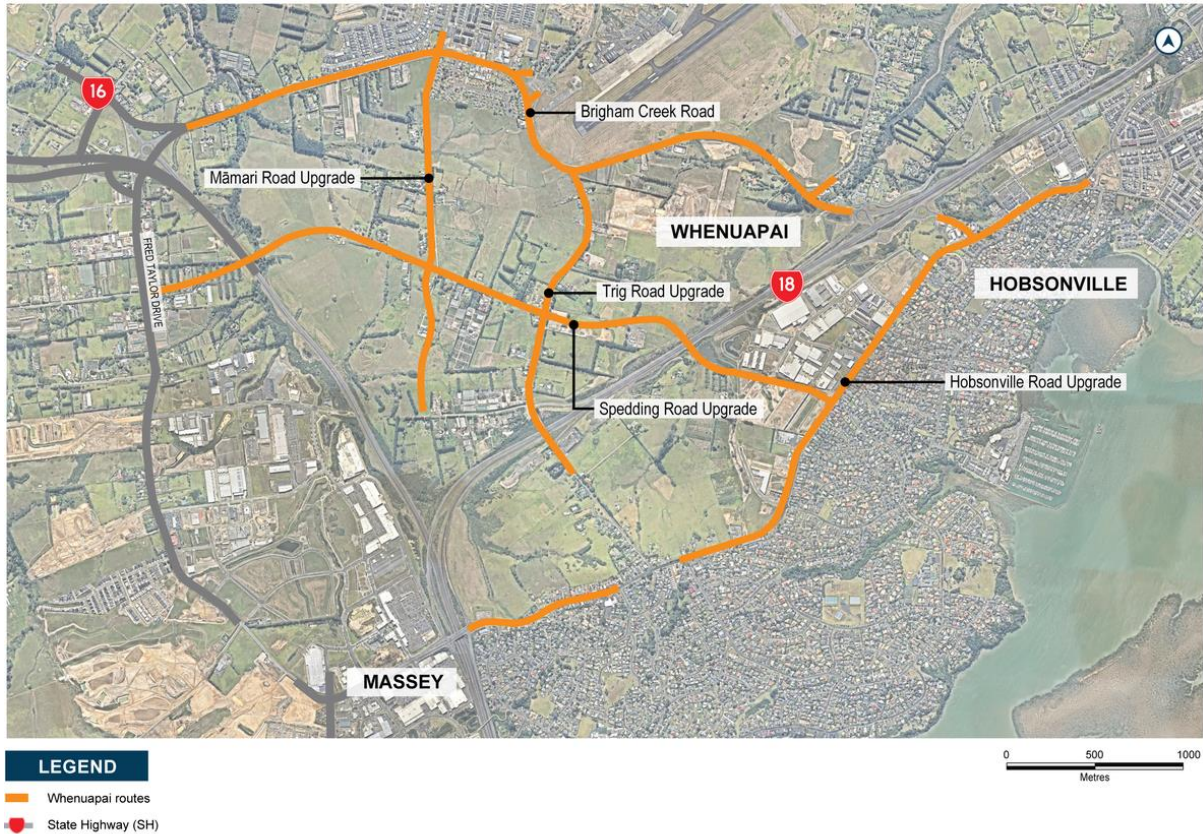


Figure 5-1: North West Whenuapai Assessment Package – Overview of NoRs for Assessment

Table 5-1: Whenuapai Assessment Package Project Summary

Corridor	NOR	Description	Requiring Authority
Trig Road North	NoR W1	Upgrade of Trig Road corridor to a 24m wide two-lane urban arterial cross-section with separated active mode facilities on both sides of the corridor.	Auckland Transport
Māmari Road	NoR W2	Extension and upgrade of Māmari Road corridor to a 30m wide four-lane urban arterial cross-section providing bus priority lanes and separated active mode facilities on both sides of the corridor.	Auckland Transport
Brigham Creek Road	NoR W3	Upgrade of Brigham Creek Road corridor to a 30m wide four-lane arterial cross-section with separated active mode facilities on both sides of the corridor.	Auckland Transport
Spedding Road	NoR W4	Upgrade of the existing Spedding Road corridor and new east and west extensions to form a 24m wide two-lane arterial with separated active mode facilities on both sides of the corridor.	Auckland Transport

Corridor	NOR	Description	Requiring Authority
Hobsonville Road (alteration to existing designation 1437)	NoR W5	<p>Alteration of the existing Hobsonville Road designation 1437 to provide for the widening of the Hobsonville Road corridor between Oriel Avenue and Memorial Park Lane.</p> <p>Upgrade of sections of Hobsonville Road corridor to a 30m wide four-lane cross section with separated active mode facilities on both sides of the corridor</p> <p>Upgrade of sections of Hobsonville Road corridor to a 24m wide two-lane cross section with separated active mode facilities on both sides of the corridor.</p>	Auckland Transport

Please refer to the AEE for further information on these projects, including a project description, key project features and the planning context.

6 Whenuapai Positive Effects

The nature of historic heritage, especially archaeological features, recorded and unrecorded, is that all disturbances including construction has a negative effect that cannot be remediated only mitigated.

Nonetheless construction around wetlands and streams will allow environmental archaeological research to be undertaken that could clarify the dates, sequence and details of the anthropogenic vegetation change from forest to open fern lands.

Any pre-Contact horticulture like frequent harvesting of fern root rhizomes or taro fields has not been observed in the study area. Large linear developments like the proposed transport corridors are a rare opportunity to close this gap in our knowledge.

7 Whenuapai Construction Effects

The following construction effects apply to each of the NoRs within the Whenuapai Assessment Package:

- Any topsoil removal for ancillary developments like laydown areas, haul roads and the like has the potential to uncover archaeological features, both pre-Contact and post Contact. Therefore, there is no difference in the risk and effects assessment between the proposed transport corridors and the construction areas, such as laydown areas.

Potential effects to heritage and archaeological sites are considered within a 200 m buffer zone of the construction areas and the assessment of each NoR is based on the results of this consideration. Mitigation is therefore set out in Section 8 to 12 for each NoR.

Any processes regarding tikanga, especially around koiwi, should be discussed with mana whenua before the start of the project. This is a recommended measure for each NoR.

8 NoR W1: Trig Road North Upgrade

8.1 Project Corridor Features

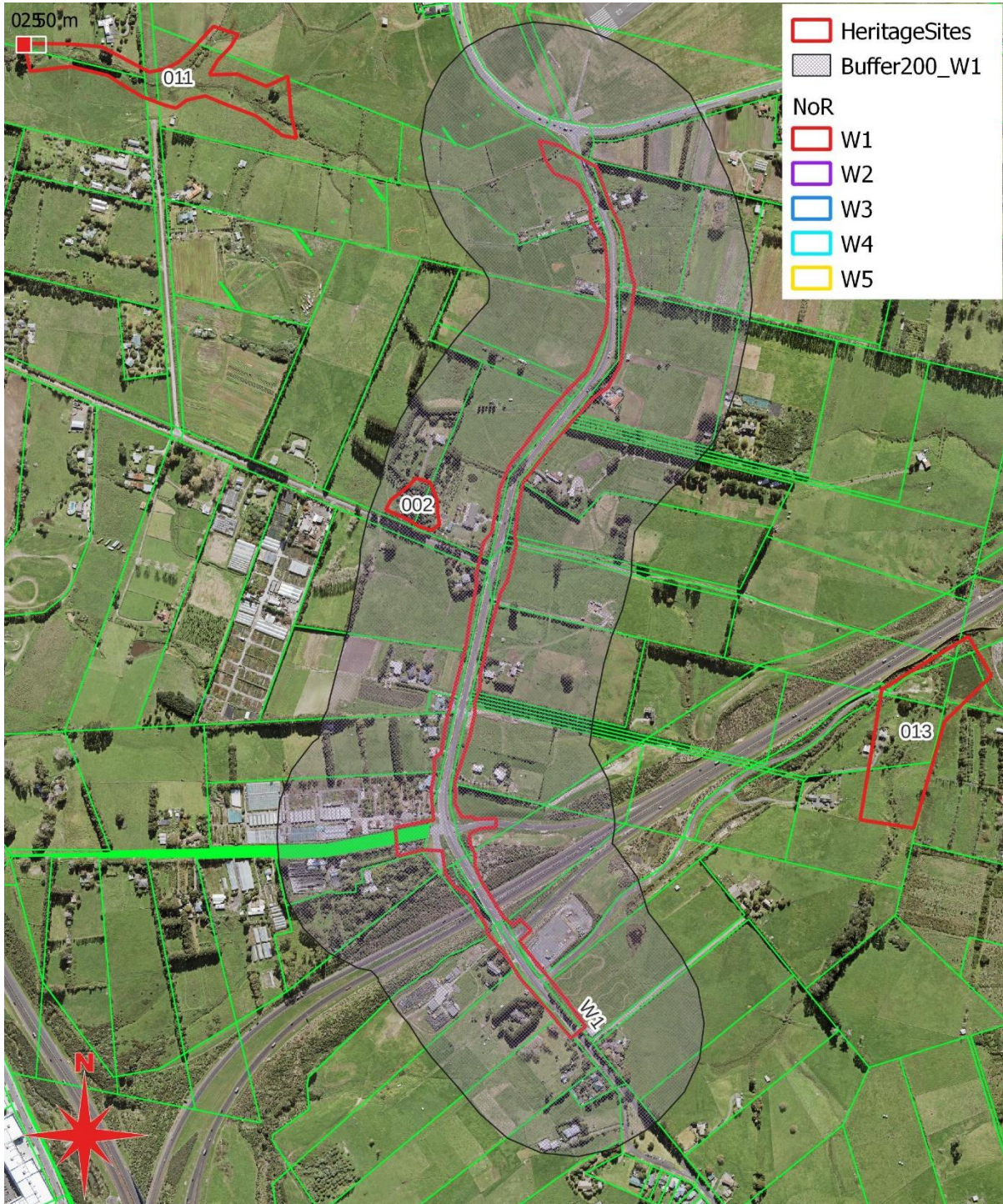


Figure 8: NoR W1 in relation to any heritage sites.

The feature 002 is a WW2 gun emplacement protecting Whenuapai airfield. It is recorded in the CHI as number 20469 and a heritage overlay is proposed through PPC5 to the AUP:OP. Further information about this site is discussed in relation to NoR W4 below. This is because this feature is outside the construction corridor for NoR W1 and will not be impacted by NoR W1.

8.2 Existing and Likely Future Environment

8.2.1 Planning context

The Trig Road corridor runs through an existing rural environment, with the land either side of the Trig Road corridor currently zoned Future Urban Zone (**FUZ**) under the AUP:OP. PPC5 proposes to rezone the eastern side of Trig Road north of SH18 and the western side of Trig Road between Brigham Creek Road and Spedding Road as Business – Light Industry Zone. A heritage overlay is proposed at 92 Trig Road and 4 Spedding Road.

PPC5 does not extend to the west side of the corridor south of Spedding Road, however the Whenuapai Structure Plan identifies this area for business zoning. The Whenuapai Structure Plan identifies a potential Sports Park at the corner of Trig Road and Spedding Road.

The NZDF Air Base (Special Purpose - Airports and Airfields Zone) is located to the north of Trig Road on Brigham Creek Road. The airbase is designated (Designation 4310) for defence purposes by the Minister of Defence. Table 8-1 below provides a summary of the Trig Road North existing and likely future environment

Table 8-1 below provides a summary of the North West existing and likely future environment

Table 8-1: Trig Road Upgrade Existing and Likely Future Environment

Environment today	Zoning	Likelihood of Change for the environment ²	Likely Future Environment ³
Undeveloped greenfield areas	Future Urban Zone	High	Urban
New Zealand Defence Force Air Base	Special Purpose - Airports and Airfields Zone	Low	Urban

8.2.2 Heritage Environment

There are no recorded archaeological or historic heritage sites within the footprint of NoR W1.

As NoR W1 does not cross any major streams or creeks there is only a small risk of unrecorded archaeological sites being encountered. None of the historic maps show any historic heritage features within the footprint of NoR W1.

8.3 Assessment of Effects on historic heritage and archaeological sites and Measures to Avoid, Remedy or Mitigate Actual or Potential Adverse Effects

8.3.1 Positive Effects

Potential positive effects are detailed in section 5.

² Based on AUP:OP zoning/policy direction

³ Based on AUP:OP zoning/policy direction

8.3.2 Assessment of Construction Effects

Based upon the heritage environment for NoR W1 there are no adverse effects on historic heritage from NoR W1.

The small risk of encountering unrecorded archaeological features can be mitigated by obtaining a precautionary archaeological authority from HNZPT under the HNZPTA and complying with the conditions of the authority.

8.3.3 Recommended Measures to Avoid, Remedy or Mitigate Construction Effects

Any potential previously unrecorded archaeological deposits that are exposed during the works can be mitigated under the provisions of a precautionary HNZPTA authority, and the means of mitigation detailed in an Archaeological Management Plan prepared for the HNZPTA authority application.

It is recommended that all areas of earthworks or topsoil stripping during construction are included in the precautionary archaeological authority.

8.3.4 Assessment of Operational Effects

There are no other adverse effects on historic heritage during operation of NoR W1.

8.3.5 Recommended Measures to Avoid, Remedy or Mitigate Operational Effects

There are no recommended measures to avoid operational effects as there are no adverse effects to be mitigated.

8.4 Conclusions

There are no known archaeological sites within NoR W1 however there remains a small risk that unrecorded archaeological features may be encountered.

The associated effects of encountering unrecorded archaeological features can be mitigated through the conditions by requiring a precautionary HNZPTA archaeological authority to be obtained.

With the recommended mitigation in place, there are no residual adverse effects on historic heritage.

9 NoR W2: Māmari Road Upgrade

9.1 Project Corridor Features

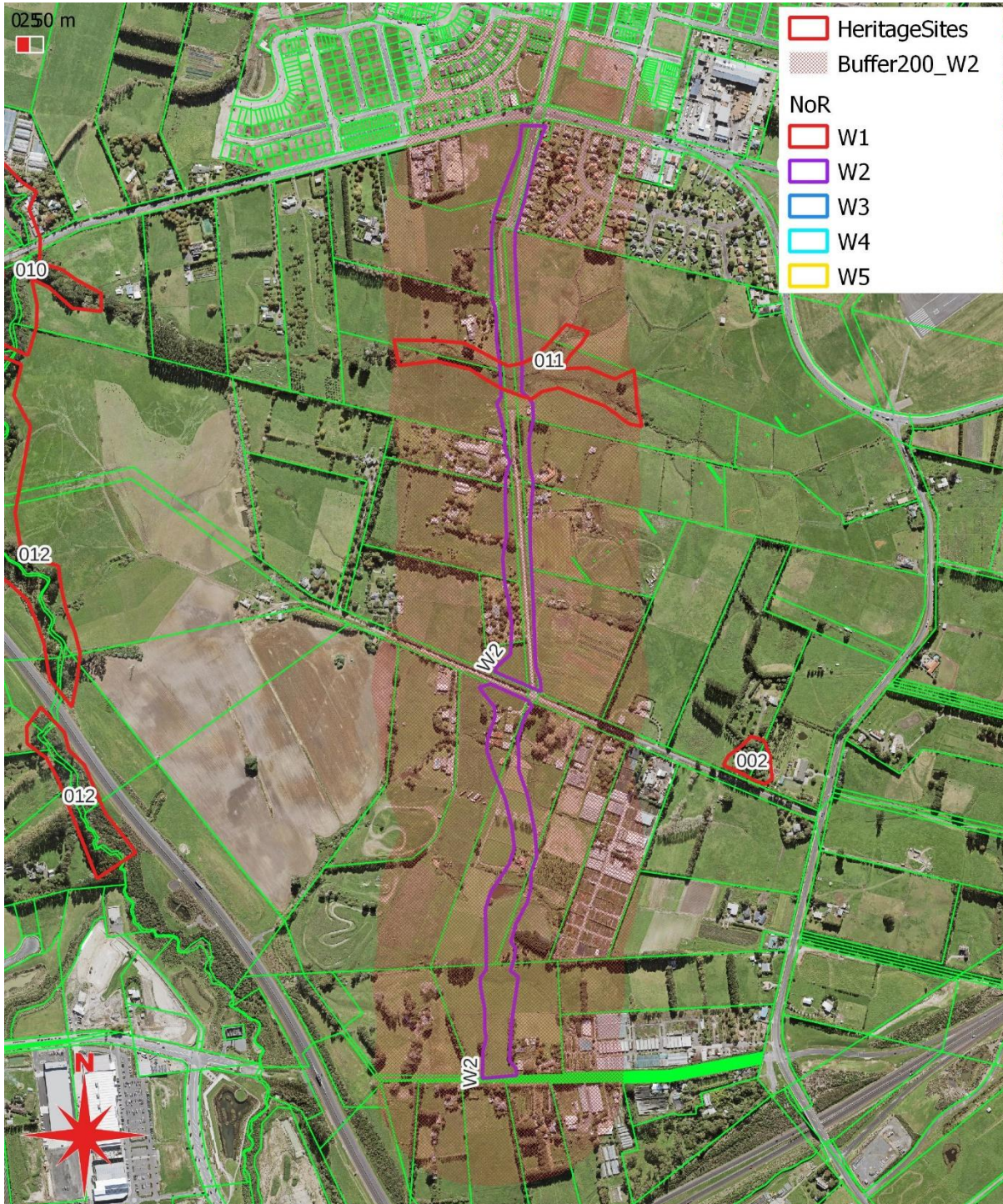


Figure 9: NoR W2 alignment in relation to any risk areas with potential for unrecorded archaeological features.

There are no heritage sites or archaeological sites recorded within the extent of NoR W2. However, unrecorded archaeological features could potentially be encountered at the crossing of the Sinton Stream which leads into the Totara Creek (marked as 011 in the graphics).

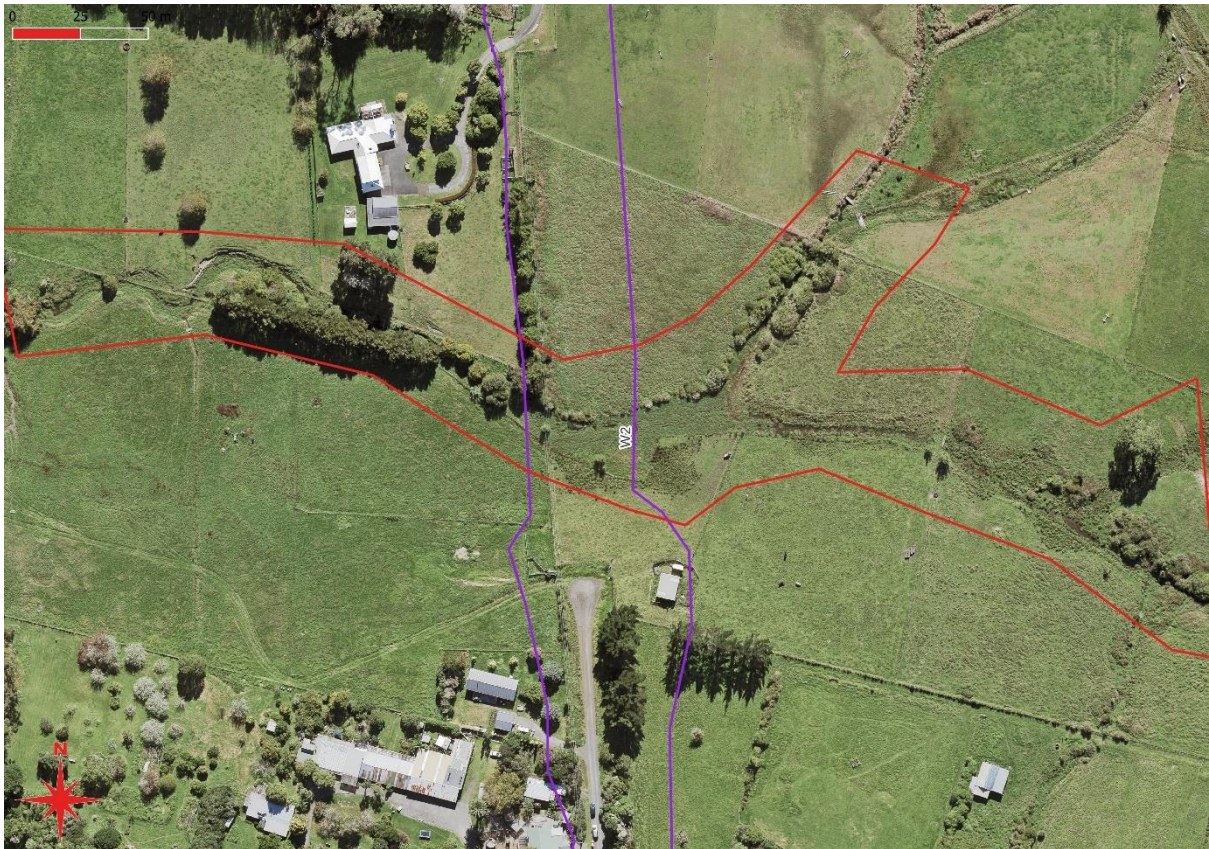


Figure 10: Sinton stream crossing within the 200m buffer (011).



Figure 11: Sinton stream crossing in 1940. No major earthworks have taken place between 1940 and today.



Figure 12: View over stream crossing from a distance. Crossing is on private land.



Figure 13: View over stream crossing from a distance.



Figure 14: View over Sinton stream and grazing land adjacent to it.

9.2 Existing and Likely Future Environment

9.2.1 Planning context

The Trig Road corridor runs through an existing rural environment, with the land either side of the corridor currently zoned FUZ under the AUP:OP. PPC5 proposes to rezone the eastern side of Trig Road north of SH18 and the western side of Trig Road between Brigham Creek Road and Spedding Road as Business – Light Industry Zone. A heritage overlay is proposed at 92 Trig Road and 4 Spedding Road.

PPC5 does not extend to the west side of the corridor south of Spedding Road, however the Whenuapai Structure Plan identifies this area for business zoning. The Whenuapai Structure Plan identifies a potential Sports Park at the corner of Trig Road and Spedding Road.

The NZDF Air Base (Special Purpose - Airports and Airfields Zone) is located to the north of Trig Road on Brigham Creek Road. The airbase is designated (Designation 4310) for defence purposes by the Minister of Defence.

Table 9-1 below provides a summary of the North West existing and likely future environment.

Table 9-1: Māmari Road Existing and Likely Future Environment

Environment today	Zoning	Likelihood of Change for the environment ⁴	Likely Future Environment ⁵
Residential	Residential	Low	Residential
Undeveloped greenfield areas	Future Urban	High	Urban
Timatanga Community School	Special Purpose - School Zone	Low	Urban

9.2.2 Heritage Environment

There are no recorded archaeological or historic heritage sites within the footprint of NoR W2.

NoR W2 crosses the Sinton stream which seems to be unchanged since the 1940s. However there is a risk that unrecorded archaeological sites could be encountered.

None of the historic maps show any historic heritage features within the footprint of NoR W2.

9.3 Assessment of Effects and Measures to Avoid, Remedy or Mitigate Actual or Potential Adverse Effects

9.3.1 Positive Effects

Potential positive effects are detailed in Section 6.

9.3.2 Assessment of Construction Effects

There are potential adverse effects in relation to unrecorded archaeological features being encountered close to the Sinton Stream crossing. Any archaeological features are likely to be from seasonal camps which were used to exploit local resources. They would not have been rare but are rarely recorded and their information potential is high considering that few inland pre-Contact sites have been recorded or documented. As any sites would be sub surface, they have no amenity value and their cultural association would be related to the known relationship of iwi and hapū to the area. No additional assessment criteria are applicable.

Based upon the heritage environment for NoR W2 there are no adverse effects on historic heritage from NoR W2. The risk of encountering unrecorded archaeological features can be mitigated by obtaining a precautionary archaeological authority from HNZPT under the HNZPTA and complying with the conditions of the authority.

⁴ Based on AUP:OP zoning/policy direction

⁵ Based on AUP:OP zoning/policy direction

9.3.3 Recommended Measures to Avoid, Remedy or Mitigate Construction Effects

Any potential previously unrecorded archaeological deposits that are exposed during the works can be mitigated under the provisions of a precautionary HNZPTA authority, and the means of mitigation detailed in an Archaeological Management Plan prepared for the HNZPTA authority application.

It is recommended that all areas of earthworks or topsoil stripping during construction are included in the precautionary archaeological authority.

9.3.4 Assessment of Operational Effects

There are no other adverse effects on historic heritage during operation of NoR W2.

9.3.5 Recommended Measures to Avoid, Remedy or Mitigate Operational Effects

There are no recommended measures to avoid operational effects as there are no adverse effects to be mitigated.

9.4 Conclusions

There are no known archaeological sites within NoR W2 however there remains a reasonable risk that unrecorded archaeological features could be encountered. The associated effects can be mitigated through the conditions requiring a precautionary HNZPTA archaeological authority to be obtained.

With the recommended mitigation in place, there are no residual adverse effects on historic heritage.

10 NoR W3: Brigham Creek Road Upgrade

10.1 Project Corridor Features



Figure 15: NoR W3 corridor in relation to the 200 m buffer and heritage features: shell midden 001, notable tree 015, high risk area 010 (Totara Creek crossing) and 009 (Waiarohia Stream crossing).

Within the 200m buffer of NoR W3, one archaeological site 001 is recorded at the edge of the Totara Creek (R11/2084, CHI#13579) and a notable group of trees 015 is noted at 10–12 Airport Road, Whenuapai (AUP:OP #1813, CHI#2318). None of these features are impacted by NoR W3.

Two high risk areas are indicated within the 200 m buffer: the Waiarohia Stream crossing (009) and the Totara Creek crossing (010). Both stream crossings seem to have little earthworks done since 1940 and if there are any subsurface archaeological features in the vicinity there is a high risk that they are still in situ. Both are major streams with a deep channel and would have been most likely used in pre-Contact times for waka travel.

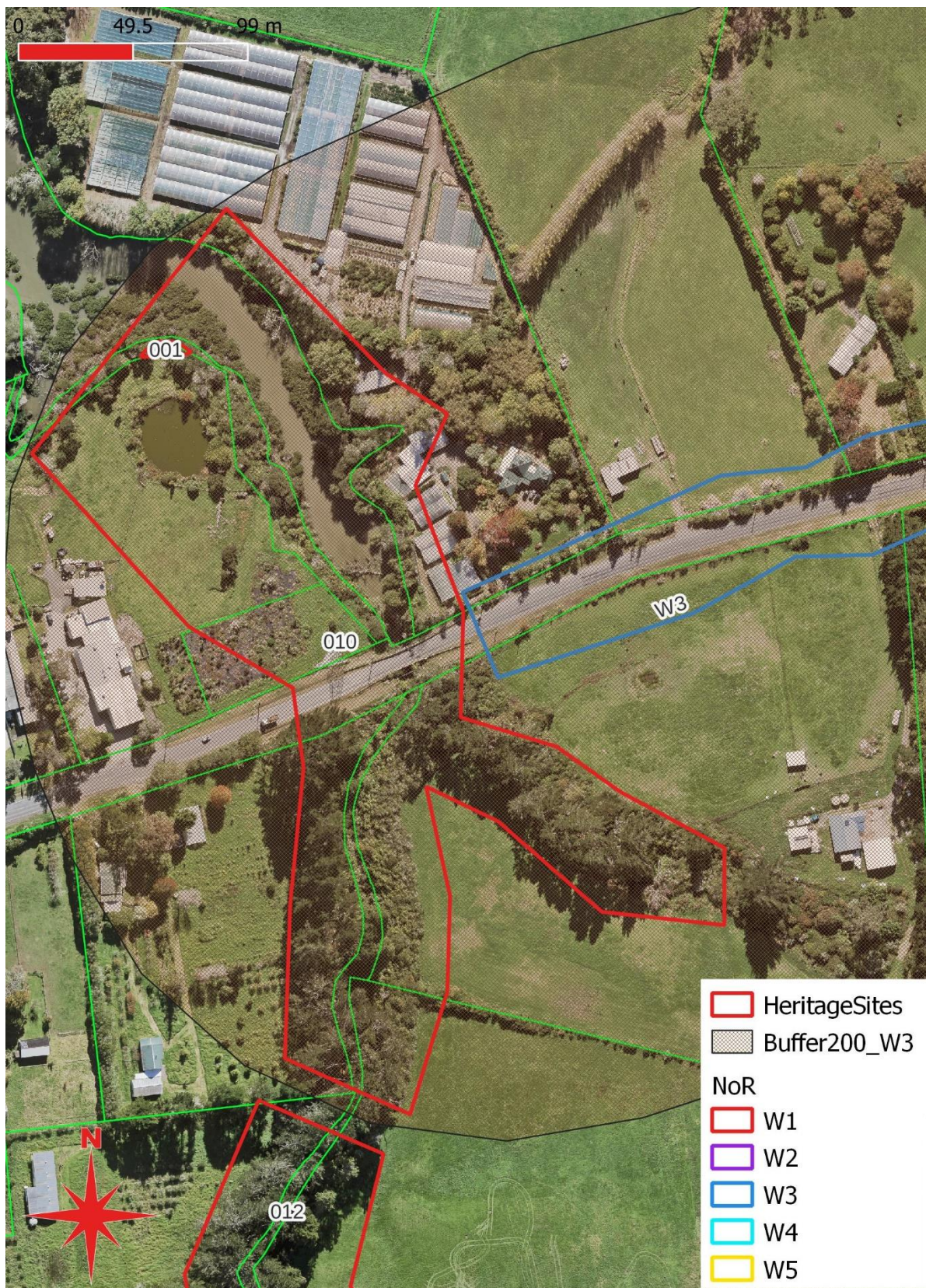


Figure 16: Shell midden site 001 and Totara Creek crossing (010) in relation to the end of NoR W3.



Figure 17: Shell midden site and Totara Creek crossing in 1940.



Figure 18: Totara Creek crossing, view upstream.

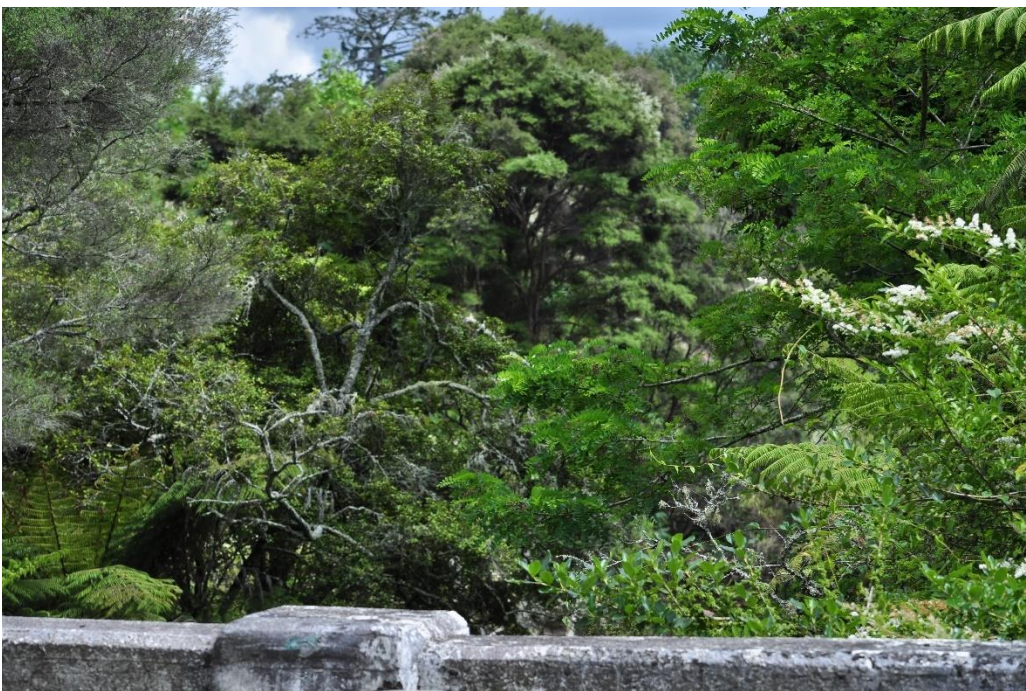


Figure 19: Totara Creek crossing, view downstream.



Figure 20: Narrow bridge over the Totara Creek.



Figure 21: Totara and Kauri at Airport Road - group of notable trees (AUP:OP).



Figure 22: Location of notable trees in relation to extent of W3.

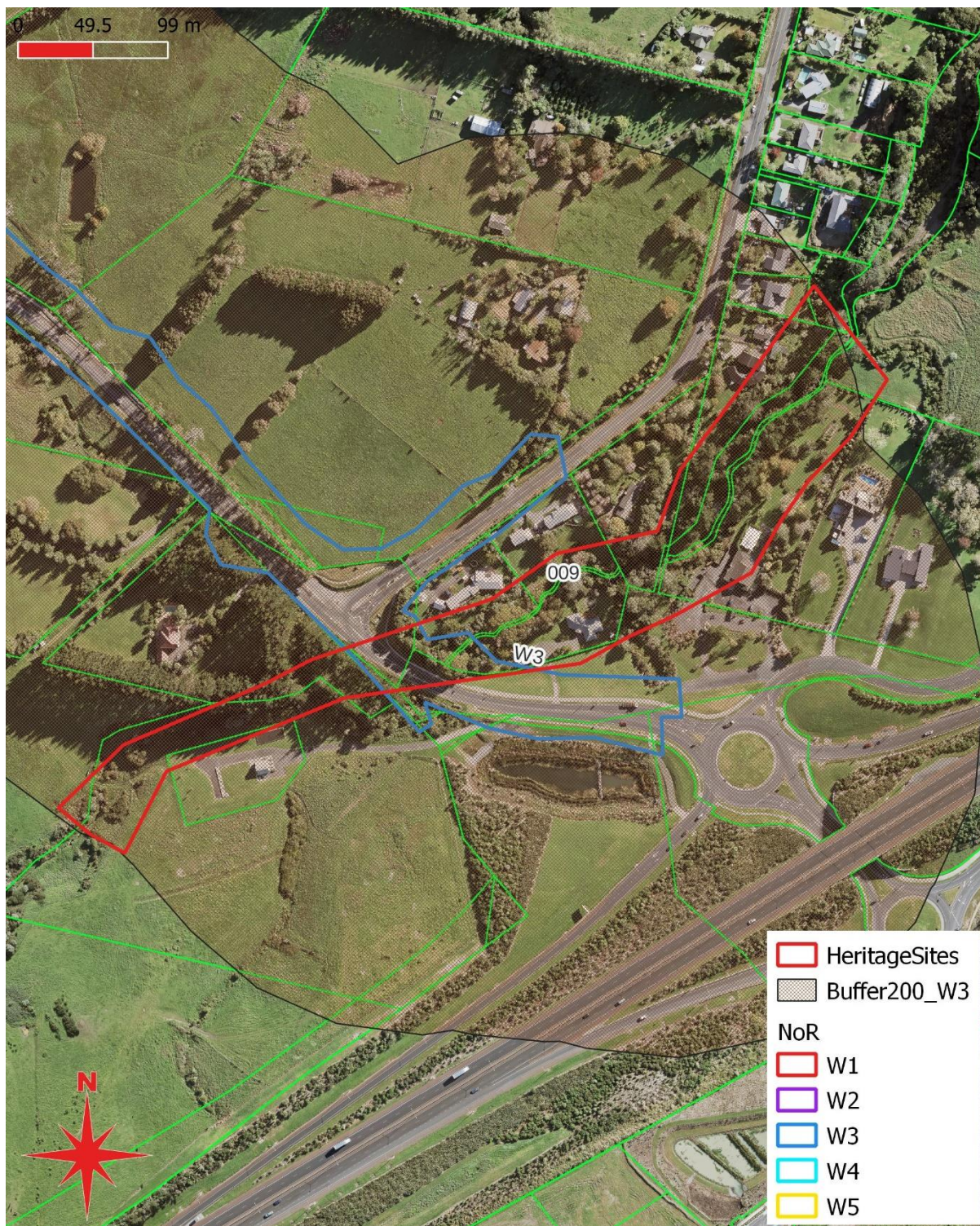


Figure 23: 200 m buffer at the Waiarohia Stream crossing.



Figure 24: The Waiarohia stream crossing in 1940 showing little earthworks have been done since 1940.



Figure 25: View over stream crossing looking downstream.



Figure 26: View over bridge and stream crossing looking upstream.



Figure 27: Deep channel of the Waiarohia stream with a blue stone footing - possibly for an old crossing.

10.2 Existing and Likely Future Environment

10.2.1 Planning context

The land adjacent to Brigham Creek Road is zoned under the AUP:OP as FUZ, except within the existing Whenuapai Centre (which is zoned under the AUP:OP for a range of residential and business zones) and the Whenuapai NZDF airbase. The airbase is designated (Designation 4310) for defence purposes by the Minister of Defence. The designation also includes the Residential – Single House Zone within the Whenuapai Centre.

PPC5 proposes to rezone the eastern portion of Brigham Creek Road on the south of the corridor to Business – Light Industrial zoning. The Whenuapai Structure Plan identifies medium density residential and business land uses to the south of Brigham Creek Road, with medium density residential land uses identified to the north.

Table 10-1 below provides a summary of the Brigham Creek Road existing and likely future environment.

Table 10-1: Brigham Creek Road Upgrade Existing and Likely Future Environment

Environment today	Zoning	Likelihood of Change for the environment ⁶	Likely Future Environment ⁷
Business	Business (Light Industrial)	Low	Business (Light Industrial)
	Business (Local centre)	Low	Business (Local centre)
Residential	Residential	Low	Residential
Open Space	Open Space –Informal Recreation Zone	Low	Open Space
Undeveloped greenfield areas (Future Urban Zone)	Future Urban	High	Urban
New Zealand Defence Force Air Base	Special Purpose - Airports and Airfields Zone	Low	Special Purpose – Airports and Airfields Zone

10.2.2 Heritage Environment

No archaeological sites or historic heritage sites are recorded within the boundaries of NoR W3. A shell midden site is close by and indicates that the stream crossings (Totara Creek and Waiarohia Stream) are high risk areas for the discovery of sub surface and unrecorded archaeological features.

A group of 4 native trees along Airport Road are on the AUP:OP list of notable trees. They are outside the boundary of the proposed development.

10.3 Assessment of Effects on Historic Heritage and Archaeology and Measures to Avoid, Remedy or Mitigate Actual or Potential Adverse Effects

10.3.1 Positive Effects

Potential positive effects are detailed in Section 6.

10.3.2 Assessment of Construction Effects

There are potential adverse effects as a result of unrecorded archaeological features being encountered close to the Waiarohia Stream and Totara Creek crossings. Any archaeological features are likely to be from seasonal camps which were used to exploit local resources like the shell midden close to NoR W3 along the Totara Creek. They would not have been rare but are rarely investigated comprehensively and their information potential is high considering that no inland pre-Contact sites have been recorded or documented. As any sites would be sub surface they have no amenity value and their cultural association would be the known relationship of iwi and hapū to the area. No additional assessment criteria are applicable.

⁶ Based on AUP:OP zoning/policy direction

⁷ Based on AUP:OP zoning/policy direction

The reasonable high risk of encountering unrecorded archaeological features can be mitigated by obtaining a precautionary archaeological authority applied for with HNZPT under the HNZPTA and complying with the conditions of the authority.

10.3.3 Recommended Measures to Avoid, Remedy or Mitigate Construction Effects

Any potential previously unrecorded archaeological deposits that are exposed during the works can be mitigated under the provisions of a precautionary HNZPTA authority, and the means of mitigation detailed in an Archaeological Management Plan prepared for the HNZPTA authority application.

It is recommended that all areas of earthworks or topsoil stripping during construction are included in the precautionary archaeological authority.

10.3.4 Assessment of Operational Effects

There are no other adverse effects on historic heritage during operation of NoR W3.

10.3.5 Recommended Measures to Avoid, Remedy or Mitigate Operational Effects

There are no recommended measures to avoid operational effects as there are no adverse effects to be mitigated.

10.4 Conclusions

There are no known heritage or archaeological sites within the proposed corridor of NoR W3 however there remains a reasonably high risk of encountering unrecorded archaeological features. The associated effects can be mitigated through the conditions requiring a precautionary HNZPTA archaeological authority to be obtained.

With the recommended mitigation in place, there are no residual adverse effects on historic heritage.

11 NoR W4: Spedding Road

11.1 Project Corridor Features



Figure 28: NoR W4 corridor in relation to the 200 m buffer. A heritage site (CHI#20469), a WW2 gun emplacement (002), has been recorded and two risk areas at stream crossings have been identified (012 and 013).

A gun emplacement of WW2 has been identified right next to the road corridor (002 on the graphics and CHI#20469). It is not an archaeological site under the definition of the HNZPTA and it is not yet scheduled in the AUP:OP, although, a heritage overlay is proposed as part of PPC5. The extent of the proposed heritage overlay on 92 Trig Road and 4 Spedding Road is slightly different to the extent of the battery (see Figure 29 to 31). The crew building is not incorporated in the overlay, but the overlay extends further north than the battery structures (Macready 2017). There is a risk that some ancillary works of this multi structure heritage site extends into the proposed construction corridor.

The stream crossing at Totara Creek is within possibly undisturbed paddocks and there is a high risk that unrecorded archaeological sub surface features could be encountered (012).

Crossings at the Waiarohuia and the Rāwiri stream are low risk areas for encountering previously unrecorded sites as they both have already been modified recently at the point where NoR W4 crosses them (013).



Figure 29: The gun emplacement under vegetation cover.



Figure 30: The gun emplacement including ancillary buildings in 1950 (not yet built in the 1940 aerial).

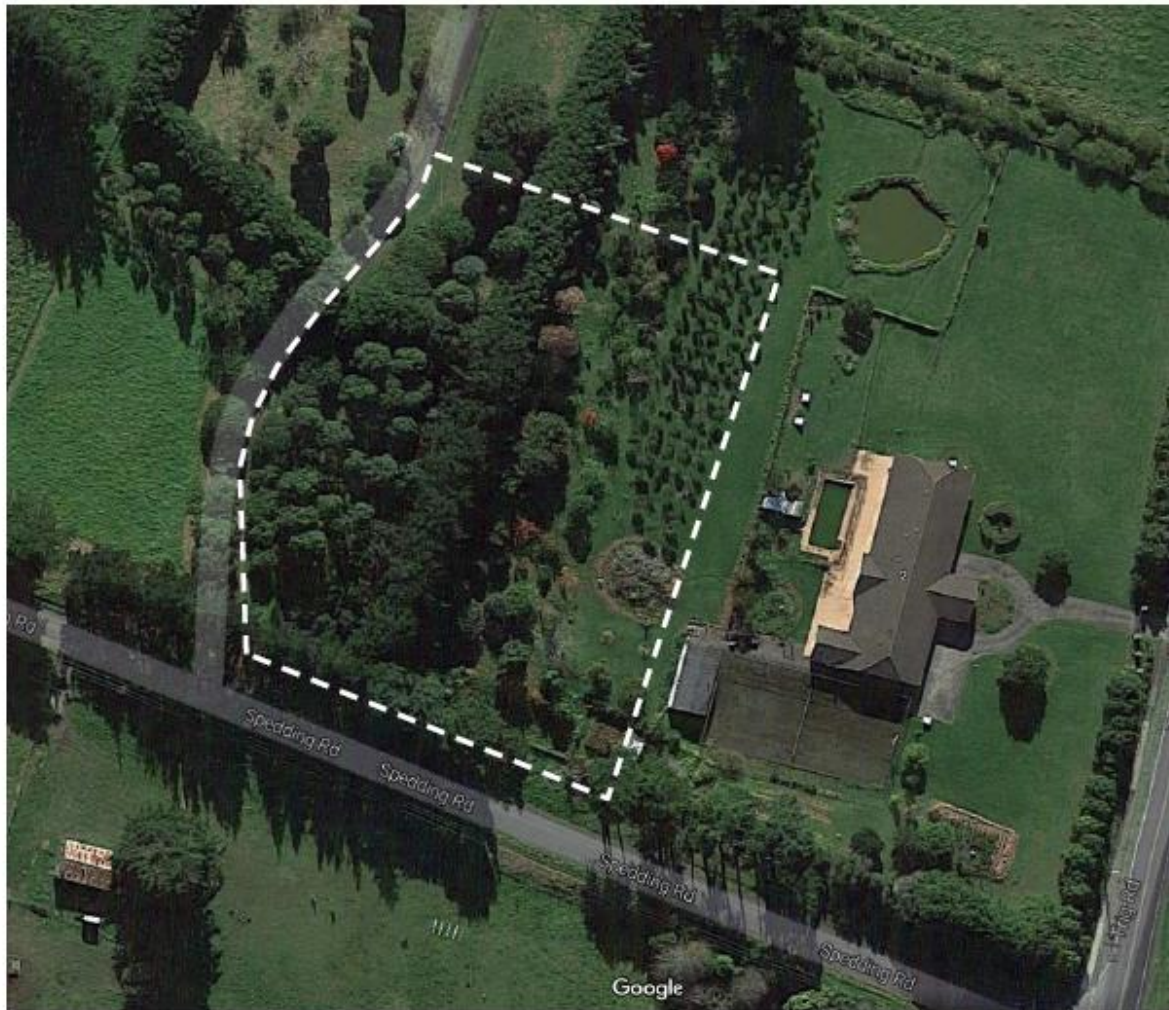


Figure 2. Extent of Whenuapai Heavy AA Battery recommended for scheduling

Figure 31: Proposed heritage overlay after Macready 2017:Figure2. Note the discrepancies between this extent and the extent based on the 1950 aerial (Figure 29 and 30). The likely crew buildings are outside this proposed extent and the proposed extent reaches further north than the battery buildings.



Figure 32: The gun emplacement in 1959 with some of the buildings already demolished but all gun pits still clearly visible.



Figure 33: Gun pits view from the road.



Figure 34: Gun pits view from the road.



Figure 35: Road reserve next to the gun pits.



Figure 36: Embankment which is possibly part of the gun emplacement.

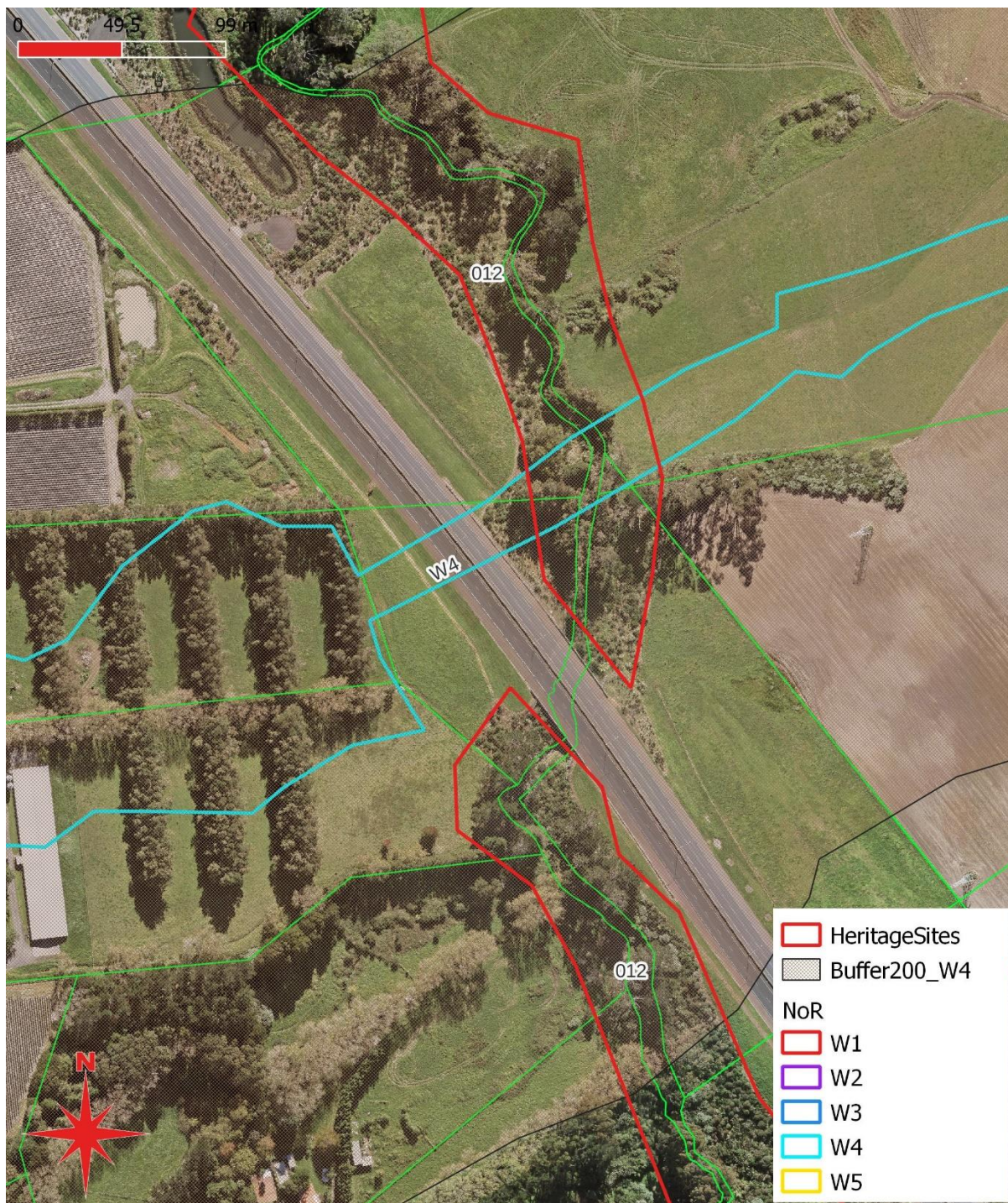


Figure 37: Crossing of Totara Creek within the 200 m buffer (012).

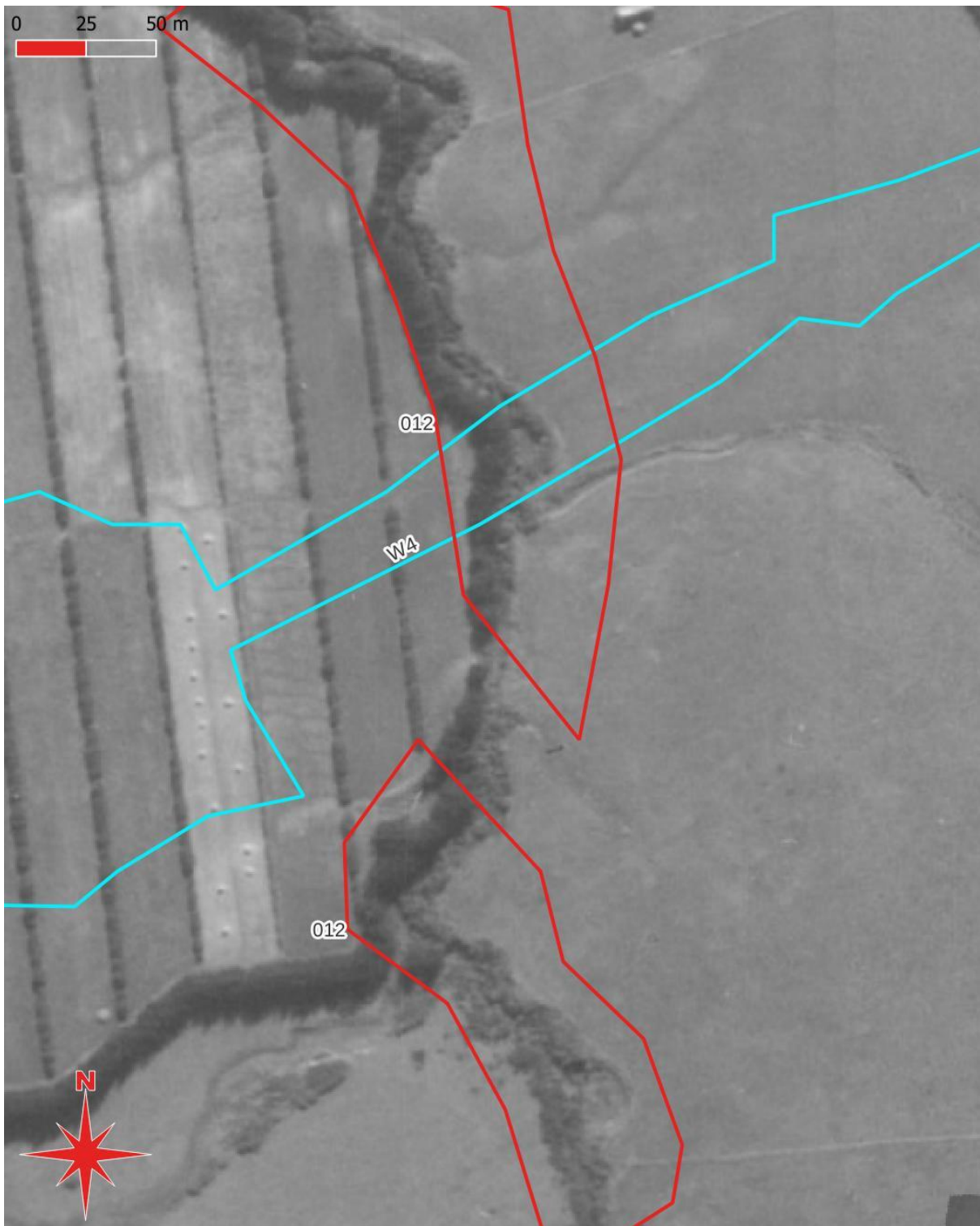


Figure 38: Totara Creek in 1940.



Figure 39: Modern modification close to the crossing of Waiarohia Stream.

11.2 Existing and Likely Future Environment

11.2.1 Planning context

The land on either side of Spedding Road is zoned under the AUP:OP as FUZ, with the exception being the Business – Light Industry Zone within the Hobsonville Corridor Precinct.

On the eastern end of the corridor PPC5 proposes to rezone the surrounding FUZ land to Business – Light Industry Zone in the north and Residential - Mixed Housing Urban Zone and Open Space – Informal Recreation zone in the south. The remainder of the land to the south falls within the Hobsonville Corridor Precinct.

The Whenuapai Structure Plan identifies the land surrounding the existing central section and proposed western end of the corridor for business.

The western section of the proposed corridor extends across SH16 and the eastern section across SH18, both SH16 and SH18 are designated by Waka Kotahi for State Highway purposes (Designation 6741).

Table 11-1 below provides a summary of the North West existing and likely future environment.

Table 11-1: Spedding Road Existing and Likely Future Environment

Environment today	Zoning	Likelihood of Change for the environment ⁸	Likely Future Environment ⁹
Business	Business (Light Industrial)	Low	Business (Light Industrial)
Residential	Residential	Low	Residential
Undeveloped greenfield areas (Future Urban Zone)	Future Urban	High	Urban

11.2.2 Heritage Environment

There are no historic heritage sites or archaeological sites recorded within the footprint of NoR W4.

A WW2 heavy anti-aircraft gun emplacement consisting of several gun pits and ancillary buildings of various functions is recorded in the CHI and is adjacent to the proposed corridor of NoR W4. There is a risk that some subsurface features could be found within NoR W4. A heritage overlay is proposed as part of PPC5 and is very close to the proposed corridor of NoR W4 (Macready 2017).

The stream crossing of the Totara Creek is a high risk area for sub surface archaeological features to be uncovered.

The stream crossings of the Waiarohia and Rāwiri streams have low potential for sub surface archaeological features to be uncovered as both have been recently modified.

11.3 Assessment of Effects on Historic Heritage and Archaeological sites and Measures to Avoid, Remedy or Mitigate Actual or Potential Adverse Effects

11.3.1 Positive Effects

Potential positive effects are detailed in section 5.

11.3.2 Assessment of Construction Effects

Potential adverse effects include that unrecorded archaeological features may be encountered close to the Waiarohia Stream, Rāwiri Stream and Totara Creek crossings. Any archaeological features are likely to be from seasonal camps used to exploit local resources. They would not have been rare but are rarely investigated comprehensively and their information potential is high considering that no inland pre-Contact sites have been recorded or documented. As any sites would be sub surface they have no amenity value and their cultural association would be the known relationship of iwi and hapū to the area. No additional assessment criteria are applicable.

⁸ Based on AUP:OP zoning/policy direction

⁹ Based on AUP:OP zoning/policy direction

A precautionary archaeological authority would mitigate the risk of encountering unrecorded archaeological features.

There is also a low risk that subsurface ancillary structures belonging to the WW2 heavy anti-aircraft gun emplacements may be encountered. As they are not archaeological sites but can be considered to have heritage value under the AUP:OP criteria of historical, technological and contextual values, discussions with the Auckland Council Heritage Unit are encouraged. The outlined site extent (Figure 29) should be considered as having high historic heritage value.

In conclusion there are no significant adverse effects on historic heritage by the proposed NoR corridor of W4. The reasonably high risk of encountering unrecorded archaeological features can be mitigated by obtaining a precautionary archaeological authority applied for with HNZPT under the HNZPTA and complying with the conditions of the authority.

11.3.3 Recommended Measures to Avoid, Remedy or Mitigate Construction Effects

Any potential previously unrecorded archaeological deposits that are exposed during the works can be mitigated under the provisions of a precautionary HNZPTA authority, and the means of mitigation detailed in an Archaeological Management Plan prepared for the HNZPTA authority application.

It is recommended that all areas of earthworks or topsoil stripping during construction are included in the precautionary archaeological authority.

11.3.4 Assessment of Operational Effects

There are no other adverse effects on historic heritage during operation of NoR W4.

11.3.5 Recommended Measures to Avoid, Remedy or Mitigate Operational Effects

There are no recommended measures to avoid operational effects as there are no adverse effects to be mitigated.

11.4 Conclusions

There are no known heritage or archaeological sites within the proposed corridor of NoR W4 however there remains a reasonably high risk of encountering unrecorded archaeological features. The associated effects can be mitigated through the conditions requiring a precautionary HNZPTA archaeological authority to be obtained.

With the recommended mitigation in place, there are no residual adverse effects on historic heritage of NoR W4.

12 NoR W5: Hobsonville Road FTN Upgrade

12.1 Project Corridor Features



Figure 40: NoR W5 in relation to the 200 m buffer and recorded historic heritage structures and notable trees.



Figure 41: The buildings at 005 (Hobsonville Hall) and 007 (residential property) in 1940. Two notable trees (006 and 014) are shown too. The heritage building at 004 has recently been investigated and moved to a different location.

Within the 200 m buffer of NoR W5 several historic heritage structures and notable trees are recorded.

The Hobsonville Hall (005 in the graphics) is recorded in the CHI (3496) but has not been scheduled in the AUP:OP and is not considered an archaeological site as it was built after 1900. It is outside the footprint of the proposed development, but ancillary sub surface features related to the hall might be uncovered.

A residential property at 1 Williams Road (007) is recorded in the CHI (3385) and scheduled as 00071 in the Historic Heritage list of the AUP:OP. It is outside the footprint of the proposed corridor. The same is correct for a notable tree with a bronze plaque next to it (CHI# 2299 and 3629, Notable trees of the AUP:OP #1811). This is a gum tree which is described in a plaque at the base of the tree to have been possibly planted by Governor Hobson in the middle of the 19th century. Hobsonville was considered for a short period as a contender for the European capital in New Zealand.

A building across the road (004) is recorded on the CHI (3702) and as archaeological site R11/2965. As part of developing the New World supermarket this building was moved to a new location and the footprint investigated (Hawkins and Campbell 2020). The proposed development will have no impact on this site.

A notable tree is recorded in the road reserve on the corner of Hobsonville Road and Williams Road (AUP:OP notable trees #1812 and CHI #2281, "014" on Figure 40, 41 and 50). NoR W5 will not impact this tree as the design of NoR W5 has been amended so as to avoid the removal of the tree.

A midden and possible gum digger camp have been recorded on the basis of local European oral traditions at area “003” on the maps (CHI# 12363, R11/2026). Current earthworks in this area (carried out under an archaeological authority) have not yet discovered any archaeological features (S. Phear, HNZPT, Auckland, pers. comm.). However we consider there is still a possibility that this site may be present on the RSA property next door and the widening of the road as part of NoR W5 could impact on it.

A large house built or moved to the site after 1940 (008 in the graphics) further along Hobsonville Road is recorded as heritage item 3699 in the CHI. The footprint of the building is outside the development area of NoR W5.

There is little risk of encountering archaeological features during widening of the road. The small risk that unidentified archaeological features could be encountered could be mitigated by applying for an archaeological authority for pre and post Contact archaeological features from HNZPT under the HNZPTA.



Figure 42: Hobsonville Hall (005) viewed from the road.



Figure 43: Hobsonville Hall in relation to the road.



Figure 44: Carpark of the Hobsonville Hall.



Figure 45: View over Hobsonville Hall from the carpark.



Figure 46: Location of destroyed archaeological site R11/2965 (moved building 004).



Figure 47: Historic house at 1 Williams Road (AUP:OP 00071) "007".

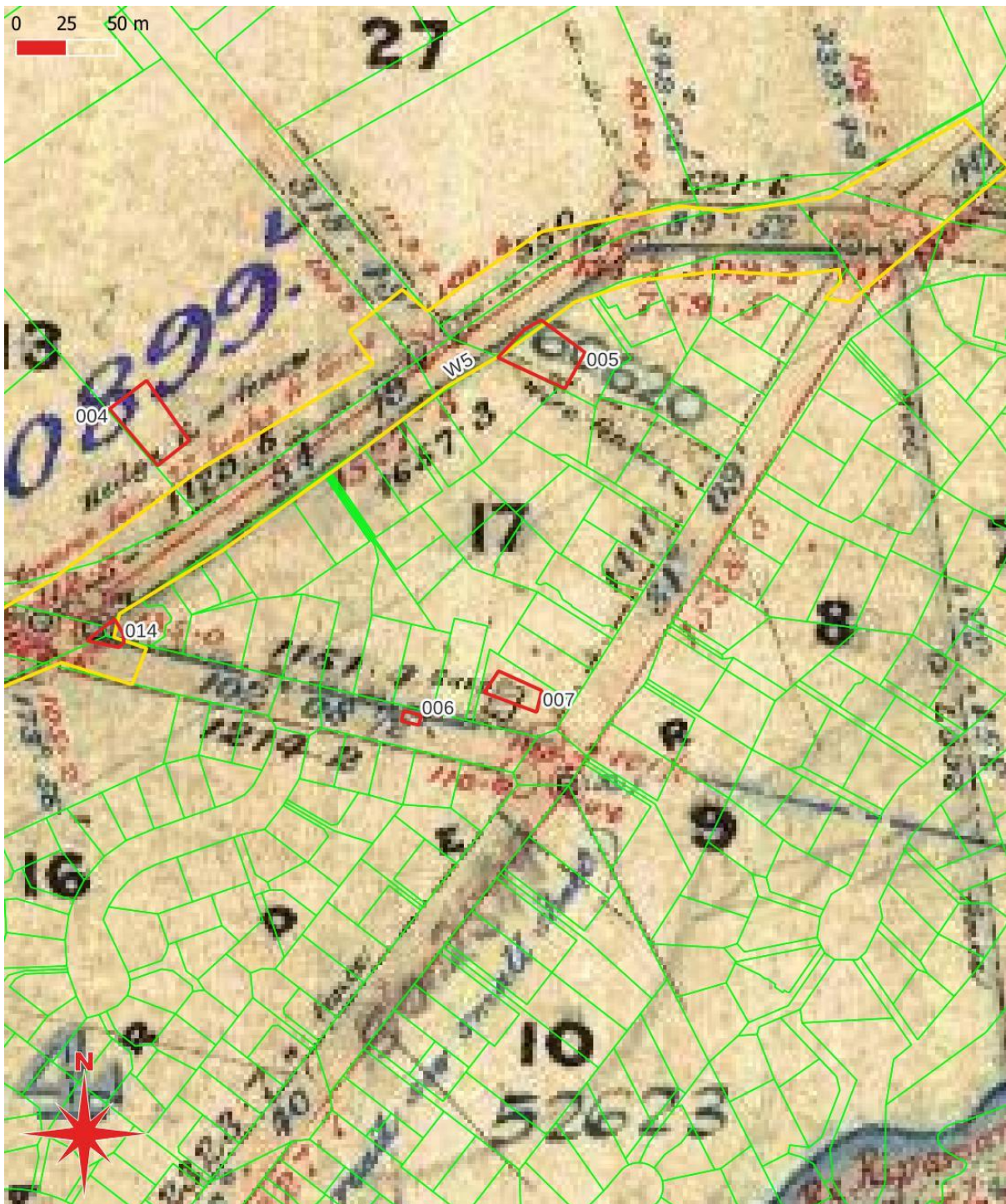


Figure 48: Historic map from 1881 (SO2598) showing location of historic house '007"



Figure 49: Notable gum tree at '006'.



Figure 50: Bronze plaque below gum tree.

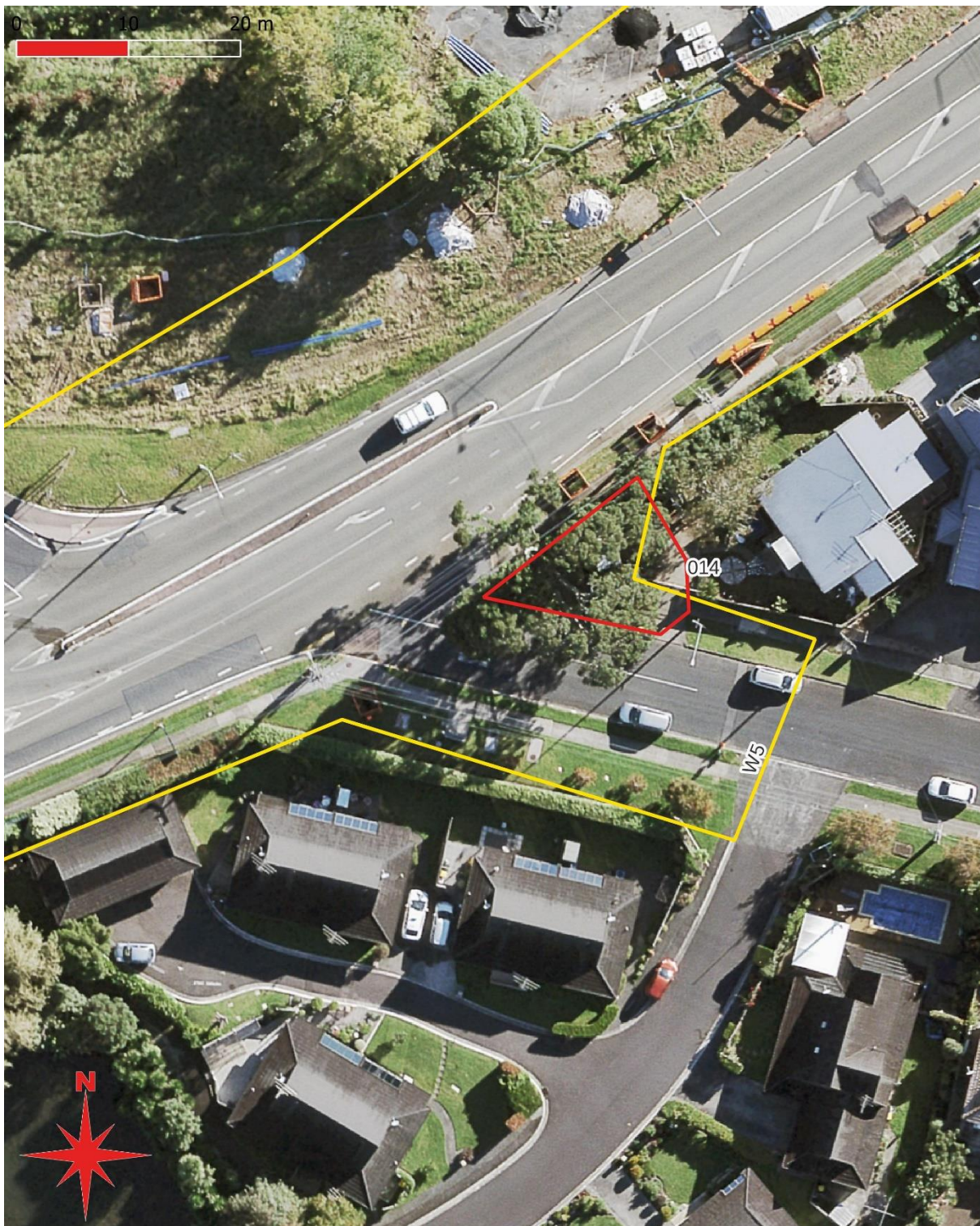


Figure 51: Notable tree (014) within the road reserve at the road corner Hobsonville Road and Williams Road.



Figure 52: Recent earthworks on recorded 'gum digger camp' (003).



Figure 53: Historic house post 1940 ('008') in relation to the proposed development.



Figure 54: House at '008'.



Figure 55: Current road reserve at '008'.

12.2 Existing and Likely Future Environment

12.2.1 Planning context

Hobsonville Road is an existing urban corridor with land zoned under the AUP:OP as follows:

- The southern side of Hobsonville Road is largely zoned Residential – Mixed Housing Urban Zone, with a Business – Local Centre Zone located adjacent to the intersection of Hobsonville Road, Wiseley Road and Clark Road at the eastern end of the corridor; and
- The northern side of Hobsonville Road contains a variety of land uses. Adjacent land on the western end of the corridor is currently zoned Residential – Mixed Housing Zone between SH16 and Trig Road (proposed for up zoning as part of PPC5), with FUZ land behind. Land to the east of Trig Road to Westpark Drive is currently zoned FUZ, with land then zoned Business – Light Industrial Zone to the east of Westpark Drive.

PPC5 proposes to re-zone the existing FUZ area to Residential – Mixed Housing Zone and Residential – Terrace and Apartment Building Zone.

The Hobsonville Road corridor is currently designated by AT for Transport Purposes (Designation 1437). Designation 1437 has been given effect to and it is proposed to alter this designation.

Table 12-1 below provides a summary of the North West existing and likely future environment.

Table 12-1: Hobsonville Road FTN Upgrade Existing and Likely Future Environment

Environment today	Zoning	Likely Future Environment ¹⁰	Likelihood of Change for the environment ¹¹
Business	Business (Light Industrial)	Business (Light Industrial)	Low
	Business (Local centre)	Business (Local centre)	Low
Residential	Residential	Residential	Low
Undeveloped greenfield areas (Future Urban Zone)	Future Urban	Urban	High

12.2.2 Heritage Environment

No historic heritage or archaeological sites are recorded within NoR W5.

A notable tree is within NoR W5 but the design of NoR W5 has been amended to avoid removal of this tree.

There is a small risk that features from the reported gum digger site could be encountered during earthworks.

¹⁰ Based on AUP:OP zoning/policy direction

¹¹ Based on AUP:OP zoning/policy direction

12.3 Assessment of Effects on Historic Heritage and Archaeological Sites and Measures to Avoid, Remedy or Mitigate Actual or Potential Adverse Effects

12.3.1 Positive Effects

Potential positive effects are detailed in Section 6.

12.3.2 Assessment of Construction Effects

The notable tree on the corner of Hobsonville and Williams Road is within the extent of NoR W5. It is scheduled within the AUP:OP. However the design of NoR W5 has been amended to avoid removal of this tree.

There could be a potential adverse effect on the reported gum digger site during earthworks.

If remains were encountered, they are not rare, but are rarely recorded due to their ephemeral nature. There is only limited information potential from it and as they would be sub surface they don't have any amenity value. No specific link to a social group is likely to be established from the remains only and no other criteria are applicable.

In conclusion there are no significant adverse effects on historic heritage resulting from NoR W5.

12.3.3 Recommended Measures to Avoid, Remedy or Mitigate Construction Effects

The small risk of encountering unrecorded archaeological features can be mitigated by obtaining a precautionary archaeological authority from HNZPT under the HNZPTA and complying with the conditions of the authority.

It is recommended that all areas of earthworks or topsoil stripping during construction are included in the precautionary archaeological authority.

12.3.4 Assessment of Operational Effects

There are no other adverse effects on historic heritage during operation of NoR W5.

12.3.5 Recommended Measures to Avoid, Remedy or Mitigate Operational Effects

There are no recommended measures to avoid operational effects as there are no adverse effects to be mitigated.

12.4 Conclusions

There are no known heritage or archaeological sites within the proposed corridor of NoR W5 however there remains a small risk of unrecorded archaeological features being encountered. The associated effects can be mitigated through the conditions requiring a precautionary HNZPTA archaeological authority to be obtained.

A notable tree is within the proposed corridor of NoR W5. However the design of NoR W5 has been amended so that removal of the notable tree is avoided.

Therefore, with the recommended mitigation in place, there are no residual negative effects on historic heritage due to NoR W5.

13 Conclusion

The nature of historic heritage, especially archaeological features, recorded and unrecorded, is that all disturbances including construction has a negative effect that cannot be remediated only mitigated.

Nonetheless construction around wetlands and streams will allow environmental archaeological research to be undertaken. The positive effect of investigating the various silt layers is that it could clarify the dates, sequence and details of the anthropogenic vegetation change from forest to open fern lands. This can be done independent or in conjunction with investigation archaeological features.

Any pre-Contact horticulture such as frequent harvesting of fern root rhizomes or taro fields have not been observed in the study area to date. Large linear developments like the ones proposed here are a perfect opportunity to close this gap in our knowledge independent from finding archaeological features.

NoR W1 Trig Road North There are no adverse effects on historic heritage by NoR W1.

There is a small risk of potential adverse effects due to unrecorded archaeological sites being encountered.

However overall, there is no significant adverse effect on historic heritage by NoR W1 as the associated effects of encountering unrecorded archaeological features can be mitigated through the conditions requiring a precautionary HNZPTA archaeological authority to be obtained.

NoR W2 Māmari Road

Potential adverse effects would result if unrecorded archaeological features are discovered close to the Sinton Stream crossing. Any archaeological features if discovered are likely to be from seasonal camps used as bases to exploit local resources. They would not have been rare but are rarely recorded and their information potential is high considering that no inland pre-Contact sites have been recorded or documented. As any sites would be sub surface they have no amenity value and their cultural association would be the known relationship of iwi and hapū to the area. No additional assessment criteria are applicable.

A precautionary archaeological authority would manage the risk of encountering unrecorded archaeological features.

Overall there is no significant adverse effect on historic heritage by the NoR of W2 because the small risk of encountering unrecorded archaeological features can be mitigated through the conditions requiring a precautionary HNZPTA archaeological authority to be obtained.

NoR W3 Brigham Creek Road

Potential adverse effects would result if unrecorded archaeological features are discovered close to the Waiarohia Stream and Totara Creek crossings. Both streams might have been navigable by waka beyond the proposed NoR W3 crossing. Any archaeological features are likely to be from seasonal camps used to exploit local resources like the shell midden close to NoR W3 along the Totara Creek. They would not have been rare but are rarely investigated comprehensively and their information potential is high considering that no inland pre-Contact sites have been recorded or documented. As any sites would be sub surface they have no amenity value and their cultural association would be the known relationship of iwi and hapū to the area. No additional assessment criteria are applicable.

A precautionary archaeological authority would mitigate the risk of encountering unrecorded archaeological features.

Overall there is no significant adverse effect on historic heritage by the NoR of W3, because the reasonably high risk of encountering unrecorded archaeological features can be mitigated through the conditions requiring a precautionary HNZPTA archaeological authority to be obtained.

NoR W4 Spedding Road

Potential adverse effects would result if unrecorded archaeological features are discovered close to the Waiarohia Stream, Rāwiri Stream and Totara Creek crossings. Any archaeological features are likely to be from seasonal camps used to exploit local resources. They would not have been rare but are rarely investigated comprehensively and their information potential is high considering that no inland pre-Contact sites have been recorded or documented. As any sites would be sub surface they have no amenity value and their cultural association would be the known relationship of iwi and hapū to the area. No additional assessment criteria are applicable.

A precautionary archaeological authority would mitigate the risk of encountering unrecorded archaeological features.

There is also a low risk that subsurface ancillary structures belonging to the WW2 heavy anti-aircraft gun emplacements could be encountered. As they are not archaeological sites but can be considered having heritage value under the AUP:OP criteria of historical, technological and contextual values, discussions with the Auckland Council Heritage Unit are encouraged. It is noted that a heritage overlay is also proposed under PPC5 for this site.

Overall there are no significant adverse effects on historic heritage due to NoR W4, as while there remains a reasonably high risk of encountering unrecorded archaeological features, at least at the Totara Creek crossing, the associated effects can be mitigated through the conditions requiring a precautionary HNZPTA archaeological authority to be obtained.

NoR W5 Hobsonville Road

The notable tree on the corner of Hobsonville and Williams Road is within the extent of the development. It is scheduled with the AUP:OP. However, the design for NoR W5 has been amended to ensure the notable tree is avoided.

There are potentially adverse effects on the reported gum digger site should this site be encountered during earthworks.

If features of a gum digger site are encountered, they are not rare within west Auckland or the North Island, but are rarely recorded due to their ephemeral nature. There is only limited information potential from it and as they would be sub surface they don't have any amenity value. No specific link to a social group is likely to be established from the remains only and no other criteria under the HNZPTA or AUP:OP are applicable.

Overall there are no significant adverse effects on historic heritage from NoR W5 as the small risk of encountering unrecorded archaeological features can be managed by a precautionary archaeological authority being applied for from HNZPT under the HNZPTA.

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