

Rangitooopuni: archaeological assessment

**report to
Te Kawerau ā Maki
and
Avant**



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Prepared by:



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Reviewed by:



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1 Introduction

Te Kawerau ā Maki are applying for a Fast-track to develop a retirement village and countryside living subdivision at Riverhead Forest (Lot 1 and Lot 2 DP 590677) under the Fast-track Approvals Act 2024. There is one archaeological site recorded in the New Zealand Archaeological Association (NZAA) Site Recording Scheme (SRS) within 200 m of the proposed works, the Riverhead Mill and water race. A desktop assessment is required to identify any heritage constraints on the proposed works, and in support of the Fast-track application. Shane Kelly of Avant, on behalf of Te Kawerau ā Maki, commissioned this desktop assessment from CFG Heritage Ltd.

1.1 Statutory requirements

All archaeological sites, whether recorded or not, are protected by the provisions of the Heritage New Zealand Pouhere Taonga Act 2014 and may not be destroyed, damaged or modified without an authority issued by Heritage New Zealand Pouhere Taonga (HNZPT).

An archaeological site is defined in the Heritage New Zealand Pouhere Taonga Act as:

- (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).

The Resource Management Act 1991 (RMA) requires City, District and Regional Councils to manage the use, development, and protection of natural and physical resources in a way that provides for the wellbeing of today's communities while safeguarding the options of future generations. The protection of historic heritage from inappropriate subdivision, use, and development is identified as a matter of national importance (Section 6f).

Historic heritage is defined 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:

- historic sites, structures, places, and areas
- archaeological sites;
- sites of significance to Maori, including wahi tapu;
- surroundings associated with the natural and physical resources (RMA Section 2).

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 Maori.

Where resource consent is required for any activity the assessment of effects is required to address cultural and historic heritage matters.

1.2 Scope and limitations

This evaluation is a desktop study only and is not intended as a full archaeological assessment. This report is a brief evaluation and where there is a likelihood of archaeological evidence being disturbed and further archaeological assessment may be required. The assessment and evaluation for all archaeological sites is based on the current information and supporting documentation in ArchSite, the online database of the New Zealand Archaeological Association (NZAA) Site Recording Scheme (SRS)

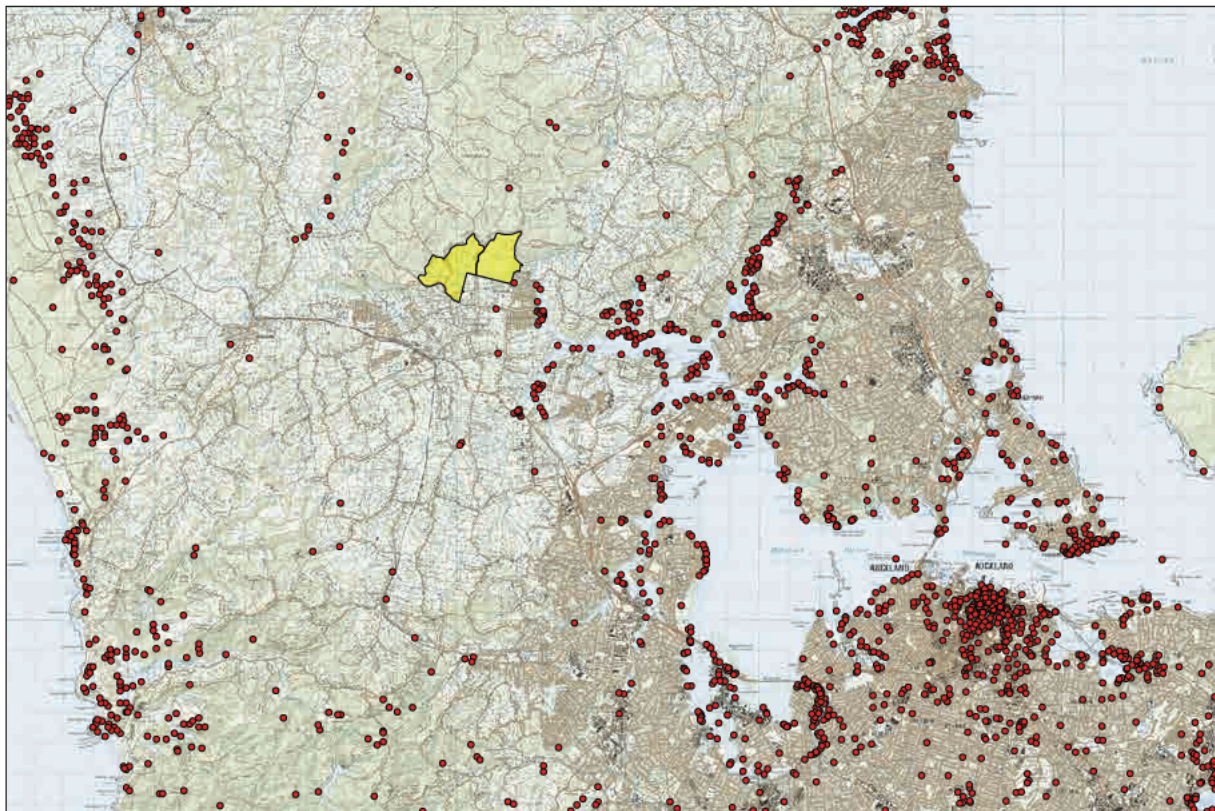


Figure 1. Location proposed works and recorded archaeological sites in the area.

This data must be treated as though it were correct and up to date. Archaeological sites have been recorded since the 1950s and the quality of site information is variable. Sites were initially recorded on 100 yd grid references, which were converted to 100 m grid references as the map data became metricated in the 1980s. Site locations potentially have only a 200 m accuracy. Since the mid-1990s sites recorded by hand-held GPS are generally located to ± 5 m.

While the distribution of recorded archaeological sites indicates areas where past Māori occupation was concentrated, the record is far from complete or comprehensive. A lack of recorded sites cannot be taken to mean that no archaeology will be found during works.

1.3 Code of Conduct Reference for Application Material

Although this is not a hearing before the Environment Court, I record that I have read and agree to comply with the Environment Court's Code of Conduct for Expert Witnesses as specified in the Environment Court's Practice Note 2023. I confirm that this report is within my area of expertise, except where I state that I rely upon the evidence or reports of other expert witnesses lodged forming part of the project's application material. I have not omitted to consider any material facts known to me that might alter or detract from the opinions expressed.

2 Methodology

The following digital sources were consulted:

- Site records from the New Zealand Archaeological Association (NZAA) Site Recording Scheme (SRS) were obtained from ArchSite (<https://nzarchaeology.org/archsite>).
- Records of previous archaeological investigations were obtained from the HNZPT digital library (<https://dl.heritage.org.nz/greenstone3/library/collection/pdf-reports/>).

- Aerial Photographs held by Land Information New Zealand (LINZ), Auckland Council and in other online archives were searched (<https://data.linz.govt.nz>; <https://www.aucklandlibraries.govt.nz/Pages/heritage-photographs.aspx>; <https://kura.aucklandlibraries.govt.nz>).
 - Historic aerial imagery was obtained from Retrolens (<https://retrolens.nz/>).
 - Historic maps and plans were obtained from the Quickmap programme.
 - Old newspaper articles were accessed through Papers Past online database(<https://paperspast.natlib.govt.nz/>).
 - Soil data was obtained from the Soils Map Viewer database maintained by Manaaki Whenua Landcare Research (<https://soils-maps.landcareresearch.co.nz/>).
 - Printed works were consulted from the Auckland Central Research Library.
 - The Auckland Council Cultural Heritage Inventory (CHI) and the Auckland Council GeoMaps GIS viewer were searched for any areas of cultural significance in the vicinity (<https://geomapspublic.aucklandcouncil.govt.nz/viewer/index.html>).
- All data was then integrated into the project GIS.

3 Background

Riverhead Forest is located on the borders of the East Coast Bays formation (Waitemata Group) of sandstone and mudstone hills with variable volcanic content, with late Pliocene to Middle Pleistocene pumiceous river deposits along the Rangitōopuni Stream (GNS). Soils are yellow clays with poor drainage and low fertility (SMap). The natural vegetation around the property would have been a mix of kauri and tawa.

3.1 *Pre-European Māori*

Riverhead is located on the Rangitōopuni Stream, accessible from the Waitematā Harbour. It is not known who first occupied the Waitematā region but it is likely that several different iwi held sway over time. Te Kawerau have traditional links to the area and Kumeū – Huapai was occupied by Te Uringutu hapū of Ngāti Whātua in 1824 (Smith 1899: 164). The region was probably an important transport corridor from the earliest times. Portages between the Kumeū River and Poitotoi (Brigham Creek) or Rangitōopuni / Riverhead allowed canoe access between the Waitematā and Kaipara Harbours (Smith 1899: 206), while walking tracks gave access to the Kaipara hinterland and East Coast Bays. The Ngongitepata portage ran from the east end of Riverhead to the southern coastline inside the Kaipara Harbour (Hooker 1997). Inland areas were rich in forest resources, enabling hunting by spear and snare of kāka, korerū, kiwi, weka, tūi and other small birds, while kiore were caught in pits or traps (Best 1903, cited in Hayward and Diamond 1978). Forest plants also provided a range of foods with fruits, roots and tubers from a variety of plants, while Māori who dwelt on the coasts of the Waitematā Harbour would have had an abundance of fish and shellfish resources at their disposal.

3.2 *19th century European history*

The earliest European settlers of the region found the area deserted (Harris 2002), and it is suggested that it had been depopulated by the Northern raids of the 1850s. Riverhead was never systematically settled, and no specific date is known for the first Europeans to occupy the area, although there is evidence of kauri being exploited for timber from 1841 (Madden 1966: 11). The area was part of the crown purchase of the Mahurangi and Omaha blocks in 1841 that covered most of the land from Pakiri to Takapuna. This purchase was carried out in haste and took another 13 years to complete due to counterclaims and settlements, but this did not prevent an influx of European settlers into the area. Once settlement was underway it was largely by single men who came to work on timber gangs or as gum diggers (Madden 1966: 11). The edges of the Kaipara Harbour were also settled, and the portage from the top of the Kumeū River to the Waitematā facilitated increased access through Riverhead. Ngāti Whātua were providing large amounts of market produce from Waimauku, and 84.5 tons of kauri gum was produced in 1854 (Dunsford 2002: 21).

As the population of Auckland increased, the volume of trade over the portage between the Kaipara and the Waitematā increased and so did the complaints about its condition and the difficulty of moving goods. A variety of proposals to deal with this were floated, including a canal and trams, but the railroad won out and the Helensville–Riverhead line, also known as the Kaipara or Portage railway, was begun in 1871 (Dunsford 2002: 31). The arrival of the railway increased the amount of shipping up and down the Waitematā to Auckland, and Riverhead, as the landing point, grew rapidly (Ussher 2022).

Kauri gum was traded internationally from the 1840s, with its resin used to make varnish. The majority of the gumfields were in Northland, though there were a number of gum fields across Auckland (Allcott n.d.). Gum digging was present as an industry in Riverhead by at least 1872 (*Auckland Star*, 6 April 1872: 2).

Diggers would use gumspears to probe the area in search of ancient kauri gum deposits. These spears varied in length from 1 m for use in hard ground, to up to 8 m for swamps (Hayward 1989). Once a deposit was identified, the gum would be removed using spades. Gum holes can vary significantly in size, with earlier gum holes ranging from 1–4 m deep, later reaching up to 12 m (Hayward 1989). Gum diggers moved around frequently, and resided in raupo whare, tents and other temporary shelters (Figure 2). Men would work and live both individually and in teams, returning to their shelters to process (scrape) the gum to ready it for sale (*Auckland Star* 5 May 1877: 2). Gum digging could be rough life, with repeated reports of violence and excessive drinking among gum diggers at Riverhead (*Auckland Star*, 6 April 1872: 2, 5 May 1877: 2).

After the gum was retrieved, it would be scraped for sale. Given the difficulty of transport, local merchants would often purchase the gum directly for money or store credit, to sell at the wharves of Auckland at an increased price. This gave the merchants an undue amount of power. To challenge the buying power of the merchants, a branch of the Federated Gumdiggers Union formed at the Wade in 1890, and 158 diggers promptly joined (Madden 1966: 117). Frequent reports of the price of gum were another method to ensure pricing was fair (*Auckland Star*, 3 May 1895). Between 1850 and 1900 kauri gum was a key international export from Auckland (Allcott n.d.).

By the early 20th century, large pieces of kauri gum were largely exhausted, and attention turned to lower quality, smaller kauri gum chips. This led to changes in gum digging techniques, from digging for gum directly to wet sieving the gum from the surrounding soils. In areas with large groups, trenches could be dug using an advance face method to search for gum, with trenches occurring 2–3 m high and 3–4 m wide (Hayward 1989). Trenches were also used to store water over the wetter months, so that gum digging could continue through the summer. This led to rows of horizontal trenches, 1–2 m deep, 40 cm wide and 3 m long. Later still, mechanical extraction methods became popular, with teams using tractors, diggers and mechanical processing plants (Hayward 1980).

Gum digging continued as an industry in Riverhead into the early 20th century, when supplies were exhausted. An image in the Auckland Museum collections dated 1880 shows Riverhead Forest. The landscape shown is rolling hills which had been largely stripped of vegetation (Figure 3). The state forest was established in 1926 (Madden 1966: 12).

A map by Madden (1966) shows the approximate location of named gum digging camps across the Riverhead Forest. The does not show any camps inside the proposed works area, with the nearest being Friday's Bridge, located 225 m north of the proposed works, and Pukeherekiekie, located 775 m northwest of the proposed works. It is unclear if these particular camps date to the 19th or early 20th centuries.

3.3 Archaeological background

The upper Waitematā has generally been under-surveyed archaeologically and was listed by Tatton as one of the priority coastline survey areas for Auckland (2001). In 2008–2009 the area was subject to archaeological survey by Auckland Council staff. There does not appear to be a formal report written for this survey, but in Ōkahukura / Lucas Creek alone there were more than 40 new archaeological sites recorded. Riverhead specifically is highly under recorded, particularly inland areas.



Figure 2. Three gumdiggers at Riverhead posing in front of a tent in 1888, showing their tools including gumspears, shovels, pots and a large piece of gum (Auckland Libraries 80-BIN083).



Figure 3. Image dated 1880 labelled 'Riverhead Forest. Proposed planting area' (Auckland Museum PH-ALB-471-2).



Figure 4. Madden (1966) map of Gumdiggers camps in Riverhead Forest, showing no camps or sites inside the proposed works area.

A 1982 survey of three burn areas extending across 293.2 ha of the Riverhead State Forest did not identify any archaeological features, though ground visibility was poor and only clear areas were surveyed. Areas surveyed did not include the proposed works areas (Pollock 1982).

An archaeological survey and investigation was carried out at R10/695 (Puketui camp), by Ian Lawlor in 1988. The camp is approximately 2.5 km west of the proposed works area, towards the centre of the Riverhead Forest. During investigations artefacts and features related to the camp were identified, including a historic midden, and an L shaped stone alignment interpreted as a whare foundation. Artefacts from the site date its use to between 1880 and 1914 (Lawlor 1988).

Recent monitoring at the Harkins Point location of the Kaipara/Portage Railway Terminus (R10/1487), recorded by Ussher (2020) did not identify any archaeological material (Moses 2023).

Archaeological sites in Riverhead tend to be concentrated around waterways, with most adjacent to the Rangitōopuni river. This includes both pre-European Māori and 19th century sites.

The Riverhead Mill R10/721, located on the banks of the Rangitōopuni River approximately 650 m to the east of Lot 2, has been subject to a number of surveys (Plowman 2010; Clough et al 2011; Shackles et al. 2020). The site comprises the significant historic remains of three 19th century industrial mill operations, a sawmill (c. 1845–1855), a flour mill (1855–1895) and subsequent paper mill (1900–1923). Monitoring at the site for a housing development identified an extensive range of features which were excavated and recorded, including water races, holding ponds and house platforms. DP 15592, drawn in 1921, shows the proximity of the mill reservoir and water race to the proposed works, with the mill reservoir located approximately 115 m south of Lot 2, and the water race extending along the south and east border of Lot 2 (Figure 5) (Shackles et al. 2020).

Timber Mill R12/1376 is also recorded in close proximity to Lot 2 of the proposed works. The mill was recorded in 2013 during monitoring for a subdivision at 15 – 17 Duke St, located directly to the east of Lot 2. The site consisted of a rock cut mill race; a mill pond; a wheel race; a pond below the wheel race and a tail race draining back in to the Wautaiti Stream. Posthole and stone post pads adja-

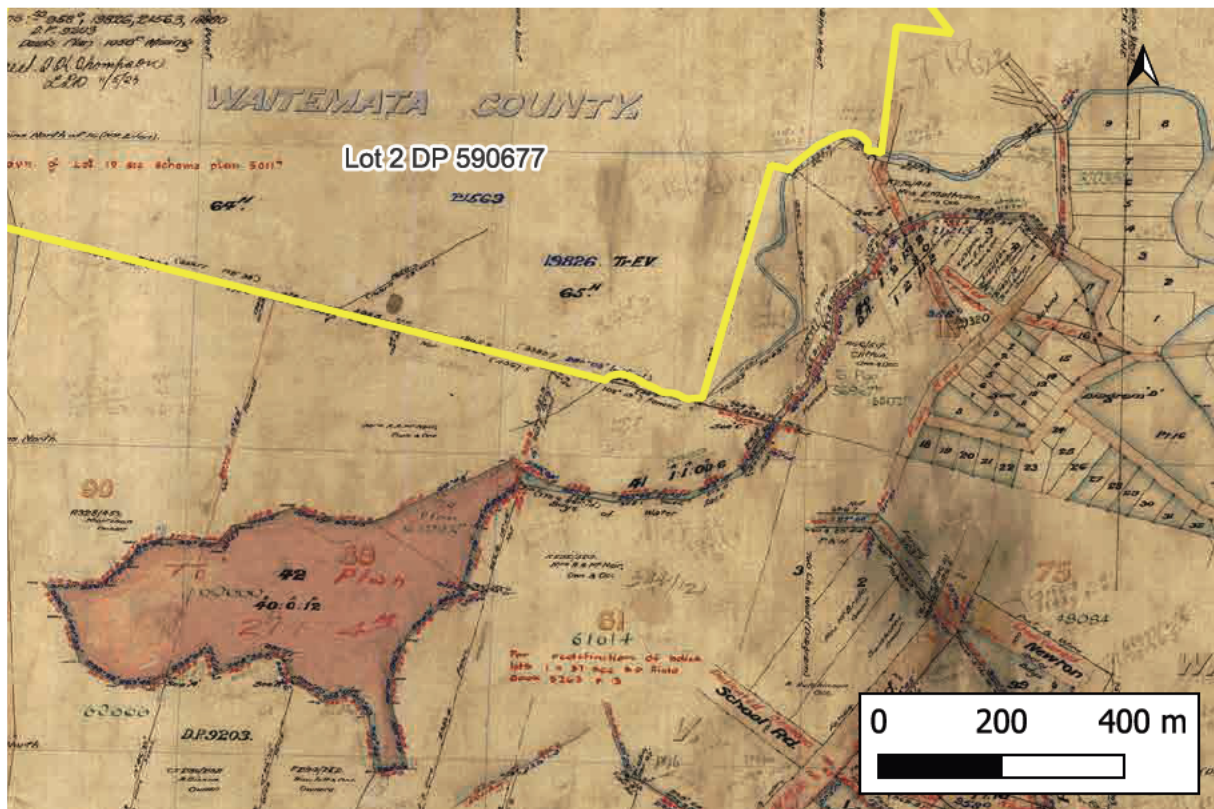


Figure 5. DP 15592 drawn in 1921, showing the proximity of the R10/721 mill reservoir (red) and race (blue) to the proposed works outlined in yellow.

cent and to the west of the races indicated the position of the mill house and associated structures. While the investigation focused on the eastern side of the Wautaiti Stream, survey did note features related to the mill on the western side of the stream, directly abutting the Rangitoopuni project. These included a possible wheel pit and cut of mill structure for an earlier phase of the mill which the report notes may have been located on the western side of the original course of the Wautaiti Stream. These features were located approximately 65 m from the proposed works at Lot 2 (Shackles et. al 2022).

In Riverhead Forest itself there are several gumdigging sites. These are both gumdigging holes (CHI items #17228; #17234), and camps such as Pukeatua Depot (R10/695). In addition to those recorded in the NZAA and CHI, there are several gumdigging sites shown in a map by Madden (1966). These include Friday's Bridge, 260 m north of Lot 2, Pukeherekiekie 850 m northwest of Lot 1, and Carters Mill, 250 m east of Lot 2 (Figure 4). None of these sites are in the direct vicinity of the proposed works.

4 Assessment

The following assessments of values and significance relate only to archaeological values. Other interested parties, in particular mana whenua, may hold different values regarding the proposed works.

The proposed works involve the creation of a Countryside Living subdivision 208 across the entirety of Lot 1 DP 590677. This subdivision will be made up of 208 lots, and community facilities including a community building, residents carpark, bush trail and outdoor recreation areas, such as a basketball and tennis court. A retirement village is also proposed for a portion of Lot 2 DP 590677. This retirement village will be made up of 296 units (260 villas and 36 care units), as well as a café,

wellness centre, and amenity building. A pathway will also extend from the retirement village to the Wautaiti Stream reserve (Figure 6 and Figure 7).

There are two archaeological sites within 1 km of the proposed works. These are 19th Timber Mill R12/1376 and The Riverhead Mill R10/721, which are both located on waterways around the southeast corner of Lot 2 of the proposed works. Both these sites relate to 19th European occupation of Riverhead, and the exploitation of the forest. Investigations at Timber Mill R12/1376 found features extending up to 50 m from the proposed pathway, however there is no evidence that the site extended beyond what is recorded.

Inside Riverhead Forest itself are a number of 19th and early 20th century gumdigging sites, however the only two within 1 km of the proposed works parcels are both early 20th century sites recorded on the basis of Madden (1966). CHI item #17234 (gum digging holes) is located approximately 450 m to the northwest of Lot 1. CHI item # 17228 (gum digging holes) is located 550 m to the north of Lot 1. Madden (1966) also lists several gumdigging camps and associated sites, not all of which are included in the CHI or the SRS. Three of these are located within 1 km of the proposed works – Pukeherekiekie camp, Friday's Bridge, and Carters Mill (Figure 4).

There are no pre-European Māori sites recorded inside, or within 1 km of the proposed works.

Aerial photographs from the 1940s through to the present day show that the proposed work areas have been through at least 3 forestry rotations, with no archaeological sites visible. 19th and early 20th century maps and plans also do not show any structures or evidence of archaeology inside the area of proposed works. There are also no indications of archaeological sites visible in hillshade models derived from LiDAR.

Earthworks for the proposed pathway are closest to previously recorded archaeological sites, extending to within 50 m of Timber Mill R12/1376. Aerial photographs taken in 2017 show the location after a forestry harvest, when ground contours are visible. No evidence of archaeological sites are visible (Figure 7).

There is no reasonable cause to suspect that archaeological sites will be negatively impacted by the proposed works.

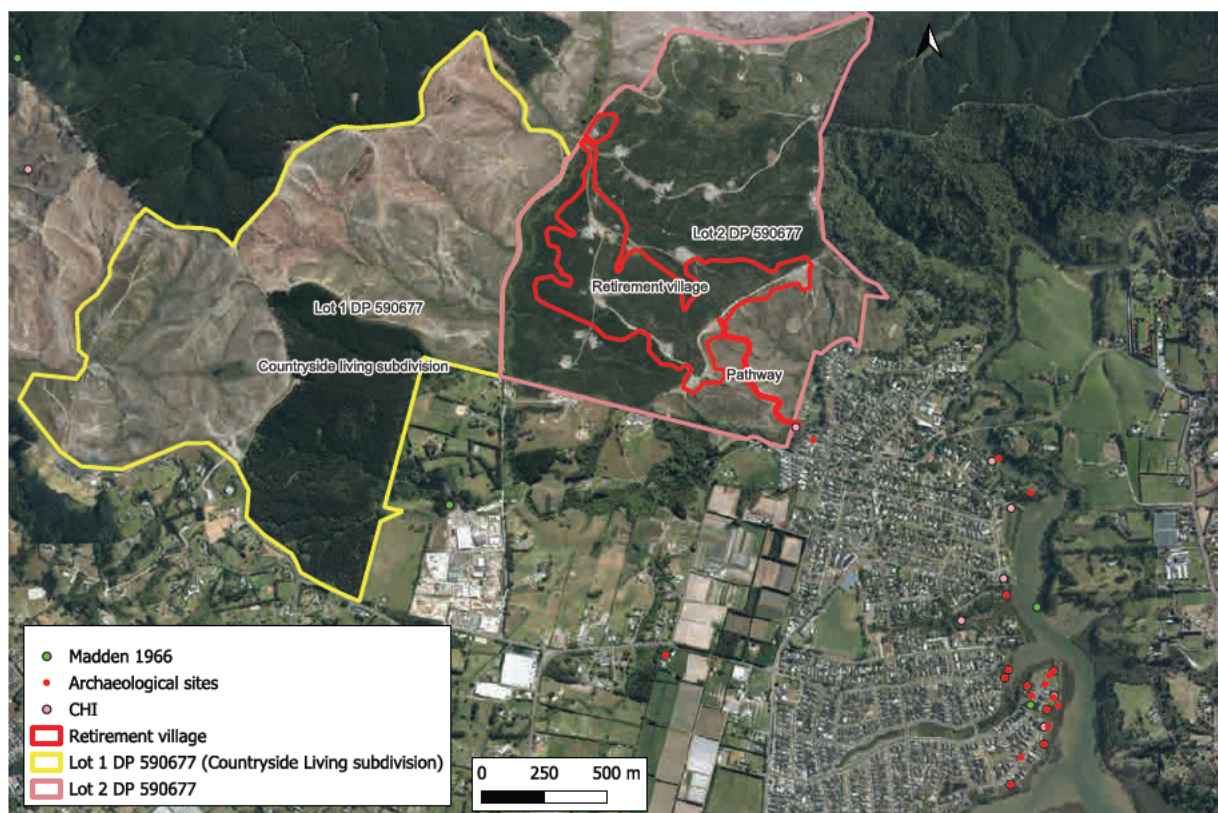


Figure 6. Overview of proposed works parcels and earthworks

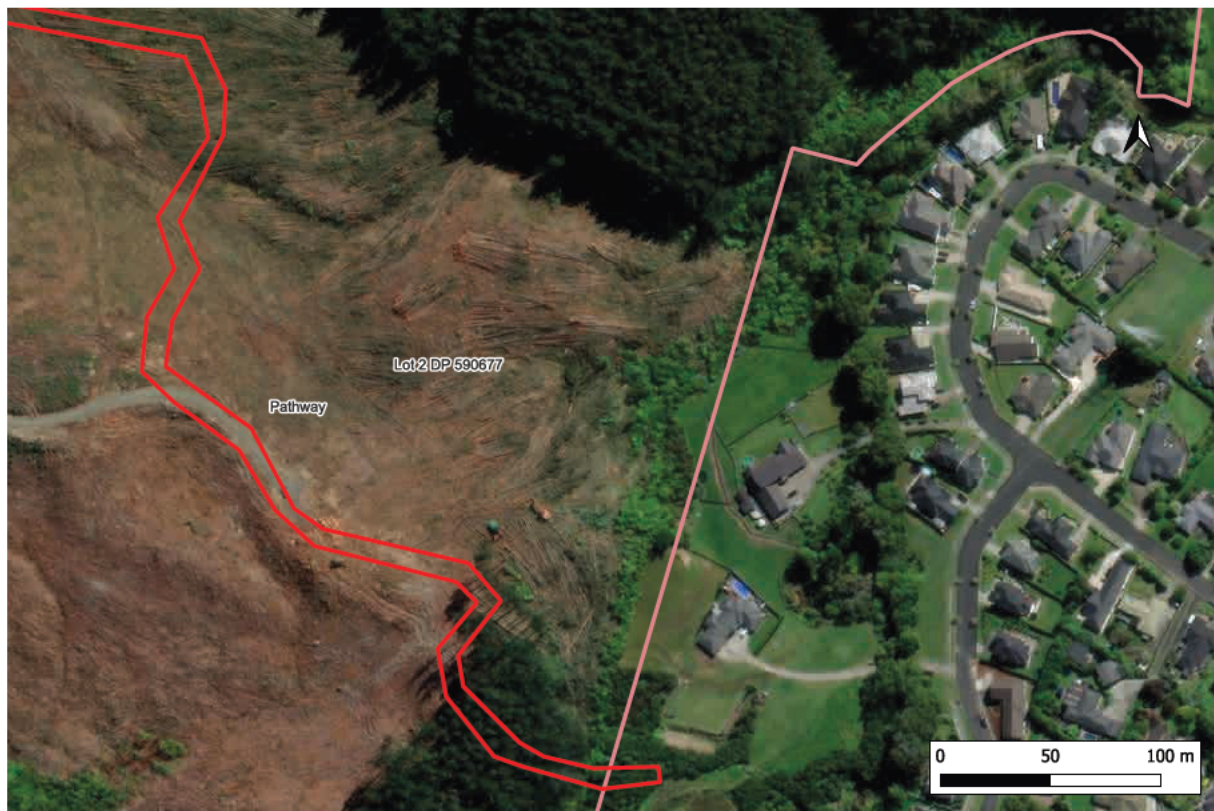


Figure 7. Location of the proposed pathway in 2017, after the area had been harvested.

5 Recommendations

These recommendations are made only on the basis of the archaeological values that have been outlined above. Any other values associated with special interest groups, including mana whenua can only be determined by them. It is recommended that:

- works are undertaken under the Archaeological Accidental Discovery Rule in Chapter E11.6.1 of the Auckland Unitary Plan;
- since archaeological survey cannot always detect sites of traditional significance to Māori, or wāhi tapu, the appropriate tangata whenua authorities should be consulted regarding the possible existence of such sites, and the recommendations in this report.

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